

**LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT
RESPONSE TO IAAC PUBLIC INFORMATION REQUESTS, ROUND 1**

Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
May 31, 2022

**ATTACHMENT 4: SUMMARY OF POTENTIAL EFFECTS ON
CURRENT USE OF LANDS AND RESOURCES FOR TRADITIONAL
PURPOSES BY INDIGENOUS PEOPLES**

**LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT
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Abbreviations

%	percent
AEMP	Aquatic Effects Monitoring Plan
AIS	aquatic invasive species
AMP	Access Management Plan
ATV	all-terrain vehicle
BMP	best management practice
BON	Brokenhead Ojibway Nation
BRFN	Black River First Nation
ca.	circa
CEA Agency	Canadian Environmental Assessment Agency
CEMP	Construction Environmental Management Plan
CHRPP	Cultural and Heritage Resources Protection Plan
CRP	Complaint Resolution Plan
DFO	Department of Fisheries and Oceans Canada
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EOC	Emergency Outlet Channel
EPP	Environmental Protection Plan
FPDI	First Peoples Development Inc.
FRCN	Fisher River Cree Nation
FRWCS	Fairford River Water Control Structure

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FSC	food, social and ceremonial
GHA	Game Hunting Area
GWMP	Groundwater Management Plan
ha	hectare
HRIA	Heritage Resources Impact Assessment
HRPP	Heritage Resources Protection Plan
HWFN	Hollow Water First Nation
IAAC	Impact Assessment Agency of Canada
ICSER	Indigenous Consultation and Stakeholder Engagement Report
IISD	International Institute for Sustainable Development
LAA	local assessment area
LMOC	Lake Manitoba Outlet Channel
LSFN	Little Saskatchewan First Nation
LSM	Lake St. Martin
LSMFN	Lake St. Martin First Nation
LSMOC	Lake St. Martin Outlet Channel
LWR	Lake Winnipeg Regulation
m	metre
MBCDC	Manitoba Conservation Data Centre
MMF	Manitoba Metis Federation
MMTP	Manitoba-Minnesota Transmission Project
MSD	Manitoba Sustainable Development
NEB	National Energy Board

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NHCN	Norway House Cree Nation
OEMP	Operation Environmental Management Program
PDA	Project development area
PDNAC	Pine Dock Northern Affairs Community
PER	Project Environmental Requirement
PFN	Pinaymootang First Nation
PR	provincial road
PRFN	Poplar River First Nation
QMP	Quarry Management Plan
RAA	regional assessment area
ROW	right-of-way
RVMP	Revegetation Management Plan
SAR	species at risk
SBOFN	Sandy Bay Ojibway First Nation
SFN	Sagkeeng First Nation
SMP	Sediment Management Plan
SWMP	Surface Water Management Plan
TCN	Tataskweyak Cree Nation
TSS	total suspended solids
WCP	Wetland Compensation Plan
WetMP	Wetland Monitoring Plan
WMP	Wildlife Monitoring Plan

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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Aghaming Northern Affairs Community <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p>Manitoba Infrastructure has obtained no information about Aghaming Northern Affairs Community hunting or trapping or traditionally harvested species in the Regional Assessment Area (RAA) through the Indigenous consultation and engagement program or a review of publicly available literature</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> moose, mule deer, white-tailed deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, muskrat, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p> <p><u>Locations:</u> No specific hunting or trapping sites or locations used by Aghaming Northern Affairs Community within the RAA were identified through the Indigenous Consultation and Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>In the absence of specific information about current use by Aghaming Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping Aghaming Northern Affairs Community occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Aghaming Northern Affairs Community. While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the Local Assessment Area (LAA), which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the Lake St. Martin Outlet Channel (LSMOC), could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the Wildlife Monitoring Plan (WMP), Access Management Plan (AMP), Revegetation Management Plan (RVMP), Wetland Compensation Plan (WCP), and Environmental Protection Plan (EPP), and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the rights-of-way (ROWs). Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., Manitoba Sustainable Development [MSD] conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive 	<p>The success of wildlife mitigation will be monitored through the Environmental Management Plans (EMPs). These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also includes a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The Complaint Resolution Plan (CRP) (provided in Attachment 1 – Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>wetland vegetation; however, effects from the Lake Manitoba Outlet Channel (LMOC) will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.2% of the existing area in the LAA..</p>	<p>habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the Project Development Area (PDA; Chapter 8, Section 8.2).</p> <ul style="list-style-type: none"> Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project Environmental Impact Statement (EIS) predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in the monitoring program. No feedback has been received from Aghaming Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group y and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and First Peoples Development Inc. (FPDI) to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet</p>

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				<p>Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER (Indigenous Consultation and Stakeholder Engagement Report), the Summary of Concerns and the Engagement Narrative (provided in Attachment 3), Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Aghaming Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Aquatic Environment and Fishing				
<p><u>Issues and Concerns:</u></p> <p>Aghaming Northern Affairs Community is concerned about effect the channel will have on water levels on the lakes.</p> <p>Aghaming Northern Affairs Community is concerned about nutrients moving through the water system and being transported by the channel into the lakes.</p> <p>Aghaming Northern Affairs Community is concerned the channel will help introduce non-native fish or other aquatic species.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye (pickerel).</p> <p><u>Locations:</u> No specific fishing locations used by Aghaming Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by Aghaming Northern Affairs Community presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Aghaming Northern Affairs Community to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Black River First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality,</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the Aquatic Effects Monitoring Plan (AEMP), which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to</p>

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		<p>changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects could also involve the introduction of aquatic invasive species (AIS) such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43).</p> <ul style="list-style-type: none"> • Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. • Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the Surface Water Management Plan (SWMP), Sediment Management Plan (SMP), Groundwater Management Plan (GWMP), Project Environmental Requirements (PER), Quarry Management Plan (QMP), and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 metres (m) from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted “in the dry” and 	<p>verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) (provided in Attachment 1 – Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Aghaming Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and</p>

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			<p>not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat.</p> <ul style="list-style-type: none"> Should blasting be required that may affect the aquatic environment, Department of Fisheries and Oceans Canada (DFO) blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the both channels will be fully armoured to reduce erosion. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). To address the potential for stranding and fish kill, baseflow in the channels will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. As described in Volume 	<p>communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the the ICSE R, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3),. Manitoba Transportation and Infrastructure will review any information about aquatic environment and fishing that Aghaming Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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			<p>2, Section 2.4.2 of the Project EIS, the channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered.</p> <ul style="list-style-type: none"> Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	
Plants and Plant Harvesting				
<p>Manitoba Infrastructure has obtained no information about Aghaming Northern Affairs Community plant harvesting or traditionally harvested plant species in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>¹, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>In the absence of specific information about current use by Aghaming Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Aghaming Northern Affairs Community to occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Aghaming Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction... A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and Biosecurity Management Plan also include a vegetation monitoring component (provided in Attachment 1 – Updated Environmental Management Plans).</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory</p>

¹ *Weke* is also referred to as sweet flag, rat root, *weegis*, *weekay*, *weeke*, *weekey*, and *wikkaii*. *Weke* is used in this table unless other preferred names are identified by Indigenous groups.

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	<p>(fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice (Project EIS, Volume 3, Section 8, Table 8.2-A6).</p> <p><u>Locations:</u> No specific plant harvesting sites or locations used by Aghaming Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats (Project EIS Volume 3, Section 8.2.4.4). Out of the 120 listed traditional use plant species, half are ranked by the Manitoba Conservation Data Centre (MBCDC) as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<ul style="list-style-type: none"> As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for reclamation restoration of project disturbed areas outside of the channels, including erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. Native and non-native plant species will be used in reclaimed areas. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation 	<p>committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) (provided in Attachment 1 – Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Aghaming Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating</p>

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			<p>are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3), Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Aghaming Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Travel Routes				
<p>Manitoba Infrastructure has obtained no information about Aghaming Northern Affairs Community use of travel routes in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific travel routes used by Aghaming Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by Aghaming Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by Aghaming Northern Affairs Community to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the Operation Environmental Management Program (OEMP) includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP (Access Management Plan) addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the Lake St. Martin Emergency Outlet Channel (EOC) inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Aghaming Northern Affairs Community to date.</p>

**LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT
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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<ul style="list-style-type: none"> As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed at specific locations. Resource users will be able to continue to travel in the area but crossing outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
				<p>to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3).Manitoba Transportation and Infrastructure will review any information about travel routes that Aghaming Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p>Manitoba Infrastructure has obtained no information about Aghaming Northern Affairs Community use of habitation, cultural and spiritual sites in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations used by Aghaming Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about habitation, cultural and spiritual sites and areas identified by Aghaming Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Aghaming Northern Affairs Community to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (circa [ca.] 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction Heritage Resources Impact Assessment (HRIA) identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The Heritage Resources Protection Plan (HRPP) describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<p><u>Residual Effects after Mitigation:</u></p> <p>Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Aghaming Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Aghaming Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>				
<p>Berens River Northern Affairs Community <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u> Berens River Northern Affairs Community reported that hunting is an important activity for Indigenous groups Berens River Northern Affairs Community hunt and trap along the east side of Lake Winnipeg. <u>Sources:</u> CEA Agency 2017</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> moose, mule deer, white-tailed deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, muskrat, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge. <u>Locations:</u> The hunting and trapping sites identified by Berens River Northern Affairs Community hunt and trap are outside the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about hunting and trapping by Berens River Northern Affairs Community presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Berens River Northern Affairs Community occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Berens River Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 5:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations, and the 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP also include a vegetation monitoring component, and adaptive management measures to address unanticipated effects.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>management of access will assist in addressing potential overharvesting.</p> <ul style="list-style-type: none"> Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by</p>	<p>current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Berens River Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring</p>

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			<p>Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Berens River Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u> Berens River Northern Affairs Community reported that Lake Winnipeg is a preferred fishing location.</p> <p><u>Sources:</u> CEA Agency 2017</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye (pickerel).</p> <p><u>Locations:</u> Portions of Lake Winnipeg are located within the PDA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat or change in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Berens River Northern Affairs Community presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Berens River Northern Affairs Community occur throughout the RAA and that species commonly understood to be caught by Indigenous peoples that occur within the RAA may be fished by Berens River Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt which are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> • Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. • Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). • Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. • Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such as water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) (provided in Attachment 1 – Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 metre (m) from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted “in the dry” and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. • Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of both channels will be fully armoured to reduce erosion. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when 	<p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Berens River Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD to assist in the development of</p>

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			<p>mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> To address the potential for stranding and fish kill, baseflow both channels will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS</p>	<p>training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Berens River Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
Plants and Plant Harvesting				
<p><u>Existing Conditions:</u> Berens River Northern Affairs Community reported that plant, timber, and firewood harvesting occur along the east side of Lake Winnipeg.</p> <p><u>Sources:</u> CEA Agency 2017</p>	<p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> The harvesting locations identified by Berens River Northern Affairs Community harvest plants are outside the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Berens River Northern Affairs Community presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Berens River Northern Affairs Community to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Berens River Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA)..</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the RVMP. The WetMP and best management practice (BMP; provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual</p>

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			<ul style="list-style-type: none"> Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Berens River Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready</p>

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				<p>workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3), Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Berens River Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate</p>
Travel Routes				
<p><u>Existing Conditions:</u> Berens River Northern Affairs Community reported that the east side of Lake Winnipeg contains travel routes.</p> <p><u>Sources:</u> CEA Agency 2017</p>	<p><u>Locations:</u> The travel routes identified by Berens River Northern Affairs Community are outside the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Berens River Northern Affairs Community presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of travel routes by Berens River Northern Affairs Community occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Berens River Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail),</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. 	<p>The success of mitigation for travel routes will be monitored through the EMPs These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized</p>

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		<p>physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in</p>	<ul style="list-style-type: none"> • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. • As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered</p>	<p>in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Berens River Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD to assist in the development of</p>

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		<p>the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>		<p>training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3),. Manitoba Transportation and Infrastructure will review any information about travel routes that Berens River Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate</p>
Habitation, Cultural and Spiritual Sites				
<p><u>Existing Conditions:</u> Berens River Northern Affairs Community reported that camping, sacred, and ceremonial places are located along the east side of Lake Winnipeg.</p> <p><u>Sources:</u> CEA Agency 2017</p>	<p><u>Locations:</u> The camping, sacred, and ceremonial places identified by Berens River Northern Affairs Community are located outside the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>Manitoba Infrastructure acknowledges that the information about location of habitation, cultural and spiritual sites and areas Berens River Northern Affairs Community presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Berens River Northern Affairs Community occur throughout the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. 	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
May 31, 2022

Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<ul style="list-style-type: none"> An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><i>Residual Effects after Mitigation:</i> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Berens River Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities,</p>

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				<p>including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3), Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Berens River Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Black River First Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u></p> <p>Black River First Nation reported hunting and trapping species that include moose, elk, white-tailed deer, black bear, wolf, coyote, rabbit, mink, river otter, beaver, rabbits, geese, marten, fisher, muskrat, lynx, fox, beaver, bobcat, porcupine, coyote, chipmunk, buffalo, duck.</p> <p>Black River First Nation reported that the abundance of wildlife is critical for the culture and way of life of Black River First Nation.</p> <p>Black River First Nation reported a decline in waterfowl and furbearers that depend on the lake (not named) and the environs.</p> <p>Black River First Nation reported that there used to be muskrats, beaver, ducks and all types on wildlife in the river (not named), but now you don't see it because the river is contaminated.</p> <p>Black River First Nation reported that there used to be good muskrat trapping on Patricia Beach.</p> <p>Black River First Nation reported that there is no more trapping at Folster Lake either and that the lake is oily.</p> <p><u>Issues and Concerns:</u></p> <p>Black River First Nation indicated that the presence of highway and road activity has a negative effect of wildlife. Black River First Nation reported that hunting has been negatively affected by clear cutting, farming and gas lines, oil pipelines, railways highways, power lines, and wind farms.</p> <p>Black River First Nation is concerned with the reduced quantity and quality of habitat on Lake Winnipeg.</p> <p>Black River First Nation is concerned with reduced access to hunting and trapping areas due to Project construction and operation and presence of permanent infrastructure that will bisect the land.</p> <p>Black River First Nation is concerned with altered movement, use, or avoidance by wildlife of the Project and surrounding areas due to Project construction and operation.</p> <p>Black River First Nation is concerned with increased wildlife mortality due to potential vehicle-wildlife collisions from increased vehicle traffic associated with Project construction and operation.</p>	<p><u>Species identified by Black River First Nation:</u> moose, elk, white-tailed deer, black bear, wolf, coyote, rabbit, mink, river otter, beaver, rabbits, geese, marten, fisher, muskrat, lynx, fox, beaver, bobcat, porcupine, coyote, chipmunk, buffalo, snakes, frogs, duck.</p> <p><u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> mule deer, wolverine, short-tailed weasel, long-tailed weasel, squirrel, mallard, ruffed grouse, sharp-tailed grouse, bald eagle, prairie chicken, partridge.</p> <p><u>Locations:</u> Portions of Lake Winnipeg are in the PDA. Folster Lake, Patricia Beach and the Winnipeg River are outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about hunting and trapping by Black River First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Black River First Nation occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Black River First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife— either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Black River First Nation is concerned with cumulative impacts of development resulting in the loss of traditional lands and resources.</p> <p><u>Sources:</u></p> <p>MMTP 2015</p> <p>Manitoba Hydro 2015b</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.5</p> <p>Manitoba Infrastructure Indigenous Engagement Program BRFN, BON and HWFN 2019</p>		<p>wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>ROW and not extend beyond the PDA (Chapter 8, Section 8.2).</p> <ul style="list-style-type: none"> Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>(feedback/input).a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Black River First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for</p>

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				<p>Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Black River First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u></p> <p>Black River First Nation have identified species that include pickerel (walleye), sturgeon, sunfish and catfish.</p> <p>Black River First Nation has reported that commercial fishing on Lake St. Martin is an important economic activity and must be protected.</p> <p>Black River First Nation reported fishing for sturgeon at Lac du Bonnet.</p> <p>Black River First Nation reported that fishing areas include the Winnipeg River, Jessica Lake, Lone Island Lake, Betula Lake, and Sturgeon Point.</p> <p>Black River First Nation reported fish are caught that have bumps on their bodies, scabs and boils on their gills, and tumors. Their meat is the wrong colour and doesn't taste right.</p> <p>Black River First Nation reported that invasive species are coming in that do not belong, such as zebra mussels; they affect the health of Lake Winnipeg.</p> <p>Black River First Nation reported that fishermen are having a hard time catching their limits.</p> <p>Black River First Nation reported that there many of the lakes on the reserve have dried up.</p> <p>Black River First Nation reported that over time, government restrictions have changed the way they are able to fish. Black River First Nation stated that they are no longer able to catch sturgeon, a fish that was so important to their ancestors.</p>	<p><u>Species identified by Black River First Nation:</u> pickerel, sturgeon, sunfish, catfish.</p> <p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> white sucker, whitefish, common carp, northern pike, burbot, trout, perch, sauger, walleye.</p> <p><u>Locations:</u> Portions of Lake Winnipeg are in the PDA. Sturgeon Bay and Sturgeon Point are in the PDA. Lone Island Lake, Betula Lake, Jessica Lake, Lac du Bonnet and Winnipeg River are outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Black River First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Black River First Nation occur throughout the RAA and that species commonly understood to be caught by Indigenous peoples that occur within the RAA may be fished by Black River First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St.</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other</p>

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<p><u>Issues and Concerns:</u></p> <p>Black River First Nation has reported that that commercial fishing on Lake St. Martin is an important economic activity and must be protected. Black River First Nation has reported that fishing on Lake St. Martin is poor, species have changed, pickerel are hard to find and carp are doing damage.</p> <p>Black River First Nation reported a decline in fish and wetlands that depend on the lake (not named) and the environs.</p> <p>Black River First Nation has concerns regarding invasive species and concerns about the effects of zebra mussels on Lake Winnipeg and the water treatment plant (not specified).</p> <p>Black River First Nation has concerns about effects that the emergency channel will have on creeks.</p> <p>Black River First Nation is concerned that increased water levels on Lake Winnipeg will result in erosion of land.</p> <p>Black River First Nation is concerned with the reduced quantity and quality of habitat on Lake Winnipeg.</p> <p>Black River First Nation is concerned that the Project will impact members ability to use and enjoy disappearing shoreline of the reserve, including loss of land use.</p> <p>Black River First Nation is concerned with cumulative impacts of development resulting in the loss of traditional lands and resources.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.5</p> <p>Manitoba Infrastructure Indigenous Engagement Program BRFN, BON and HWFN 2019</p>		<p>Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>allow fish time to move away from the structures.</p> <ul style="list-style-type: none"> Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. The majority of Project channel excavation and construction will be conducted “in the dry” and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. 	<p>current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Black River First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring</p>

**LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT
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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
			<ul style="list-style-type: none"> • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). • To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> • Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. 	<p>programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Black River First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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			<ul style="list-style-type: none"> Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p>Measures to avoid or reduce effects to commercial fishing are identified in the Construction Environmental Management Plan (CEMP) and include:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will engage with commercial fish harvesters, anglers, local resource users, and MSD Regional Officials to address potential conflict, disturbance, or access restrictions to fishing/harvesting areas in the PDA and LAA, and availability of fish resources. <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	
Plants and Plant Harvesting				
<p><u>Existing Conditions:</u></p> <p>Black River First Nation have reported harvesting species that include alumroot, American hazelnut, balsam fir, balsam poplar, baneberry, beaked hazelnut, Bicknell's geranium, blackberry, blueberry, bunchberry, bur oak, Canada fleabane, Canada goldenrod, Canada mayflower, Canadian gooseberry, cedar, choke cherry, columbine, dewberry, dogbane, downy arrowwood, fireweed, giant hyssop, hawthorn, highbush cranberry, Labrador tea, Marsh hedge-nettle, meadowsweet, northern bugle-weed, pin cherry, plum, prairie rose, raspberry, rattlesnake root, red clover, red osier dogwood, sand cherry, Saskatoon berry, self-heal, Seneca root, shrubby cinquefoil, smooth goldenrod, Snowberry, Speckled alder, St. John's wort, sweetgrass, tall cinquefoil, tamarack, three-toothed cinquefoil, <i>weke</i> (also known as <i>weekay</i>, or rat root), wild black currant, wild grapes, wild mint, wild rice, wild rose, wild strawberry, wintergreen, wood lily, yarrow, yellow avens, yellow evening primrose, potato.</p> <p>Black River First Nation identified plant species that include wild rice, chokecherries and wild plums, <i>weekay</i>, Seneca root,</p>	<p><u>Species identified by Black River First Nation:</u> alum root, American hazelnut, balsam fir, balsam poplar, baneberry, beaked hazelnut, Bicknell's geranium, blackberry, blueberry, bunchberry, bur oak, Canada fleabane, Canada goldenrod, Canada mayflower, Canadian gooseberry, cedar, chokecherry, columbine, dewberry, dogbane, downy arrowwood, fireweed, giant hyssop, hawthorn, highbush cranberry, Labrador tea, marsh hedge-nettle, meadowsweet, northern bugle-weed, pin cherry, plum, prairie rose, raspberry, rattlesnake root, red clover, red osier dogwood, sand cherry, Saskatoon berry, self-heal, Seneca root, shrubby cinquefoil, smooth goldenrod, snowberry, speckled alder, St.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>During a flood event, water flows across the land and can pick up sediments that contain chemicals such as fertilizers, pesticides and other contaminants. Under current conditions, this material flows through the Fairford River and the Dauphin River during floods. The Project will reduce the amount of overland flooding and is therefore expected to reduce the amount of contamination entering Lake Winnipeg.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Black River First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the PERs, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Any storage and use of chemicals is strictly regulated and application of chemicals requires training and a permit. Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction. 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other</p>

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<p>cedar, Labrador tea, willow, rosehips, poplar, potato, raspberries, blueberries.</p> <p>Black River First Nation reported that berries and wild rice are important foods.</p> <p>Black River First Nation reported that wild rice and <i>weekay</i> is harvested from the shores of Lake Winnipeg, Hollow Water, and the Brokenhead River</p> <p>Black River First Nation reported that wild rice is harvested in the Whiteshell but also in various small lakes and along the shorelines of rivers throughout Black River First Nation traditional territory.</p> <p>Black River First Nation reported that medicines are harvested in the Whiteshell; along the Winnipeg River, the Brokenhead Boardwalk.</p> <p>Black River First Nation reported that poplar, willow, Labrador tea, potato and rosehips can be used for medicine.</p> <p><u>Issues and Concerns:</u></p> <p>Black River First Nation is concerned that increasing use of chemicals, regulation of water levels, and changes to water quality also have major impacts on wild rice, berries and other plants harvested.</p> <p>Black River First Nation is concerned with the reduced quantity and quality of habitat on Lake Winnipeg.</p> <p>Black River First Nation is concerned with reduced access to culturally important gathering resources such as plant species of cultural, spiritual, and medicinal importance due to permanent structures bisecting the landscape.</p> <p>Black River First Nation is concerned about disturbance to culturally important gathering resources such as plant species of cultural, spiritual, and medicinal importance through the Project construction and operation and presence of permanent structures.</p> <p>Black River First Nation is concerned with cumulative impacts of development resulting in the loss of traditional lands and resources.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program MMTP 2015 BRFN, BON and HWFN 2019</p>	<p>John's wort, sweetgrass, tall cinquefoil, tamarack, three-toothed cinquefoil, <i>weke</i> (also known as <i>weekay</i>, or rat root), wild black currant, wild grapes, wild mint, wild rice, wild rose, wild strawberry, wintergreen, wood lily, yarrow, yellow avens, yellow evening primrose, potato.</p> <p><u>Other plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> Manitoba maple, golden chanterelle, hawthorn, morel, jackpine, bracken (fiddlehead), red currant, cloud berry, snowberry, dandelion, dwarf blueberry, bog and logan berry.</p> <p><u>Locations:</u> Portions of Lake Winnipeg are in the PDA. Whiteshell Provincial Park, the Winnipeg River, Brokenhead River and Hollow Water are located outside of the RAA.</p>	<p>potential for plant harvesting by Black River First Nation occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Black River First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration • As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). • Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. • The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical 	<p>current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Black River First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring</p>

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			<p>vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Black River First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Travel Routes				
<p><u>Existing Conditions:</u> Black River First Nation reported that rivers were particularly important to their communities, stating “we took these waterways up from the south when we first arrived in this land. The rivers were our highways. The important sites where we camped, harvested, gave birth, held ceremonies, and buried our loved ones, were all located along the waterways.”</p> <p>Black River First Nation noted that they find artifacts all along the shores of rivers that show how their ancestors used the waterways for travel routes.</p> <p><u>Issues and Concerns:</u> Black River First Nation reported that access to Lake St. Martin is a concern.</p> <p><u>Sources:</u> Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.5 BRFN, BON and HWFN 2019</p>	<p><u>Locations:</u> Lake St. Martin is within the PDA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Black River First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of travel routes by Black River First Nation occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Black River First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. • As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7)(Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Black River First Nation to date.</p>

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		<p>on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition</p>

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				<p>to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Black River First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate</p>
Habitation, Cultural and Spiritual Sites				
<p><u>Existing Conditions:</u></p> <p>Black River First Nation reported that there are important sites where they have camped, harvested, gave birth, held ceremonies, and buried loved ones, are all located along the waterways.</p> <p><u>Issues and Concerns:</u></p> <p>Black River First Nation is concerned about altered cultural experience due to noise, dust and light pollution associated with Project construction and operation and the presence of permanent structures.</p> <p>Black River First Nation is concerned about loss, damage, or disturbance of areas of cultural, historical, archaeological, paleontological, or architectural significance through Project related disturbance.</p> <p>Black River First Nation is concerned about reduced or altered ability to transmit knowledge or cultural practices due to changes in landscape and traditional resources.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program BRFN, BON and HWFN 2019</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about location of habitation, cultural and spiritual sites and areas identified by Black River First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Black River First Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also</p>

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		<p>in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<p>of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected</p>	<p>been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Black River First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify</p>

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				<p>anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Black River First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
<p>Bloodvein First Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u></p> <p>Bloodvein First Nation reported hunting and trapping species that include moose, geese, caribou, ducks and rabbits.</p> <p>Bloodvein First Nation is concerned with reduced access to hunting and trapping areas due to Project construction and operation and presence of permanent infrastructure that will bisect the land.</p> <p>Bloodvein First Nation is concerned with disturbance of wildlife and wildlife habitat due to Project construction and operation and presence of permanent infrastructure that will bisect the land.</p> <p>Bloodvein First Nation is concerned with altered movement, use, or avoidance by wildlife of the Project and surrounding areas due to Project construction and operation.</p> <p>Bloodvein First Nation is concerned with increased wildlife mortality due to potential vehicle-wildlife collisions from increased vehicle traffic associated with Project construction and operation.</p> <p>Bloodvein First Nation is concerned with cumulative impacts of development resulting in the loss of traditional lands and resources.</p>	<p><u>Species identified by Bloodvein First Nation:</u> moose, geese, caribou, ducks, rabbits.</p> <p><u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> mule deer, white-tailed deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, fisher, muskrat, squirrel, mallard, ruffed grouse, sharp-tailed grouse, bald eagle, prairie chicken, partridge.</p> <p><u>Locations:</u> No specific hunting or trapping sites or locations within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>In the absence of specific information about current use by Bloodvein First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Bloodvein First Nation to occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Bloodvein First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife species – either directly, or indirectly, through the loss of the habitat that</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow up studies, Manitoba Transportation and Infrastructure will continue to engage with Indigenous groups to gather information on hunting and trapping in the RAA. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p>

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<p>Sources:</p> <p>Manitoba Infrastructure Indigenous Engagement Program</p> <p>IISD 2011</p>		<p>supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<ul style="list-style-type: none"> Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA.</p>	<p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Bloodvein First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities,</p>

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				<p>including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to identify construction scheduling and sequencing, as well as environmental management and monitoring plans to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Bloodvein First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u></p> <p>Bloodvein First Nation reported that muskeg (peatlands) help to naturally filter water.</p> <p>Bloodvein First Nation reported that muskeg (peatlands) plays an important role in maintaining key services such as water, air and land. Muskeg provides air to breathe, clean water and fish, and the land provides food and medicinal plants.</p> <p>Bloodvein First Nation reported that fish catches are small and the fish seem sick.</p> <p>Bloodvein First Nation reported that there are less fish is available, because of illnesses and new, different species.</p> <p>Bloodvein First Nation reported that clean water (for drinking, food for fish) used to available, but it is not anymore.</p> <p>Bloodvein First Nation reported that water is currently polluted (dirty, brown, full of algae).</p> <p><u>Issues and Concerns:</u></p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye (pickerel).</p> <p><u>Locations:</u> No specific fishing locations within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>In the absence of specific information about current use by Bloodvein First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for fishing by Bloodvein First Nation to occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be fished by Bloodvein First Nation.</p> <p>During a flood event, water flows across the land and can pick up sediments that contain chemicals such as fertilizers, pesticides and other contaminants. Under current conditions, this material flows through the Fairford River and the Dauphin River during floods. The Project will</p>	<p>Effects regarding sediments, debris and contamination/water quality are addressed in the SWMP and SMP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Sediments will be monitored, and visual inspections will be carried out as part of the SWMP and SMP and contingency mitigation measures such as silt fencing and materials to minimize bank erosion will be used, where necessary. The banks of the channel will be revegetated to reduce erosion. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. If required, at the start of operation, the water control structure gates can be gradually opened to control sediment levels, based on results of sediment monitoring. There will likely be increases in sediment concentrations at the 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish and fishing the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p>

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<p>Bloodvein First Nation is concerned about increasing waste in the community that pollutes land and water and there is also pollution from industrial activities (sawmills).</p> <p>Bloodvein First Nation is concerned that changes in muskeg (peatlands) are very important as they could influence the availability of clean water.</p> <p><u>Sources:</u> IISD 2011</p>		<p>reduce the amount of overland flooding and is therefore expected to reduce the amount of contamination entering Lake Winnipeg.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and</p>	<p>end of the channel, but they will be managed to address water quality concerns through monitoring and flow adjustments.</p> <p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> • Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. • Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. • Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. • Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. 	<p>During the construction and post-construction monitoring and follow up studies, Manitoba Transportation and Infrastructure will continue to engage with Indigenous groups to gather information on fish and fishing in the RAA. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Bloodvein First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<ul style="list-style-type: none"> • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). • To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. 	<p>of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to identify construction scheduling and sequencing, as well as environmental management and monitoring plans to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Bloodvein First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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			<p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	
Plants and Plant Harvesting				
<p><u>Existing Conditions:</u></p> <p>Bloodvein First Nation has identified plant species that include mushrooms, berries, moss.</p> <p>Bloodvein First Nation reported that wood and mosses are used to make tikonogans (cradle boards).</p> <p>Bloodvein First Nation reported using wood for heating.</p> <p>Bloodvein First Nation reported that water level changes cause changes in wild rice occurrence and there is less availability these days.</p> <p>Bloodvein First Nation reported that berries are less available due to over picking and careless picking</p>	<p><u>Species identified by Bloodvein First Nation:</u> mushrooms, berries, moss, wild rice.</p> <p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium,</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>In the absence of specific information about current use by Bloodvein First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Bloodvein First Nation to occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Bloodvein First Nation.</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction. 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plants and plant harvesting, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow up studies, Manitoba Transportation and Infrastructure will continue to engage with Indigenous groups to gather information on plants and plant harvesting in the RAA. The CRP (provided in Attachment 1 - Updated Environmental</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p><u>Issues and Concerns:</u></p> <p>Bloodvein First Nation is concerned with reduced access to culturally important gathering resources such as plant species of cultural, spiritual, and medicinal importance due to permanent structures bisecting the landscape.</p> <p>Bloodvein First Nation is concerned about disturbance to culturally important gathering resources such as plant species of cultural, spiritual, and medicinal importance through the Project construction and operation and presence of permanent structures.</p> <p>Bloodvein First Nation is concerned with cumulative impacts of development resulting in the loss of traditional lands and resources.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program IISD 2011</p>	<p>yellow avens, alum root, St. John's wort, wood lily, northern bugle-weed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes.</p> <p><u>Locations:</u> No specific plant harvesting sites or locations within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p> <p>The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p>	<ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration • As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). • Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. • The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. 	<p>Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7). As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Bloodvein First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services</p>

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			<ul style="list-style-type: none"> Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to identify construction scheduling and sequencing, as well as environmental management and monitoring plans to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Bloodvein First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p>Manitoba Infrastructure has obtained no information about Bloodvein First Nation use of travel routes in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific travel routes within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by Bloodvein First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by Bloodvein First Nation to occur within the RAA. While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. 	<p>The success of mitigation for travel routes will be monitored through the EMPs These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing</p>

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		<p>construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for</p>	<ul style="list-style-type: none"> • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. • As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed at specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered</p>	<p>Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Bloodvein First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba</p>

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		<p>crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>		<p>Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Bloodvein First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Habitation, Cultural and Spiritual Sites				
<p><u>Issues and Concerns:</u></p> <p>Bloodvein First Nation is concerned about altered cultural experience due to noise, dust and light pollution associated with Project construction and operation and the presence of permanent structures.</p> <p>Bloodvein First Nation is concerned about loss, damage, or disturbance of areas of cultural, historical, archaeological, paleontological, or architectural significance through Project related disturbance.</p> <p>Bloodvein First Nation is concerned about reduced or altered ability to transmit knowledge or cultural practices due to changes in landscape and traditional resources.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about habitation, cultural and spiritual sites and areas identified by Bloodvein First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Bloodvein First Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites. and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project habitation, cultural and spiritual sites in the RAA. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Bloodvein First Nation to date.</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
May 31, 2022

Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>		<p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Bloodvein First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>				
<p>Brokenhead Ojibway Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u> Brokenhead Ojibway Nation reported hunting and trapping species that include deer, moose, rabbits, geese, otter, martin, fisher, muskrat, lynx, fox, beaver, bobcat, porcupine, coyote, chipmunk, buffalo, duck. Brokenhead Ojibway Nation reported that there used to be muskrats, beaver, ducks and all types on wildlife in the river, but now you don't see it because the river is contaminated. Brokenhead Ojibway Nation reported that there used to be good muskrat trapping on Patricia Beach. Brokenhead Ojibway Nation reported that there is no more trapping at Folster Lake either and that the lake is oily. <u>Issues and Concerns:</u> Brokenhead Ojibway Nation is concerned with reduced access to hunting and trapping areas due to Project construction and operation and presence of permanent infrastructure that will bisect the land. Brokenhead Ojibway Nation is concerned with disturbance of wildlife and wildlife habitat due to Project construction and operation and presence of permanent infrastructure that will bisect the land. Brokenhead Ojibway Nation is concerned with altered movement, use, or avoidance by wildlife of the Project and surrounding areas due to Project construction and operation. Brokenhead Ojibway Nation is concerned with increased wildlife mortality due to potential vehicle-wildlife collisions from increased vehicle traffic associated with Project construction and operation.</p>	<p><u>Species identified by Brokenhead Ojibway Nation:</u> deer, moose, rabbits, geese, otter, marten, fisher, muskrat, lynx, fox, beaver, bobcat, porcupine, coyote, chipmunk, buffalo, duck. <u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> elk, black bear, wolf, wolverine, short-tailed weasel, long-tailed weasel, mink, squirrel, mallard, ruffed grouse, sharp-tailed grouse, bald eagle, prairie chicken, partridge. <u>Locations:</u> Portions of Lake Winnipeg are in the PDA. Patricia Beach, Folster Lake and the Winnipeg River are outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use. Manitoba Infrastructure acknowledges that the information about hunting and trapping by Brokenhead Ojibway Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Brokenhead Ojibway Nation occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Brokenhead Ojibway Nation. While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively. The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA. Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project. For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component. During the construction and post-construction monitoring and follow up studies, Manitoba Transportation and Infrastructure will continue to engage with Indigenous groups to gather information on hunting and trapping in the RAA. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups. Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7). As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized</p>

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<p>Brokenhead Ojibway Nation is concerned with cumulative impacts of development resulting in the loss of traditional lands and resources.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program BRFN, BON and HWFN 2019</p>		<p>wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>Project, so that areas and time periods of activity can be avoided.</p> <ul style="list-style-type: none"> As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Brokenhead Ojibway Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force</p>

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				<p>requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Brokenhead Ojibway Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u></p> <p>Brokenhead Ojibway Nation reported fishing sturgeon, sunfish, pickerel (walleye) and catfish.</p> <p>Brokenhead Ojibway Nation reported that fishing areas include the Winnipeg River, Jessica Lake, Lone Island Lake, Betula Lake, and Sturgeon Point.</p> <p>Brokenhead Ojibway Nation reported fishing for sturgeon at Lac du Bonnet.</p> <p>Brokenhead Ojibway Nation reported fish are caught that have bumps on their bodies, scabs and boils on their gills, and tumors. Their meat is the wrong colour and doesn't taste right. Brokenhead Ojibway Nation reported that invasive species are coming in that don't belong, such as zebra mussels; they impact the health of Lake Winnipeg.</p> <p>Brokenhead Ojibway Nation reported that fishermen are having a hard time catching their limits.</p> <p>Brokenhead Ojibway Nation reported that there many of the lakes on the reserve have dried up.</p> <p>Brokenhead Ojibway Nation reported that over time, government restrictions have changed the way they are able to fish. Brokenhead Ojibway Nation stated that they are no longer</p>	<p><u>Species identified by Brokenhead Ojibway Nation:</u> sturgeon, sunfish, catfish, pickerel</p> <p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> white sucker, whitefish, common carp, northern pike, burbot, trout, perch, sauger.</p> <p><u>Locations:</u> Portions of Lake Winnipeg and Lake Manitoba are in the PDA. Sturgeon Point is in the PDA. Lone Island Lake, Betula Lake, Jessica Lake, Lac du Bonnet and the Winnipeg River are outside of the RAA. The Brokenhead River is outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Brokenhead Ojibway Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Brokenhead Ojibway Nation occur throughout the RAA and that species commonly understood to be caught by Indigenous peoples that occur within the RAA may be fished by Brokenhead Ojibway Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality,</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p>

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<p>able to catch sturgeon, a fish that was so important to our ancestors.</p> <p>Brokenhead Ojibway Nation reported that, due to altered currents from dams on the system and other changes to the natural state of waterbodies, sediments have accumulated in the south basin of Lake Winnipeg and into the Brokenhead River, altering the natural suspended sediment loads and causing shallower water level conditions in the region. They reported this to be an issue at the mouth of the Brokenhead River where sediments are causing issues for fish movement. Large sand bars have been noted by community members.</p> <p>Brokenhead Ojibway Nation reported that Lake Manitoba and Lake Winnipeg are highly productive lakes due to their shallow depths relative to their large surface areas, warm summer water temperatures, and well mixed water columns.</p> <p>Brokenhead Ojibway Nation reported that eutrophication, caused primarily by agricultural run-off has degraded the water quality of both Lakes Manitoba and Winnipeg and has resulted in increased cyanobacteria and green algae.</p> <p>Brokenhead Ojibway Nation reported witnessing and experiencing the effects of the agricultural industry on the water quality and fish habitat in Lake Winnipeg.</p> <p>Brokenhead Ojibway Nation reported that the west and east of areas of Lake Manitoba are two completely different ecosystems.</p> <p>Brokenhead Ojibway Nation reported that the Brokenhead River has become shallower in recent years causing issues with migratory access for various fish species.</p> <p><u>Issues and Concerns:</u></p> <p>Brokenhead Ojibway Nation expressed concern that local hydrology will be affected and this could affect water quality. For example, fluctuations in water levels, especially in wetland areas, increasing production of methylmercury and LMOC channel construction causing nutrient loading from manure-contaminated soils.</p> <p>Brokenhead Ojibway Nation expressed concern with respect to potential effects on drinking water quality, especially near the LMOC where soils have been affected by agriculture, including the addition of manures and fertilizers to the soils.</p> <p>Brokenhead Ojibway Nation expressed concern that spikes in suspended and deposited sediment would occur during high flood events when the channels are moving high volumes of water.</p> <p>Brokenhead Ojibway Nation expressed concern of fish die-offs and poor water quality throughout the southern basin of Lake Winnipeg and Brokenhead River.</p>		<p>changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43).</p> <ul style="list-style-type: none"> • Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. • Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged in the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted "in the dry" and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba 	<p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Brokenhead Ojibway Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Brokenhead Ojibway Nation expressed concern that the construction activities for the outlet channels will contribute to the release of nutrient rich soils into the system, and that additional sediment loads will further eutrophication effects in Brokenhead Ojibway Nation's traditional territory, as well as into the larger Lake Winnipeg area.</p> <p>Brokenhead Ojibway Nation expressed concern that there has not been enough research done to consider how the merging of these two ecosystems on Lake Manitoba (east and west) will affect the overall aquatic and terrestrial ecosystems.</p> <p>Brokenhead Ojibway Nation expressed concern with how the changing morphology and currents in the river from dams and outlet channels will alter fish spawning.</p> <p>Brokenhead Ojibway Nation expressed concern that the proposed channels will potentially further impact the accessibility of fish into Brokenhead River, as well as attract fish away from entering the river to spawn.</p> <p>Brokenhead Ojibway Nation expressed concern that sediments could be deposited into the south basin as a result of altered flow conditions, causing continuous impacts on the local aquatic environment.</p> <p>Brokenhead Ojibway Nation expressed concern about the opportunity this Project presents for the introduction and movement of invasive species throughout the water system.</p> <p><u>Recommendations made by Brokenhead Ojibway Nation:</u></p> <ul style="list-style-type: none"> Brokenhead Ojibway Nation recommended that Manitoba Infrastructure complete a source water protection plan in the RAA, including mapping the well head protection areas based on distance/time of travel. Brokenhead Ojibway Nation recommended that Manitoba Infrastructure implement a fish health and invasive species monitoring program as part of the Project. Brokenhead Ojibway Nation recommended that their community members be included in aquatic monitoring activities within the south basin of Lake Winnipeg. Brokenhead Ojibway Nation recommended that they be included in the development and implementation of the monitoring activities and other follow-up programs associated with the Project. Brokenhead Ojibway Nation recommended that Manitoba Infrastructure establish an Indigenous environmental and cultural monitoring advisory committee whose mandate is to formally provide oversight and guidance into how traditional knowledge and traditional land and resource use information is implemented into the Project's monitoring and follow up programs. 			<p>Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat.</p> <ul style="list-style-type: none"> Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to 	<p>communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Brokenhead Ojibway Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<ul style="list-style-type: none"> Brokenhead Ojibway Nation recommended that a clear, detailed plan be shared with Indigenous groups as to how Manitoba Infrastructure will provide capacity and an inclusive process for Indigenous groups to advise on cultural and environmental protection measures needed; and ensure that these measures are applied in a transparent way. Brokenhead Ojibway Nation recommends that Manitoba Infrastructure provide further information regarding how changes in water quality will be monitored during all phases of the Project, and how unexpected changes in water quality will be managed in terms of assessing and minimizing risks to both human health and wildlife. In addition, Manitoba Infrastructure must consider the land use and activity patterns of Indigenous group members when assessing potential health impacts and risks. <p><u>Sources:</u> BRFN, BON and HWFN 2019 Shared Value Solutions 2020.</p>			<p>realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered.</p> <ul style="list-style-type: none"> Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	
Plants and Plant Harvesting				
<p><u>Existing Conditions:</u></p> <p>Brokenhead Ojibway Nation reported harvesting plant species that include wild rice, chokecherries and wild plums, <i>weekay</i> (<i>weke</i>), Seneca root, cedar, Labrador tea, willow, rosehips, poplar, potato, raspberries, blueberries.</p> <p>Brokenhead Ojibway Nation reported that berries and wild rice are important foods.</p> <p>Brokenhead Ojibway Nation reported that wild rice and <i>weekay</i> is harvested from the shores of Lake Winnipeg, Hollow Water, and the Brokenhead River</p> <p>Brokenhead Ojibway Nation reported that wild rice is harvested in the Whiteshell but also in various small lakes and along the shorelines of rivers throughout Brokenhead Ojibway Nation traditional territory.</p> <p>Brokenhead Ojibway Nation reported that medicines are harvested in the Whiteshell; along the Winnipeg River, the Brokenhead Boardwalk.</p> <p>Brokenhead Ojibway Nation reported that poplar, willow, Labrador tea, potato and rosehips can be used for medicine.</p> <p><u>Issues and Concerns:</u></p> <p>Brokenhead Ojibway Nation expressed concern that increasing use of chemicals, regulation of water levels, and changes to water quality also have major impacts on wild rice, berries and other harvested plants. Brokenhead Ojibway Nation is</p>	<p><u>Species identified by Brokenhead Ojibway Nation:</u> wild rice, chokecherries, wild plums, <i>weekay</i> (<i>weke</i>), Seneca root, cedar, Labrador tea, willow, rosehips, poplar, potato, raspberries, blueberries.</p> <p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugle-weed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, rattlesnake root, self-heal, pin cherry, sand cherry, bracken (fiddlehead), wintergreen, bur oak, wild black</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>During a flood event, water flows across the land and can pick up sediments that contain chemicals such as fertilizers, pesticides and other contaminants. Under current conditions, this material flows through the Fairford River and the Dauphin River during floods. The Project will reduce the amount of overland flooding and is therefore expected to reduce the amount of contamination entering Lake Winnipeg.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Brokenhead Ojibway Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Brokenhead Ojibway Nation occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Brokenhead Ojibway Nation.</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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<p>concerned with reduced access to culturally important gathering resources such as plant species of cultural, spiritual, and medicinal importance due to permanent structures bisecting the landscape.</p> <p>Brokenhead Ojibway Nation is concerned about disturbance to culturally important gathering resources such as plant species of cultural, spiritual, and medicinal importance through the Project construction and operation and presence of permanent structures.</p> <p>Brokenhead Ojibway Nation is concerned with cumulative impacts of development resulting in the loss of traditional lands and resources.</p> <p><u>Sources:</u> Manitoba Infrastructure Indigenous Engagement Program BRFN, BON and HWFN 2019</p>	<p>currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, red clover, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes.</p> <p><u>Locations:</u> Portions of Lake Winnipeg are in the PDA. Whiteshell Provincial Park, Winnipeg River and the Brokenhead River are located outside of the RAA.</p>	<p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>erected limiting access to authorized personnel.</p> <ul style="list-style-type: none"> The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). 	<p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). and. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Brokenhead Ojibway Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities,</p>

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			<ul style="list-style-type: none"> The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Brokenhead Ojibway Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate</p>
Travel Routes				
<p><u>Existing Conditions:</u></p> <p>Brokenhead Ojibway Nation reported that rivers were particularly important to their communities, stating “we took these waterways up from the south when we first arrived in this land. The rivers were our highways. The important sites where we camped, harvested, gave birth, held ceremonies, and buried our loved ones, were all located along the waterways.”</p> <p>Brokenhead Ojibway Nation noted that they find artifacts all through the along the shores of rivers that show how their ancestors used the waterways for travel routes.</p> <p><u>Sources:</u></p> <p>BRFN, BON and HWFN 2019</p>	<p><u>Locations:</u> No specific travel routes used by Brokenhead Ojibway Nation within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by Brokenhead Ojibway Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by Brokenhead Ojibway Nation to occur within the RAA</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. 	<p>The success of mitigation for travel routes will be monitored through the EMPs These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other</p>

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		<p>to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting</p>	<ul style="list-style-type: none"> • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. • As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed at specific locations. Resource users will be able to continue to travel in the area but the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Brokenhead Ojibway Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p>

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		<p>upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>		<p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Brokenhead Ojibway Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
Habitation, Cultural and Spiritual Sites				
<p><u>Existing Conditions:</u> Brokenhead Ojibway Nation reported that there are important sites where Brokenhead Ojibway have camped, harvested, gave birth, held ceremonies, and buried loved ones, are all located along the waterways.</p> <p><u>Issues and Concerns:</u> Brokenhead Ojibway Nation is concerned about altered cultural experience due to noise, dust and light pollution associated with Project construction and operation and the presence of permanent structures. Brokenhead Ojibway Nation is concerned about loss, damage, or disturbance of areas of cultural, historical, archaeological, paleontological, or architectural significance through Project related disturbance. Brokenhead Ojibway Nation is concerned about reduced or altered ability to transmit knowledge or cultural practices due to changes in landscape and traditional resources.</p> <p><u>Sources:</u> Manitoba Infrastructure Indigenous Engagement Program BRFN, BON and HWFN 2019</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about location of habitation, cultural and spiritual sites and areas identified by Brokenhead Ojibway Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Brokenhead Ojibway Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> The HRIA identified existing or potential sites and prescribes site specific mitigation. The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. The EPP identifies specific existing and potential sites and specific measures to protect them. The AMP controls access around the Project construction area. Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Brokenhead Ojibway Nation to date.</p>

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		<p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>		<p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Brokenhead Ojibway Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>				
<p>Dauphin River First Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u> Dauphin River First Nation reported that moose and white-tailed deer are important species for subsistence. Dauphin River First Nation hunt and trap along the shoreline of Lake Winnipeg and along Buffalo Creek, with moose and deer habitat found in both areas. Dauphin River First Nation trap furbearers such as marten, wolverine, coyotes, wolves and fisher along provincial road (PR) 513 and beaver and muskrat along the proposed Lake St. Martin channel route. Dauphin River First Nation reported that the Project is in their traditional hunting grounds. Dauphin River First Nation reported that since the flooding in 2011, there has been a decline in the presence of moose, deer, beaver and muskrats. Dauphin River First Nation that geese and ducks are valued for meat and eggs. Dauphin River First Nation reported that yellow rail, least bittern, snapping turtle, eastern whip-poor-will, bat, and red-headed woodpecker are significant species. Dauphin River First Nation reported that animals who rely on smaller animals in the Road Project area² are beginning to behave differently than they did before the clearing. Predators, like timber wolves, are moving into our traditional territories and killing off deer and eating supplies because they cannot find food of their own.</p>	<p><u>Species Identified by Dauphin River First Nation:</u> moose, white-tailed deer, marten, fisher, muskrat, beaver, caribou, wolf, coyote, red fox, lynx, squirrel, rabbit, short-tailed weasel, long-tailed weasel, mink, otter, Canada goose, geese, ducks, ruffed grouse, sharp-tailed grouse, partridge, grouse, prairie chicken, yellow rail, least bittern, snapping turtle, eastern whip-poor-will, red-headed woodpecker, bat. <u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> mule deer, elk, black bear, wolverine, mallard, bald eagle. <u>Locations:</u> Portions of Lake St. Martin is within the PDA. Buffalo Creek and a portion of the shoreline of Lake Winnipeg are within the PDA. The Narrows are within the PDA. Public Road (PR) 513 intersects the LAA. Trapping areas along the proposed Lake St. Martin channel route are within the PDA. The Dauphin River is within the LAA. Mantag (Mantago) Creek is within the RAA. Kinwow Bay and Lynx Bay are outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use. Manitoba Infrastructure acknowledges that the information about hunting and trapping by Dauphin River First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Dauphin River First Nation occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Dauphin River First Nation. While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively. The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Access to the Project ROW and associated access routes will be managed through the AMP. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). Safe passage will be provided at identified crossing locations. 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project. For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component. During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p>

² Dauphin River First Nation did not specify which Road Project.

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<p>Dauphin River First Nation reported that the Road Project and ROW clearings have already had a noticeable effect on trapping. The animals rely on the trees as shelter and these clearings have destroyed how the animals move around. Animals tend to travel in a circle and if that circle is disrupted, the animals will travel elsewhere.</p> <p>Dauphin River First Nation reported that there has been a general decline in hunting due to impacts from industrial development, agricultural development, introduced species, hunting restrictions, land privatization, clearing and contamination of water and food sources.</p> <p><u>Issues and Concerns:</u></p> <p>Dauphin River First Nation expressed concern regarding the Project's ongoing flooding in the region from control structures and increases in water levels on Lake Winnipeg; Dauphin River First Nation is concerned that the control structures may cause the erosion of lake shoreline that diminishes the value of hunting.</p> <p>Dauphin River First Nation expressed concern that local flooding may interfere with local hunting and trapping.</p> <p>Dauphin River First Nation expressed concern that access road construction has the potential to disturb wildlife.</p> <p>Dauphin River First Nation expressed concerns about adverse impacts on wildlife from contaminated water in Lake Winnipeg.</p> <p>Dauphin River First Nation is concerned about the 1 km LAA, as it does not capture the zone of influence for species of importance to Indigenous groups, such as moose.</p> <p>Dauphin River First Nation is concerned about the lack of the required Species at Risk (SAR) presence/absence surveys.</p> <p>Dauphin River First Nation is concerned about whether offsetting and compensation measures will be applied in relation to impacts to all wildlife, including SAR.</p> <p>Dauphin River First Nation is concerned about adverse effects to migratory birds impacted by the Project's reduction of lake water levels in Lake St. Martin which will result in changes to flow volumes and velocities through the Narrows and Dauphin River which support local movement and seasonal habitat of migratory birds as well as changes to shoreline habitat and fish and fish habitat that supports the seasonal habitat of migratory birds.</p> <p>Dauphin River First Nation is concerned about the lack of information about critical lifecycle periods for yellow rail, least bittern, snapping turtle, eastern whip-poor-will, and red-headed woodpecker.</p>		<p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). • Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. • The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. • Clearing will not occur between April 1 and August 31 to avoid disturbance to nesting birds and other wildlife (Chapter 8, Section 8.3). • Terrestrial buffers, as identified by the Manitoba Conservation Data Centre's Recommended Development Setback Distances from Birds and/or MSDs Forest Management Guidelines for Terrestrial Buffers will be adhered to for all applicable sites (Chapter 8, Section 8.3; PERS, Section 2.9.1) • If construction is scheduled to occur within the nesting period for owls and raptors (March 1 to August 31), a nest survey may be conducted by a qualified wildlife biologist if warranted. In the event an active nest is found, it will be subject to site-specific mitigation measures 	<p>A sharp-tailed grouse lek survey will be completed in 2022 identify any leks (i.e., traditional mating sites) that have the potential to interact with the Project.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Dauphin River First Nation to discuss the Environmental Management Plans. A meeting was held with , Dauphin River First Nation on the following date: September 22, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Dauphin River First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba</p>

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<p>Dauphin River First Nation is concerned about how Manitoba Transportation and Infrastructure intends to prevent or minimize the release of harmful substances (such as road salt) in waters frequented by migratory birds.</p> <p>Dauphin River First Nation is concerned about reduced habitat use and survival of migratory birds resulting from the release of harmful substances.</p> <p>Dauphin River First Nation expressed concern about the likelihood of salvaged/ relocated or retained snags falling over, impacting the effectiveness of red-headed woodpecker mitigation measures.</p> <p>Dauphin River First Nation expressed concerns about the mortality of culturally important large mammal and furbearers that den or burrow and are vulnerable to Project vegetation clearing and ground disturbance.</p> <p>Dauphin River First Nation expressed concern about the timing of the Project changes and seasonality of habitat use by migratory birds and SAR.</p> <p>Dauphin River First Nation is concerned about the quality and functionality of wetlands impacted by the Project.</p> <p>Dauphin River First Nation is concerned that the culturally important species have not been adequately identified.</p> <p>Dauphin River First Nation is concerned about what impacts of the Project will have on Dauphin River First Nation's ability to hunt specific species, e.g., moose as well as the Project consideration of effects on preferred species for trapping such as muskrats.</p> <p>Dauphin River First Nation is concerned about whether and how Indigenous Knowledge was incorporated into understanding the impact pathways related to wildlife species or habitat.</p> <p>Dauphin River First Nation is concerned that species uniquely susceptible to morality effects have not been identified by the Proponent.</p> <p>Dauphin River First Nation is concerned about the use of gates meant to reduce hunting pressure impacts Indigenous uses and access.</p> <p>Dauphin River First Nation is concerned about the impact of Project activities on beavers.</p> <p>Dauphin River First Nation is concerned about the direct and indirect impacts of the Project on wildlife from habitat fragmentation.</p>			<p>(i.e., clearly marked protective buffer around the nest and/or non-intrusive monitoring) (Chapter 8, Section 8.3).</p> <p>The Red-headed Woodpecker and Eastern Whip-poor-will Habitat Mitigation Plans are not intended to be offset or compensation plans, but instead are species-specific habitat enhancement plans. The Red-headed Woodpecker Habitat Mitigation Plan includes measures to enhance the edges of the LMOC with shrubs and snags that will benefit not only red-headed woodpecker, but also other wildlife including species of cultural importance such as grouse, snowshoe hare, and red fox. Along the LSMOC, the Eastern Whip-poor-will Habitat Mitigation Plan describes how shrub and tree cover plantings will be added to the edges of the ROW where upland habitat (i.e., forest) exists. These plantings will provide habitat for eastern whip-poor-will and other animals including birds and furbearers.</p> <p>Manitoba Transportation and Infrastructure will comply with the Migratory Birds Convention Act, 1994 and follow prohibitions, including, but not limited to, avoiding the deposition of harmful substances in wetlands frequented by migratory birds (see IAAC-50).</p> <p>Additionally, BMPs described in the PERs and CEMP will be applied to all Project components and will include plans for hazardous material transportation and management, emergency response (i.e., spills), dust control, working in or near water, petroleum storage and equipment fueling and servicing, and erosion and sedimentation control. The PERs and the draft Dust Control Plan (see Attachment 1 – Updated Environmental Management Plans) stipulate dust control application requirements and the PERs and Manitoba Environmental Accident Reporting Regulation stipulate reporting requirements and response measures for hydrocarbons and other products (e.g., see Project Environmental Requirement [PER] 2.5.2; Attachment 1 – Updated Environmental Management Plans). The road will be operated and maintained in a manner consistent with Manitoba Transportation and Infrastructure's practice for the current PR 239 and other public roads throughout the Province of Manitoba. Based on the mitigation measures and BMPs described above, and the limited interaction of the road realignment with wetland habitat, potential effects can be avoided or reduced.</p>	<p>Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Dauphin River First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>Dauphin River First Nation is concerned about wildlife being willing or able to cross the channel as well as the residual effects and significance of the effects on all culturally important species movement.</p> <p>Dauphin River First Nation is concerned about the amount of indirect habitat loss and alteration due to the Project.</p> <p>Dauphin River First Nation is concerned about the effects of changes to habitat on non-migratory birds, particularly species of cultural importance.</p> <p>Dauphin River First Nation is concerned that decreased water levels will increase access for wolves to islands with culturally important species and increase wolf predation.</p> <p>Dauphin River First Nation is concerned that the Project Transmission line will impact nocturnal migrants and bird with awkward flight characteristics, known to be vulnerable to collisions with transmission lines.</p> <p>Dauphin River First Nation is concerned about impacts to SAR bats during vegetation removals.</p> <p>Dauphin River First Nation is concerned about Project effects on migratory birds and wildlife related to changes to lake levels on Lake St. Martin, changes to flow rates and volumes at the Narrows and through the Dauphin River.</p> <p><u>Recommendation made by Dauphin River First Nation:</u></p> <ul style="list-style-type: none"> Dauphin River First Nation recommends that Manitoba Infrastructure adopt a LAA that is more conservative than 1 km. <p><u>Sources:</u> Firelight 2022 Indigenous Engagement Program for the Project Indigenous Engagement Program – Appendix 5A.6 IRTC 2022a IRTC 2022b IRTC 2022c IRTC 2022d Golder Associates 2018 Olson et al. 2020a</p>			<p>The Red-headed Woodpecker Habitat Mitigation Plan contains a nest structure survey that will be used to assess the effectiveness of these mitigation measures by monitoring the structural integrity of salvaged decadent trees and artificial nest boxes.</p> <p>The distribution line is expected to be constructed in accordance with Manitoba Hydro's standard industry specifications for distribution lines (see IAAC-47).</p> <p>Part a) of the formal response to IAAC-122 explains how TLRU information was incorporated into the environmental assessment process for the Project.</p> <p>A fulsome list of culturally important wildlife species identified by Dauphin River First Nation through the Indigenous consultation and engagement program or a review of publicly available literature is available in IAAC-87 (Table 87-1).</p> <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA</p>	

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Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u></p> <p>Dauphin River First Nation reported subsistence and recreational fishing occur at Lake St. Martin, Dauphin River, Mantagao River, and Sturgeon Bay year-round.</p> <p>Dauphin River First Nation reported fishing sites for pickerel, jackfish, whitefish, sunfish, sauger, bass, catfish, carp, mariah, perch, sucker, and tullibee; spawning sites for multiple fish species including pickerel, sauger, jackfish, sturgeon, sucker, and whitefish; as well as, catch and release areas for sunfish, sucker, and bass.</p> <p>Dauphin River First Nation reported the use of fish processing sites; and water routes where participants travelled by boats and canoes to set nets and catch multiple species of fish.</p> <p>Dauphin River First Nation reported that whitefish from Lake Winnipeg go down Dauphin River to Lake St. Martin.</p> <p>Dauphin River First Nation fish for walleye (pickerel) along Lake Winnipeg and have identified a spawning area at the south end of that lake.</p> <p>Dauphin River First Nation reported that fishing occurs for jackfish, pickerel and whitefish in Lake St. Martin including the junction in Fairford.</p> <p>Dauphin Rover First Nation reported fishing at Reindeer Island.</p> <p>Dauphin River First Nation reported that the EOC affected fish migration and killed fish.</p> <p>Dauphin River First Nation has noted that surface waters have been altered from their natural courses leading to an increase in the incidence of flooding.</p> <p>Dauphin River First Nation indicated that degradation in surface water quality has impaired historic surface drinking water sources and may also be affecting fish health.</p> <p>Dauphin River First Nation reported finding fish with strange patterns, blisters, sores, discolorations and deformities.</p> <p>Dauphin River First Nation reported increased debris in spawning areas.</p> <p>Dauphin River First Nation reported that there used to be lots of pickerel around the mouth of Mantago (Mantag) Creek, but the population has decreased because the water is too dirty.</p> <p>Dauphin River First Nation commented on the adverse impacts to waterfront lands, shoreline habitat, reserve lands, fishing and wildlife that have been affected by the actions of Manitoba's flood infrastructure when diverting flood waters away from Winnipeg. Dauphin River First Nation has reported experiencing tremendous ecological engineering to Lake St.</p>	<p><u>Species Identified by Dauphin River First Nation:</u> northern pike (jackfish), walleye, lake whitefish, pickerel, sunfish, sturgeon, sauger, bass, catfish, carp, mariah, perch</p> <p><u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> white sucker, whitefish, burbot, trout.</p> <p><u>Locations:</u> Portions of Lake St. Martin and Lake Winnipeg are within the PDA. Buffalo Creek is within the PDA. Fairford Junction is within the LAA. The Dauphin River is within the LAA. Portions of Sturgeon Bay are within the PDA. Mantagao River is within the RAA. Wilson Point, Kinwow Bay Reindeer Island and Lynx Bay are outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Dauphin River First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Dauphin River First Nation occur throughout the RAA and that species commonly understood to be caught by Indigenous peoples that occur within the RAA may be fished by Dauphin River First Nation.</p> <p>During a flood event, water flows across the land and can pick up sediments that contain chemicals such as fertilizers, pesticides and other contaminants. Under current conditions, this material flows through the Fairford River and the Dauphin River during floods. The Project will reduce the amount of overland flooding and is therefore expected to reduce the amount of contamination entering Lake Winnipeg.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>No sediments and debris are expected to enter the Dauphin River from the Project. Unlike the EOC, constructed under emergency conditions to address flooding, the Project construction process will allow for the management and disposal of cleared vegetation.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects regarding sediments, debris and contamination/water quality are addressed in the SWMP, SMP and Debris Management Plan. Some of the key specific mitigation measures from these plans are listed below:</p>	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish and fishing the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in</p>

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<p>Martin and the surrounding lands in the past 50 years. During this time the area has acted as an "overflow" water reservoir for passing flood waters from the Assiniboine River system into Lake Winnipeg.</p> <p>Dauphin River First Nation reported that during the 2011 and 2014 floods, fishers reported that fish has moved off traditional habitat and catch per unit effort was much greater. Fishers also reported that spawning beds were mantled with debris and sediment, which reduced the spawning success and resulted in decreased whitefish and pickerel populations, which are still experiencing declines. Fishers also reported disruptions to spawning areas as far as Reindeer Island</p> <p><u>Issues and Concerns:</u></p> <p>Dauphin River First Nation expressed concerns for fish spawning areas.</p> <p>Dauphin River First Nation have expressed concern over sediments and debris in the Dauphin River.</p> <p>Dauphin River First Nation have noted that the water on Lake Winnipeg has a sheen on it that looked like a rainbow.</p> <p>Dauphin River First Nation are concerned with flow and floods in the south basin of Lake St. Martin.</p> <p>Dauphin River First Nation are concerned that the channels will introduce contaminants.</p> <p>Dauphin River First Nation are concern about the potential spread of zebra mussels.</p> <p>Dauphin River First Nation is concerned that the Wilson Point Outlet will affect the sturgeon spawning area and commercial fishing area, reporting that this season's spawn was observed to be piled up on the shore of Wilson Point.</p> <p>Dauphin River First Nation is concerned that the fish in the channels will be stranded.</p> <p>Dauphin River First Nation expressed concerns regarding groundwater and surface water.</p> <p>Dauphin River First Nation expressed concerns regarding drinking water quality.</p> <p>Dauphin River First Nation reported water quality concerns with the water from Buffalo Creek.</p> <p>Dauphin River First Nation raised concerns regarding changes in regional flows which will affect ongoing flooding and shoreline erosion and degrading water quality and algal issues.</p> <p>Dauphin River First Nation raised concerns regarding the Projects on going flooding in the region from control structures and increases in water levels on Lake Winnipeg that may cause</p>		<p>both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p> <p>Although the overall level of participation in commercial fisheries by Indigenous groups engaged on the Project is not known, it is recognized that commercial fishing on Lake Manitoba is a major source of income for members of some Indigenous groups. The sustainability of the fishery is linked to fish habitat and fish health.</p>	<ul style="list-style-type: none"> Any storage and use of chemicals is strictly regulated and application of chemicals requires training and a permit. Sediments will be monitored, and visual inspections will be carried out as part of the SWMP and SMP and contingency mitigation measures such as silt fencing and materials to minimize bank erosion will be used, where necessary. The banks of the channel will be revegetated to reduce erosion. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. If required, at the start of operation, the water control structure gates can be gradually opened to control sediment levels, based on results of sediment monitoring. There will likely be increases in sediment concentrations at the end of the channel, but they will be managed to address water quality concerns through monitoring and flow adjustments. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. 	<p>response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Dauphin River First Nation to discuss the Environmental Management Plans. A meeting was held with , Dauphin River First Nation on the following date: September 22, 2021. In addition, due to engagement limitations due to COVID-19, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Dauphin River First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of</p>

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<p>the erosion of lake shoreline that diminishes the value of fishing.</p> <p>Dauphin River First Nation documented concerns regarding fluctuating water levels, water quality degradation, the mobilization of pollutants and algal blooms in the RAA which limit the safe use of surface water.</p> <p>Dauphin River First Nation identified concerns regarding runoff from farm fields causing impacts to water quality in the RAA.</p> <p>Dauphin River First Nation expressed concern that aquatic ecosystem health in local waterbodies and waterways would be altered by the Project.</p> <p>Dauphin River First Nation expressed concern regarding potential effects on commercial fisheries.</p> <p>Dauphin River First Nation commented on reluctance to drink from various natural water sources, including Lake Winnipeg, due to contamination.</p> <p>Dauphin River First Nation expressed concerns about the potential for changes in water flows to affect fish spawning areas and medicinal plants.</p> <p>Dauphin River First Nation is concerned that the Project has the potential to further alienate members from valued fish resources by reducing fish populations, disrupting fish habitats, altering fish behaviours and damaging equipment.</p> <p>Dauphin River First Nation is concerned that the Project construction and operation timing will impact reproductive stages of fish, particularly causing increased total suspended solids (TSS).</p> <p>Dauphin River First Nation is concerned about the conclusion that residual effects to fish and fish habitat in Sturgeon Bay are not expected to occur despite the inadequacy of the modelling and baselines.</p> <p>Dauphin River First Nation is concerned that changing the water drainage of the Birch Creek watershed and Buffalo Creek drainage base represents a significant adverse impact on how Dauphin River First Nation has used these lands and how it plans to use these lands.</p> <p>Dauphin River First Nation is concerned about the omission of any parameters specific to Indigenous interests related to surface water and ground water.</p> <p>Dauphin River First Nation is concerned that selected location of water monitoring and sampling do not mention areas of high land use or of high importance to Indigenous users in the PDA or LAA as well as the lack of discussion of traditional knowledge and how it informs the monitoring programs.</p>			<ul style="list-style-type: none"> All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. The majority of Project channel excavation and construction will be conducted “in the dry” and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. 	<p>training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Dauphin River First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>Dauphin River First Nation is concerned about the effects to traditional uses that could result from local effects caused by dewatering.</p> <p>Dauphin River First Nation is concerned about Project impacts causing changes in water quality, water quantity/flow patterns, fish habitat, and fish community composition, such as declines in whitefish and increases in introduced species, and how these changes will adversely affect fish availability and distribution and how these will negatively impact subsistence and commercial fishing practices.</p> <p>Dauphin River First Nation is concerned about an underestimation by the Project on the impacts to Indigenous fishing during Project operations and the potential adverse effects on Indigenous socio-economic conditions, culture, and the current use of lands and resources for traditional purposes.</p> <p>Dauphin River First Nation is concerned that the Project will contribute to the spread, colonization, and introduction of AIS to waterbodies in the LAA, Lake St. Martin, Birch Creek, and the Buffalo Creek Watershed.</p> <p>Dauphin River First Nation is concerned about the potential interactions between AIS and Project infrastructure which may support colonization by zebra mussels and Prussian carp.</p> <p>Dauphin River First Nation is concerned about localized changes in the distribution of sediments within traditional fishing grounds.</p> <p>Dauphin River First Nation is concerned about the nature and scale of the impact to fish and fisheries and how the overall impacts of the Project will affect Indigenous values and interests.</p> <p>Dauphin River First Nation is concerned about the lack of recognition of fisheries as critically important to TLRU activities.</p> <p>Dauphin River First Nation is concerned about how changes to local drainage and water flow will affect water quality for supporting a viable rights-based and commercial fishery, as well as supporting other social and cultural uses of Lake St. Martin and Sturgeon Bay in Lake Winnipeg.</p> <p>Dauphin River First Nation is concerned that the cumulative effects on the fishery in Lake St. Martin caused by major man-made flooding events in 2011 and 2014 are being overlooked.</p> <p>Dauphin River First Nation is concerned that changes to the dynamics of currents, erosion, bed sediments, and turbidity in the north basin of Lake St. Martin will impact the health of the fish and fish habitat in Lake St. Martin.</p> <p>Dauphin River First Nation is concerned that the Project will cause extensive sediment plumes and will further impact the</p>			<p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p>Measures to avoid or reduce effects to commercial fishing are identified in the CEMP and include:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will engage with commercial fish harvesters, anglers, local resource users, and MSD Regional Officials to address potential conflict, disturbance, or access restrictions to fishing/harvesting areas in the PDA and LAA, and availability of fish resources. <p>Effects to surface water quality monitoring are addressed primarily in IAAC-80.</p> <p>Effects to fishing are addressed in IAAC-103 and IAAC -105.</p> <p>Surface water quality and nutrient loading are discussed in IAAC-13, IAAC-14, IAAC-65, IAAC-84 and IAAC-107</p> <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 6), after mitigation there are no adverse effects predicted to overall surface water quality in the region and the composition and volume of water being transported from Lake Manitoba to Sturgeon Bay is not expected to be substantially altered by the Project construction or operation. As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of</p>	

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<p>fishery in Sturgeon Bay, already impacted by the 2011 and 2014 floods</p> <p>Dauphin River First Nation is concerned that sediment plume and distribution of sediment caused by the Project will impact the fish populations in Lake St. Martin and related First Nation fish harvesting rights.</p> <p>Dauphin River First Nation is concerned about nutrient loading and additions into affected water bodies, which is directly relevant to the ecological balance in lakes and the health of fish populations in Lake St. Martin and Lake Winnipeg.</p> <p>Dauphin River First Nation is concerned that whitefish emerging from the spawning grounds in Lake St. Martin will be carried into the LSMOC and directly into Lake Winnipeg rather than being able to use their traditional migratory route through Dauphin River to the lake because of the change in flow path.</p> <p>Dauphin River First Nation is concerned that larvae that have not emerged from the substrates in the narrows when flood flow occurred will be subject to scouring because of the predicted increase in flow velocities through the narrows during flooding and channel operations.</p> <p>Dauphin River First Nation is concerned about Project impacts on migratory patterns of fish species that inhabit and spawn in Lake St. Martin.</p> <p>Dauphin River First Nation is concerned about fish stranding and winter fish kill.</p> <p>Dauphin River First Nation is concerned about sediment transport and erosion, the reduction of lake levels in the north basin of Lake St. Martin and potential whitefish migratory disruption through the Dauphin River, and heightened differential of lake levels between the south and north Lake St. Martin during channel operations because of the Narrows serving as a hydraulic control.</p> <p>Dauphin River First Nation is concerned about flow velocity and turbidity changes at the Narrows and impacts to whitefish spawning habitat as well as the potential loss of fish larvae to the LSMOC right after hatching.</p> <p>Dauphin River First Nation is concerned about the level of chlorophyll α concentration and its impact to waterbodies and the overall health of fish and fish habitat within the LAA.</p> <p>Dauphin River First Nation is concerned about the reliability of information used to assess fish and fish habitat.</p> <p>Dauphin River First Nation is concerned about nearshore habitats as the Project will alter lake levels in Lake St. Martin as part of its normal operations and has the potential to disrupt and alter nearshore fish habitat.</p>			<p>traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	

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<p>Dauphin River First Nation is concerned that the AEMP does not verify the predicted effects on surface water quality and fish habitat.</p> <p>Dauphin River First Nation is concerned that the potential effects to aquatic habitat are oversimplified.</p> <p>Dauphin River First Nation is concerned about mobilized mercury in drainage water.</p> <p>Dauphin River First Nation is concerned about the limited array of water quality data related to the west of the LMOC and the south of the LSMOC that may be affected by the Project.</p> <p>Dauphin River First Nation is concerned that changes to groundwater and surface water flows caused by the Project will impact water quality.</p> <p>Dauphin River First Nation is concerned about the water monitoring and sampling of high land use or high importance areas for Indigenous users in the PDA and LAA as well as the use of traditional knowledge in monitoring programs.</p> <p>Dauphin River First Nation is concerned about impacts to commercial fisheries and the effects on Indigenous socioeconomic conditions, cultural, and the current use of lands and resources.</p> <p>Dauphin River First Nation is concerned about potential Project effects to cultural experience or knowledge transitions that could result from loss of fishing opportunities in preferred, culturally important areas. Dauphin River First Nation is concerned that the Project will increase the negative perception that the fish are unhealthy.</p> <p>Dauphin River First Nation is concerned about how changes in local drainage and water flow will affect water quality for supporting a viable, rights-based and commercial fishers as well as supporting other social and cultural uses of Lake St. Martin and Sturgeon Bay in Lake Winnipeg, concerns exacerbated by concerns about existing cumulative effects.</p> <p>Dauphin River First Nation is concerned about the impact of algae blooms on the condition of existing fishery on Lake St. Martin.</p> <p>Dauphin River First Nation is concerned that Lake St. Martin is examined as a single basin lake despite the identification of a south and north basin.</p> <p>Dauphin River First Nation is concerned about Project effects on fish related to changes to lake levels on Lake St. Martin, changes to flow rates and volumes at the Narrows and through the Dauphin River.</p> <p>Dauphin River First Nation is concerned that changes of hydraulic flows through the Narrows and Dauphin Rivers will affect fish.</p>				

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p><u>Recommendations made by Dauphin River First Nation:</u></p> <ul style="list-style-type: none"> • Dauphin River First Nation recommends reopening the fish hatchery • Dauphin River First Nation recommends compensation for commercial fishers every time the channel is operated. • Dauphin River First Nation recommends considering moving the water to Cedar Lake • Dauphin River First Nation recommends considering moving the water to the War Path River • Dauphin River First Nation recommends the monitoring of all mitigation efforts should proceed until a one-in-ten year flood event has occurred, and alterations to the monitoring program should only occur following confirmation of the effectiveness of the mitigation measures following that flood event. • Dauphin River First Nation recommends identifying the number of Indigenous respondents for the Groundwater and Surface Water Management Plans. • Dauphin River First Nation requests that Manitoba Infrastructure engage with Dauphin River First Nation in a water quality workshop to identify Dauphin River First Nation's values and cultural standards related to water quality in Lake St. Martin. • Dauphin River First Nation recommends the involvement in Indigenous FSC (food, social and ceremonial) and commercial fish harvesters in the development and implementation of any monitoring and follow-up program to see how changes are occurring and how meaningful they are. • Dauphin River First Nation requests the inclusion of indicators surrounding fish and fishing that are meaningful to Indigenous groups to understand Project impacts. • Dauphin River First Nation First Nation recommends a water quality station that includes collections to determine lake redox potential must be established in the south basin of Lake Manitoba. • Dauphin River First Nation recommends that the SWEMP and AEMP monitoring programs in the south basin of Lake Manitoba be long term rather than a two-year sampling program. • Dauphin River First Nation requests that Manitoba Infrastructure run analysis using years when the Potage Diversion has been operated and include the 2014/2015 flood years. 				

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p><u>Sources :</u></p> <p>Firelight 2022</p> <p>Golder Associates 2018</p> <p>IRTC 2022a</p> <p>IRTC 2022b</p> <p>IRTC 2022c</p> <p>IRTC 2022d</p> <p>Manitoba Infrastructure 2019b</p> <p>Manitoba Infrastructure Indigenous Engagement Program</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.6</p> <p>Olson et. al 2020a</p>				
Plants and Plant Harvesting				
<p><u>Existing Conditions:</u></p> <p>Dauphin River First Nation reported harvesting the following traditional plants: <i>weeke</i> (<i>weke</i>, sweet flag), snakeroot, sweetgrass, cedar, balsam poplar, bearberry, blueberry, Canadian gooseberry, choke cherry, highbush cranberry, jackpine, juniper, Labrador tea, raspberry, rattlesnake root, sage, Saskatoon berry, Seneca root, pine and tamarack, lady slipper, red willow, moss berry, kinnikinic berries.</p> <p>Dauphin River First Nation reported that cranberries, raspberries and moss berries are harvested at Cranberry Creek and tobacco can be found at Moosehorn and Ashern. <i>Weeke</i> (<i>weke</i>) is harvested at Hay Point. Sage is harvested on the shore of Lake Manitoba and kinnikinic berries are harvested at the Narrows.</p> <p>Dauphin River First Nation also reported harvesting locations at Fairford, Kinwow Bay, Silver Bay, Big Dog Lake, Gypsumville and Duck Mountain.</p> <p>Dauphin River First Nation reported previously gathering berries and medicinal plants in their traditional territory, but the 2011 flood removed much of the desired vegetation.</p> <p>Dauphin River First Nation indicated that medicinal plant gathering areas were affected by operation of the EOC.</p> <p>Dauphin River First Nation reported that traditional medicines are used to treat many ailments.</p> <p>Dauphin River First Nation reported that the quantity of valued plants and medicines have declined, including berries and firewood.</p>	<p><u>Plant species Identified by Dauphin River First Nation:</u> <i>weeke</i> (<i>weeke</i>, <i>weke</i>, sweet flag), snakeroot, sweetgrass, cedar, balsam poplar, bearberry, blueberry, Canadian gooseberry, chokecherry, highbush cranberry, jackpine, juniper, Labrador tea, raspberry, sage, Saskatoon berry, Seneca root, tamarack, pine, red willow, moss berry, kinnikinic berries.</p> <p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, giant hyssop, baneberry, speckled alder, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugle-weed, Canada mayflower, wild mint, morel, yellow evening primrose, self-heal, pin cherry, sand cherry, plum, bracken (fiddlehead), wintergreen, bur oak, wild black currant, red currant, prairie rose, wild rose, cloud berry,</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Dauphin River First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Dauphin River First Nation occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Dauphin River First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component. The RVMP includes weed control measures and herbicide application (e.g., glyphosate) will be required in some instances. Integrated approaches using mechanical treatment and active revegetation will be used where possible. Areas of existing weed infestation will likely require broadcast herbicide application. Herbicide application will not occur within 30 m of waterbodies and fish habitat and will be handled under a pesticide permit.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also</p>

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<p>Dauphin River First Nation reported the abundance of medicine plants has also decreased. Tobacco, cedar, and weekay are not as plentiful as they once were, and harvesters have to travel farther in order to find medicines.</p> <p>Dauphin River First Nation reported that plants used for food, medicine, and other purposes such as firewood, have been impacted by a variety of stressors that include flooding, privatisation of property and the installation of barriers, infrastructure developments including those used for flood control, and human activity.</p> <p>Dauphin River First Nation reported that berry-picking often occurs as opportunities arise, whether while travelling or while out on the land conducting other activities.</p> <p>Dauphin River First Nation reported that human disturbance and activity have moreover affected the strength of medicines.</p> <p><u>Issues and Concerns:</u></p> <p>Dauphin River First Nation expressed concern that traditional berry picking and medicine harvest areas may be affected by local flooding.</p> <p>Dauphin River First Nation expressed concern that access road construction has the potential to disturb vegetation.</p> <p>Dauphin River First Nation is concerned about the risk of erosion created by altered water flows and levels degrading plant harvesting sites and flooding medicine habitats as a result of the Project.</p> <p>Dauphin River First Nation is concerned about impacts to vegetation growth and ability to harvest medicines, loss of berry plants, concerns about the use of glyphosate for weed control, and loss of harvesting areas.</p> <p>Dauphin River First Nation is concerned about the potential spread of invasive species caused by the Project.</p> <p>Dauphin River First Nation is concerned about impacts to sensitive areas outside the assessment area and impacts to unidentified important landscape features and soils affected by the Project.</p> <p>Dauphin River First Nation is concerned that sustained reductions in water levels, the intersecting of local drainages adjacent to the channels, and reduction in watershed drainage areas caused by the construction of the Project will impact the overall quantity of shoreline and riparian habitat.</p> <p><u>Recommendations made by Dauphin River First Nation:</u></p> <ul style="list-style-type: none"> Dauphin River First Nation encourages Manitoba Infrastructure to inform Dauphin River First Nation communities if a wildfire spreads beyond the PDA which could put land users or communities at risk. 	<p>dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, red clover, dwarf blueberry, bog blueberry, cranberry, logan berry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> The proposed Lake Manitoba Channel is in the PDA. Portions of Lake Manitoba are in the PDA. The Narrows are within the PDA. Cranberry Creek, Fairford, Moosehorn, Ashern, Dog Lake and Silver Bay are in the LAA. Hay Point, Kinwow Bay, Gypsumville and Duck Mountain are outside of the RAA</p>	<p>collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>plant species management, and wildlife habitat restoration</p> <ul style="list-style-type: none"> As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. 	<p>been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Dauphin River First Nation to discuss the Environmental Management Plans. A meeting was held with , Dauphin River First Nation on the following date: September 22, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Dauphin River First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Sources:</p> <p>Indigenous Engagement Program for the Project</p> <p>Indigenous Engagement Program – Appendix 5A.6</p> <p>IRTC 2022a</p> <p>IRTC 2022b</p> <p>IRTC 2022c</p> <p>IRTC 2022d</p> <p>Golder Associates 2018</p> <p>Olson et. al 2020a</p>			<p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Dauphin River First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Travel Routes				
<p><u>Existing Conditions:</u></p> <p>Dauphin River First Nation reported the existence of a snowmobile trail that intersects the proposed LSMOC.</p> <p>Dauphin River First Nation reported utilizing a network of trails and water routes along the shorelines of Lake Winnipeg.</p> <p>Dauphin River First Nation reported the use of water routes where participants travelled by boats and canoes to set nets and catch multiple species of fish</p> <p>Dauphin River First Nation reported the 2011 flooding event prevented the Dauphin River from freezing entirely, which inhibited them from travelling along the river in the winter and resulted in there being too much water to travel the river in the spring and summer.</p> <p>Dauphin River First Nation reported that Cultural Continuity values include snowmobile routes and historical wagon routes used to travel across the territory.</p> <p><u>Issues and Concerns:</u></p> <p>Dauphin River First Nation expressed concerns regarding Lake St. Martin Access Road Project including, the road's location, whether or not it will be gated, and potential for impacts to road maintenance.</p> <p>Dauphin River First Nation is concerned about the Project's potential effects on cultural continuity and loss of trails.</p> <p>Dauphin River First Nation is concerned that the Project will adversely impact the heritage value associated with the Fairford Trail and its historical function as a travel route and Watchorn Creek crossing.</p> <p><u>Recommendations made by Dauphin River First Nation:</u></p> <ul style="list-style-type: none"> Dauphin River First Nation recommends that the proponent should build a bridge across the Dauphin River. Dauphin River First Nation recommends that debris along the Dauphin River, including dead trees, be cleaned up. <p><u>Sources:</u></p> <p>IRTC 2022a IRTC 2022b IRTC 2022d Golder Associates 2018 Manitoba Infrastructure 2019b Indigenous Engagement Program – Appendix 5A.6</p>	<p><u>Locations:</u> Portions of Lake Winnipeg's shoreline and Fairford River are in the PDA. Watchorn Creek is within the LAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Dauphin River First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of travel routes by Dauphin River First Nation occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Dauphin River First Nation</p> <p>Access to the LSMOC area for Project construction is described in Volume 1, Section 3.4.3.8 of the Project EIS. Selection of alternatives for the Lake St. Martin Access Road, including consideration of crossing the Dauphin River are part of the Lake St. Martin Access Road and are discussed in the environmental assessment for that Project. Past issues with flooding debris along the Dauphin River in 2011 and 2014 were associated with the EOC. Measures will be taken to reduce issues associated with debris for the Project, and the EOC will be decommissioned.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g.,</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> suitable means of crossing the LSMOC following construction. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Dauphin River First Nation to discuss the Environmental Management Plans. A meeting was held with , Dauphin River First Nation on the following date: September 22, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for</p>

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		<p>construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<ul style="list-style-type: none"> As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>Indigenous training and participation in monitoring program. No feedback has been received from Dauphin River First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions</p>

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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
				<p>with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Dauphin River First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p><u>Existing Conditions:</u></p> <p>Dauphin River First Nation noted two historic settlements on the west shore of Lake Winnipeg. Graves are located at one of these settlements, north of the EOC.</p> <p>Dauphin River First Nation noted that the Provincial Archaeological Site Inventory identified six registered archaeological sites in the Interlake Region, with one of the sites located on Dauphin River First Nation lands.</p> <p>Dauphin River First Nation reported camping at McBeth Point, Kinwow Bay, and Lake St. Martin.</p> <p>Dauphin River First Nation mentioned unmarked graves at the northwest arm of Kinwow Bay and a powwow site on Lake Manitoba.</p> <p>Dauphin River First Nation reported that Cultural Continuity values including gathering sites for community events and camping sites.</p> <p>Dauphin River First Nation reported that travel routes include trails to haul water.</p> <p><u>Issues and Concerns:</u></p> <p>Dauphin River First Nation raised concerns regarding the Projects on going flooding in the region from control structures and increases in water levels on Lake Winnipeg that may cause the erosion of lake shoreline that diminishes the value of camping.</p> <p>Dauphin River First Nation raised concerns about the effects of Project-related flooding on important sites, such as ceremonial sites and unmarked graves.</p> <p>Dauphin River First Nation is concerned with the limitation of land valuation to agricultural activities and does not include the</p>	<p><u>Locations:</u> A portion of the west shore of Lake Winnipeg is within the PDA. Lake St. Martin is in the PDA. McBeth Point and Kinwow Bay are outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about location of habitation, cultural and spiritual sites and areas identified by Dauphin River First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Dauphin River First Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow up studies, Manitoba monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized</p>

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<p>value of land to Indigenous groups and its importance in traditional activities.</p> <p>Dauphin River First Nation is concerned about the Project-related changes in water levels, including reduction in water levels, has the potential to interact with other elements of cultural heritage, including use values and associated spiritual and cultural values.</p> <p>Dauphin River First Nation is concerned about the Project's potential effects on cultural continuity, such as disruption of cultural transmission, reduced opportunities to spend time on the land and, loss of trails, burial sites, and habitation sites.</p> <p>Dauphin River First Nation is concerned about the ability to be involved in the monitoring and mitigation of heritage impacts.</p> <p>Dauphin River First Nation is concerned about the excavation and removal of heritage resources from the territory which will result in a significant residual effect to Dauphin River First Nation's cultural heritage.</p> <p>Dauphin River First Nation is concerned about whether they will be notified or involved in heritage mitigation measures in event that a channel is breached.</p> <p>Dauphin River First Nation is concerned about the residual effects on Indigenous groups' cultural and spiritual connection to sites which have been disturbed or destroyed due to pre-construction archaeological salvage excavations.</p> <p>Dauphin River First Nation is concerned about Project effects on cultural heritage and current use related to changes to lake levels on Lake St. Martin, changes to flow rates and volumes at the Narrows and through the Dauphin River.</p> <p>Dauphin River First Nation is concerned about the Proponent's decision to excavate a regionally significant cultural heritage site rather than preserve and protect it.</p> <p>Dauphin River First Nation is concerned that changes in water levels caused by the Project in the south basin of Lake St. Martin will impact cultural heritage.</p> <p><u>Sources:</u> Firelight 2022 Golder Associates 2018 IRTC 2022a IRTC 2022b IRTC 2022d Manitoba Infrastructure 2019b Olson et al. 2020a</p>		<p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<p><i>Residual Effects after Mitigation:</i> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails, affecting Dauphin River First Nation and Peguis First Nation, and possibly Pinaymootang First Nation. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, effects on cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Dauphin River First Nation to discuss the Environmental Management Plans. A meeting was held with , Dauphin River First Nation on the following date: September 22, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Dauphin River First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is</p>

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<p>working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Dauphin River First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>				
<p>Dauphin River Northern Affairs Community <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u> Dauphin River Northern Affairs Community report that moose and deer habitat were affected by operation of the EOC, and that there has been an increase in problem bears as a result of habitat disturbance and displacement.</p> <p>Dauphin River Northern Affairs Community noted that thousands of mature fish were killed when trapped in the EOC, which attracted additional terrestrial and bird scavenging.</p> <p>Dauphin River Northern Affairs Community indicated that EOC operation resulted in an increase of water levels, becoming too deep for muskrat and beavers, destroying their structures. Dauphin River Northern Affairs Community noted that this has resulted in trapping areas being wiped out.</p> <p><u>Issues and Concerns:</u></p>	<p><u>Species identified by Dauphin River Northern Affairs Community:</u> moose, deer, muskrat, beaver, bear.</p> <p><u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> elk, coyote, wolf, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about hunting and trapping by Dauphin River Northern Affairs Community presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Dauphin River Northern Affairs Community to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p>

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<p>Dauphin River Northern Affairs Community is concerned that wildlife habitat will be lost.</p> <p>Dauphin River Northern Affairs Community have concerns about the Permanent Outlet Channel effects on traditional hunting activities along Dauphin River.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.19</p> <p>Einarsson 2017</p> <p>Manitoba Infrastructure Indigenous Engagement Program</p>	<p><u>Locations:</u> Dauphin River is within the LAA.</p>	<p>be hunted or trapped by Dauphin River Northern Affairs Community</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<ul style="list-style-type: none"> As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. 	<p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Dauphin River Northern Affairs Community to discuss the Environmental Management Plans. As of mid-March, 2022, Dauphin River Northern Affairs Community has not confirmed a meeting date. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Dauphin River Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba</p>

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			<p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA</p>	<p>Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and</p>

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<p>Infrastructure will review any information about hunting and trapping that Dauphin River Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>				
<p>Aquatic Environment and Fishing</p>				
<p><u>Existing Conditions:</u></p> <p>Dauphin River Northern Affairs Community indicated that EOC operation has resulted in damaged equipment, depleted fish stock and a loss of spawn in 2011, 2012, and 2014. Dauphin River Northern Affairs Community noted that thousands of mature fish were killed when trapped in the channel.</p> <p>Dauphin River Northern Affairs Community reported that fishing is their livelihood and it is being damaged.</p> <p>Dauphin River Northern Affairs Community reported that in 2018 and 2019, Dauphin River Community Council fishers experienced debris, sediment and “slime/sludge” in their fishing nets and fishing lines.</p> <p>Dauphin River Northern Affairs Community reported that during the operation of the emergency operation channel, debris got caught and destroyed fishers’ equipment.</p> <p>Dauphin River Northern Affairs Community reported that floating debris is ending up in commercial fishing areas and affecting their ability to fish and damaging nets.</p> <p>Dauphin River Northern Affairs Community reported that in 2011, water breached the beach ridge at Johnson Beach and caused damage to the beach and spawning grounds.</p> <p>Dauphin River Northern Affairs Community reported that Buffalo Creek “blew out” in 2011 and all that debris and sediment ended up in their fishing grounds.</p> <p><u>Issues and Concerns:</u></p> <p>Dauphin River Northern Affairs Community expressed concern that the water levels on Lake Winnipeg and the additional permanent outlet channel will have an effect on the flood-risk in every year.</p> <p>Dauphin River Northern Affairs Community has concerns regarding impacts of the permanent operation channel operations on water quality in Dauphin River and on Lake Winnipeg.</p> <p>Dauphin River Northern Affairs Community has concerns regarding the erosion caused by the permanent operational channel operations from the increase of water flow on the Dauphin River and into Lake Winnipeg.</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye</p> <p><u>Locations:</u> Portions of Lake Winnipeg are in the PDA. Dauphin River is in the LAA. Johnson Beach is in the LAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by Dauphin River Northern Affairs Community presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Dauphin River Northern Affairs Community to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Dauphin River Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> • Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. • Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). • Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. • Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Dauphin River Northern Affairs Community has concerns regarding potential hazardous debris flow into the Dauphin River caused by the channel operations.</p> <p>Dauphin River Northern Affairs Community has concern for the fish spawning areas on Lake Winnipeg, noting that It is very important to their community that spawning is not affected as it is essential to have sustainable base for the commercial fishing.</p> <p>Dauphin River Northern Affairs Community has concerns that fish migration will be affected by the new waterways, noting that fish stranding occurred in previous emergency operation channels operations.</p> <p>Dauphin River Northern Affairs Community has concerns that debris and mud during construction will affect aquatic species, commercial fisheries and public safety.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.19</p> <p>Einarsson 2017</p>		<p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted “in the dry” and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. • Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate 	<p>(Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Dauphin River Northern Affairs Community to discuss the Environmental Management Plans. As of mid-March, 2022, Dauphin River Northern Affairs Community has not confirmed a meeting date. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Dauphin River Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
			<p>effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term</p>	<p>Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Dauphin River Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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			persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.	
Plants and Plant Harvesting				
<p><u>Existing Conditions:</u> Dauphin River Northern Affairs Community reported that the availability of berries and other edible plants have been negatively affected by flooding and use of the EOC.</p> <p><u>Issues and Concerns:</u> Dauphin River Northern Affairs Community have concerns about the Permanent Outlet Channel effects on traditional and gathering activities along Dauphin River.</p> <p><u>Sources:</u> Manitoba Infrastructure Indigenous Engagement Program Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.19 Einarsson 2017</p>	<p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> Dauphin River is within the LAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>Manitoba Infrastructure acknowledges that the information about use of plants and plant harvesting by Dauphin River Northern Affairs Community presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use plants and plant harvesting by Dauphin River Northern Affairs Community throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Dauphin River Northern Affairs Community. While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment</p>

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			<ul style="list-style-type: none"> Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA</p>	<p>(feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Dauphin River Northern Affairs Community to discuss the Environmental Management Plans. As of mid-March, 2022, Dauphin River Northern Affairs Community has not confirmed a meeting date. (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Dauphin River Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force</p>

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				<p>requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Dauphin River Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p><u>Issues and Concerns:</u></p> <p>Dauphin River Northern Affairs Community has expressed concern regarding the location of the Lake St. Martin Access Road Project, effects on road maintenance and whether it will be gated.</p> <p>Dauphin River Northern Affairs Community has expressed concern regarding accessing the south side of Dauphin River. A winter ice-road crossing is utilized, however, ice-jams delay or prevent safe access to the south side of Dauphin River.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure 2019a</p> <p>Dauphin River Northern Affairs Community, 2020-07-20</p>	<p><u>Locations:</u> No specific travel routes within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by Dauphin River Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by Dauphin River Northern Affairs Community to occur within the RAA.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Dauphin River Northern Affairs Community presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of travel routes by Dauphin River Northern Affairs Community occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Dauphin River Northern Affairs Community.</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. 	<p>The success of mitigation for travel routes will be monitored through the EMPs These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were Detailed mitigation and monitoring program review discussions have been incorporated into the proposed community-</p>

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		<p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the</p>	<ul style="list-style-type: none"> Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed at specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered</p>	<p>specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Dauphin River Northern Affairs Community to discuss the Environmental Management Plans. As of mid-March, 2022, Dauphin River Northern Affairs Community has not confirmed a meeting date. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Dauphin River Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring</p>

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		<p>LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>		<p>programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Dauphin River Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Habitation, Cultural and Spiritual Sites				
<p>Manitoba Infrastructure has obtained no information about Dauphin River Northern Affairs Community use of habitation, cultural and spiritual sites in the RAA has been obtained through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations used by Dauphin River Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about location of habitation, cultural and spiritual sites and areas identified by Dauphin River Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Dauphin River Northern Affairs Community to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Dauphin River Northern Affairs Community to discuss the Environmental Management Plans. As of mid-March, 2022, Dauphin River Northern Affairs Community has not confirmed a meeting date. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy.</p>

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		<p>in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>		<p>contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Dauphin River Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for</p>

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<p>Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Dauphin River Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>				
<p>Ebb and Flow First Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Issues and Concerns:</u> Ebb and Flow First Nation reported harvesting moose, white-tailed deer, marten, fisher, rabbit. Ebb and Flow First Nation is concerned about the availability of moose. <u>Sources:</u> Manitoba Infrastructure Indigenous Engagement Program for the Project. Indigenous Engagement Program – Appendix 5A.7</p>	<p><u>Species Identified by Ebb and Flow First Nation:</u> moose, white-tailed deer, marten, fisher, rabbit. <u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> mule deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, short-tailed weasel, long-tailed weasel, mink, muskrat, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge. <u>Locations:</u> No specific hunting or trapping sites or locations used by Dauphin River Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use. In the absence of specific information about location of hunting and trapping sites and areas identified by Ebb and Flow First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Ebb and Flow First Nation to occur within the RAA. While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively. The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA. Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project. For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component. During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p>

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		<p>wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA</p>	<p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Ebb and Flow First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities,</p>

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				<p>including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE R, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Ebb and Flow First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u> Ebb and Flow First Nation reported that fish were stranded in the Emergency Channel.</p> <p><u>Issues and Concerns:</u> Ebb and Flow First Nation is concerned about how the Project will affect commercial fisheries. Ebb and Flow First Nation is concerned about the spread of zebra mussels. Ebb and Flow First Nation is concerned about increased sediment loads into Lake Manitoba.</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye (pickerel)</p> <p><u>Locations:</u> Portions of Lake Manitoba are in the PDA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by Ebb and Flow First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such as water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p>

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<p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program for the Project</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.7</p>		<p>Ebb and Flow First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Ebb and Flow First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas.</p>	<ul style="list-style-type: none"> Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. 	<p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<ul style="list-style-type: none"> • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted "in the dry" and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. • Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). • To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish 	<p>program. No feedback has been received from Ebb and Flow First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p>

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			<p>upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible.</p> <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered watershed areas over other alignments that were considered over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p>Measures to avoid or reduce effects to commercial fishing are identified in the CEMP and include:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will engage with commercial fish harvesters, anglers, local resource users, and MSD Regional Officials to address potential conflict, disturbance, or access restrictions to fishing/harvesting areas in the PDA and LAA, and availability of fish resources. <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Ebb and Flow First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
Plants and Plant Harvesting				
<p><u>Existing Conditions:</u> Ebb and Flow First Nation have reported harvesting berries.</p> <p><u>Issues and Concerns:</u> Ebb and Flow First Nation is concerned about berry harvesting areas.</p> <p><u>Sources:</u> Manitoba Infrastructure Indigenous Engagement Program Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.7</p>	<p><u>Plant species identified by Ebb and Flow First Nation:</u> berries.</p> <p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> No specific plant harvesting sites or locations within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>In the absence of specific information about location of plant harvesting sites and areas identified by Ebb and Flow First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Ebb and Flow First Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated.</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring</p>

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			<p>restoration of vegetation cover in disturbed areas.</p> <ul style="list-style-type: none"> The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>program. No feedback has been received from Ebb and Flow First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p>

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				Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3).Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Ebb and Flow First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.
Travel Routes				
Manitoba Infrastructure has obtained no information about Ebb and Flow First Nation use of travel routes in the RAA has been obtained through the Indigenous engagement program or a review of publicly available literature.	<u>Locations:</u> No specific travel routes within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about location of travel routes identified by Ebb and Flow First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for use of travel routes by Ebb and Flow First Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. 	<p>The success of mitigation for travel routes will be monitored through the EMPs These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations</p>

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		<p>trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Ebb and Flow First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce.</p>

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				<p>Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Ebb and Flow First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p>Manitoba Infrastructure has obtained no information about Ebb and Flow First Nation use of habitation, cultural and spiritual sites in the RAA has been obtained through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about location of habitation, cultural and spiritual sites and areas identified by Ebb and Flow First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Ebb and Flow First Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow up studies, Manitoba monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated</p>

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		<p>habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<p>Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><i>Residual Effects after Mitigation:</i> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>(Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Ebb and Flow First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the</p>

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				<p>Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Ebb and Flow First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
<p>Fisher Bay Northern Affairs Community <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p>Manitoba Infrastructure has obtained no information about Fisher Bay Northern Affairs Community hunting or trapping or traditionally harvested species in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> moose, mule deer, white-tailed deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, muskrat, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p> <p><u>Locations:</u> No specific hunting or trapping sites or locations used by Fisher Bay Northern Affairs</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>In the absence of specific information about current use by Fisher Bay Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping Fisher Bay Northern Affairs Community occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p>

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	<p>Community within the RAA were identified through the Indigenous Consultation and Engagement Program for the Project or review of relevant secondary sources.</p>	<p>be hunted or trapped by Fisher Bay Northern Affairs Community</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<ul style="list-style-type: none"> As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. 	<p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Fisher Bay Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and</p>

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			<p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Fisher Bay Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Aquatic Environment and Fishing				
<p>Manitoba Infrastructure has obtained no information about Fisher Bay Northern Affairs Community fishing or traditionally harvested fish species in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye (pickerel).</p> <p><u>Locations:</u> No specific aquatic environment and fishing locations used by Fisher Bay Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>In the absence of specific information about current use by Fisher Bay Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Fisher Bay Northern Affairs Community to occur within the RAA and that species commonly understood to be caught by Indigenous peoples that occur within the RAA may be fished by Fisher Bay Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment,</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p>	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized</p>

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		<p>and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted “in the dry” and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. • Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to 	<p>in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Fisher Bay Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force</p>

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			<p>the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about aquatic environment and fishing that Fisher Bay Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
Plants and Plant Harvesting				
<p>Manitoba Infrastructure has obtained no information about Fisher Bay Northern Affairs Community plant harvesting or traditionally harvested plant species in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> No specific plant harvesting sites or locations used by Fisher Bay Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>In the absence of specific information about current use by Fisher Bay Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Fisher Bay Northern Affairs Community to occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Fisher Bay Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for</p>

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			<p>restoration of vegetation cover in disturbed areas.</p> <ul style="list-style-type: none"> The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>Indigenous training and participation in monitoring program. No feedback has been received from Fisher Bay Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition</p>

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				<p>to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Fisher Bay Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p>Manitoba Infrastructure has obtained no information about Fisher Bay Northern Affairs Community use of travel routes in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific travel routes Fisher Bay Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by Fisher Bay Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by Fisher Bay Northern Affairs Community to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also</p>

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		<p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<p>alignment will be on top of the containment dikes on either side of the excavated channel.</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology. In addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Fisher Bay Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force</p>

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				<p>requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Fisher Bay Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p>Manitoba Infrastructure has obtained no information about Fisher Bay Northern Affairs Community use of habitation, cultural and spiritual sites in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations used by Fisher Bay Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about habitation, cultural and spiritual sites and areas identified by Fisher Bay Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Fisher Bay Northern Affairs Community to occur within the RAA</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRlA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. 	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the</p>

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		<p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><i>Residual Effects after Mitigation:</i> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Fisher Bay Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help</p>

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				<p>to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE R, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Fisher Bay Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
<p>Fisher River Cree Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u> Fisher River Cree Nation reported hunting and trapping moose, white-tailed deer, elk, mule deer, upland birds, waterfowl, lynx, marten and fisher, lynx, otter, mink, fox, coyote, bear, weasel, spruce grouse, caribou, geese, rabbits, chickens, beaver and muskrat. Fisher River Cree Nation reported that moose and white-tailed deer are important species for subsistence. Fisher River Cree Nation reported that hunting took place mainly in the spring and fall for waterfowl, deer and moose hunting was primarily from August to December.</p>	<p><u>Species Identified by Fisher River Cree Nation:</u> moose, white-tailed deer, elk, mule deer, caribou upland birds, waterfowl, lynx, marten, fisher, lynx, otter, mink, fox, coyote, bear, weasel, spruce grouse, geese, rabbits, chickens, beaver, muskrat. <u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> wolf, wolverine, squirrel, mallard, ruffed grouse, sharp-tailed grouse,</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use. Manitoba Infrastructure acknowledges that the information about hunting and trapping by Fisher River Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Fisher River Cree Nation occur throughout the RAA and that species commonly understood to be</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project. For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Fisher River Cree Nation reported hunting rabbits and chickens in the summer, fall and winter.</p> <p>Fisher River Cree Nation reported that moose populations are down in the Project Area.</p> <p>Fisher River Cree Nation reported that the moose population is critically low in the RAA, with moose hunting closed to everyone including Fisher River Cree Nation and other treaty rights holders.</p> <p>Fisher River Cree Nation hunt and trap along the shoreline of Lake Winnipeg and along Buffalo Creek, with moose and deer habitat found in both areas.</p> <p>The Fisher River Cree Nation's traditional hunting and trapping grounds covered extensive areas of forest, lakes, and marshlands.</p> <p>Fisher River Cree Nation reported that an important hunting, trapping, and area is Ramsay's Point area east of the Fisher River Cree Nation Reserve on the shores of Lake Winnipeg.</p> <p>Fisher River Cree Nation reported that trapping was done in the late fall and winter for most species, and in the spring for muskrat and beaver. Beaver and muskrat meat was eaten; the fur was sold or tanned for making moccasins or gauntlets.</p> <p>Fisher River Cree Nation's traditional trapping grounds were generally the same areas in which they hunted, although there were certain areas where they went primarily to trap.</p> <p>Fisher River Cree Nation reported trapping in the Dauphin River area and the Mantagao River. Trapping was done throughout the Washow Bay-Fisher Bay peninsula, including the Sugar Creek and Ramsay Point areas. Areas in and around Jackhead River and the Lakes St. George, St. Andrews, St. Michael were also traditional trapping grounds</p> <p>Fisher River Cree Nation Elders said their parents and grandparents would go out for weeks and sometimes months on hunting trips. They tanned the hides for making moccasins and mitts and used sinew for snowshoes. They would share the meat with others in the community.</p> <p>Fisher River Cree Nation reported that there is much less hunting and game near the access road.</p> <p>Fisher River Cree Nation noted the Project is adjacent to Game Hunting Area (GHA) 21, GHA 16, GHA 25 to the southeast.</p> <p>Fisher River Cree hunt upland birds and waterfowl.</p> <p>Fisher River Cree Nation reported that fisher and lynx and marten are very important for Fisher River Cree Nation trappers</p>	<p>Canada goose, bald eagle, , partridge.</p> <p><u>Locations:</u> Buffalo Creek and a portion of the shoreline of Lake Winnipeg are within the PDA. GHA 21 intersects the PDA, GHA 16 and GHA 25 intersect the LAA. Dauphin River is within the LAA. The Mantagao River is within the RAA. Kinwow Bay, Washow Bay, Fisher Bay Peninsula, Sugar Creek, Jackhead River, Lake St. George, St. Andrew Lake, Lake St. Michaels, Bloodvein River Ramsay's Point and McBeth Point are outside of the RAA.</p>	<p>harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Fisher River Cree Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>gated access road to reduce wildlife mortality risk.</p> <ul style="list-style-type: none"> As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. 	<p>Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Meetings were held with Fisher River Cree Nation on the following dates: April 28 2021, May 4, 2021, May 5, 2021, and May 6, 2021 to discuss the Environmental Management Plans. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Fisher River Cree Nation were provided to Manitoba Transportation and Infrastructure in April 2021.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Fisher River Cree Nation reported that dead standing trees provide important nesting locations for marten and squirrels.</p> <p>Fisher River Cree Nation reported that moose numbers have declined significantly in their traditional use areas, resulting in a closure of moose hunting.</p> <p>Fisher River Cree Nation reported that knowledge does not separate species from their habitat, or rank them in importance before doing an assessment. The species are connected to the land and waters. They look at how the 'world' is doing, how is it all functioning together. Their concerns about the Channel Project include the whole 'world' or system of lakes, and rivers that flow into Lake Winnipeg. As it is all connected to them, and their lands, they know they have expertise and knowledge that will help the relevant parties with the EIS Review.</p> <p>Fisher River Cree Nation reported that hunters and trappers of First Nation will respect the traditional hunting and trapping grounds of a First Nation and will not knowingly encroach on an area traditionally used by another member or family from their own community.</p> <p>Fisher River Cree Nation reported that hunters have been forced to travel hundreds of miles to hunt moose.</p> <p><u>Issues and Concerns:</u></p> <p>Fisher River Cree Nation reported trapping-related concerns including a reduction in access to trapping areas; wildlife disturbance due to Project construction; disruption of wildlife movement patterns; and increased wildlife mortality due to increased vehicular traffic.</p> <p>Fisher River Cree Nation is concerned with the disturbance of wildlife and wildlife habitat due to Project construction and operation and presence of permanent infrastructure that will bisect the land.</p> <p>Fisher River Cree Nation is concerned that the channels will affect elk and moose migration routes.</p> <p>Fisher River Cree Nation is concerned with the potential adverse effects of the Project on wildlife, particularly moose, and the subsequent impact on aboriginal and treaty rights.</p> <p>Fisher River Cree Nation is concerned with cumulative impacts of development resulting in the loss of traditional lands and resources.</p> <p>Fisher River Cree Nation is concerned that the Wildlife Management Plan is very limited study and assessment habitat for moose and fur bearers.</p> <p>Fisher River Cree Nation is concerned that the dike/maintenance roads along either side of the channel will provide greater access for hunters and opportunities for poachers. Additionally, game animals such as moose and deer</p>			<ul style="list-style-type: none"> The approach to use focal species recognizes that while individual species have small-scale habitat preferences, larger-scale habitat preferences such as major habitat types (e.g., coniferous forest) are used by terrestrial furbearers as a whole (See IAAC-87). <p>Part a) of the formal response to IAAC-122 explains how TLRU information was incorporated into the environmental assessment process for the Project.</p> <p>Design updates, including armouring of the channels, are addressed in IAAC-38.</p> <p>A fulsome list of culturally important wildlife species identified by Fisher River Cree Nation through the Indigenous consultation and engagement program or a review of publicly available literature is available in IAAC-87 (Table 87-1).</p> <p>Should the Project be approved, Manitoba Transportation and Infrastructure will be required to follow all conditions for approval.</p> <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA</p>	<p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p>

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<p>that will frequent the channel berms and roadways will become easy prey for hunters.</p> <p>Fisher River Cree Nation is concerned about the effect of the Project on moose habitat, moose travel routes and calving areas due to construction of the road, hydro line and channel.</p> <p>Fisher River Cree Nation is concerned about access road construction through an area containing excellent moose habitat and calving grounds.</p> <p>Fisher River Cree Nation is concerned that the channel may create significant obstructions to moose travelling to their calving grounds, wintering areas, and refuges.</p> <p>Fisher River Cree Nation is concerned about Project effects on significant habitat such as breeding grounds, wildlife management area buffer zones and corridors, as well as habitats and migratory routes and calving and denning areas.</p> <p>Fisher River Cree Nation is concerned that additional traffic, noise, and navigational barriers related to the Project will reduce the quality and integrity of the land in general.</p> <p>Fisher River Cree Nation is concerned about reduced access to hunting and trapping areas due to Project construction and operation and presence of permanent infrastructure that will bisect the land.</p> <p>Fisher River Cree Nation is concerned about the impacts on treaty hunting rights as a result of a conservation closure of all moose hunting in Game Hunting Area (GHA) 21 and 21A, which encompass nearly all of Fisher River Cree Nation's interim consultation notice area. Fisher River Cree Nation reported that there have been no accommodations due to the rational that Fisher River Cree Nation can still hunt deer.</p> <p>Fisher River Cree Nation reported that hunters have been forced to travel hundreds of miles to hunt moose.</p> <p>Fisher River Cree Nation is concerned that the impact of long-term noise and activity from the construction will affect recovery of the moose population in the Local Development Area.</p> <p>Fisher River Cree Nation is concerned the noise will also affect the eco-tourism and bear hunting experiences offered by their outfitting business in the Local and Regional Development Areas.</p> <p>Fisher River Cree Nation is concerned about the reduced availability of harvested animal species in the LAA and RAA and MTI's suggestion that the impact to hunting and trapping as "negligible to low impact".</p> <p>Fisher River Cree Nation is concerned about the adverse effects on species most important to hunters and trappers such as moose, mink, muskrat, beaver, otter and other furbearers.</p>				<p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Fisher River Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>Fisher River Cree Nation is concerned that the basis of the wildlife assessment is flawed and that all subsequent assessments will be invalid.</p> <p>Fisher River Cree Nation is concerned with the current state of the Lake Winnipeg south basin and Narrows as many Fisher River Cree Nation members live, hunt and fish in those areas.</p> <p>Regardless of whether the Project nutrient and pesticide issues existed prior to the Project, it is incumbent on the provincial and federal governments to address the issue now that it has been highlighted as a concern.</p> <p>Fisher River Cree Nation is concerned that the Project will have effects on several wildlife species well beyond a distance of 1km from the PDA.</p> <p>Fisher River Cree Nation is concerned about the amount of moose habitat lost or altered.</p> <p>Fisher River Cree Nation is concerned that the studies, assessments, and mitigation plans for moose, wetland wildlife, furbearers, and other wildlife are lacking.</p> <p>Fisher River Cree Nation is concerned that reclaimed quarries will provide any worthwhile habitat.</p> <p>Fisher River Cree Nation noted that any adverse impacts to wildlife constitutes an impact of the treaty and Aboriginal rights of the Fisher River Cree Nation.</p> <p>Fisher River Cree Nation is concerned that muskrat was not identified as a specific VC despite muskrat having a special cultural and socioeconomic value to the Fisher River Cree Nation people. In addition to the value of muskrat fur for making mukluks, hats, gauntlets etc., and its commercial value through wild fur auctions, it is also considered an important health food source.</p> <p>Fisher River Cree Nation is concerned that Chief and Council were not consulted or contracted as part of the wildlife assessment process and that many wildlife pathway analyses have missed certain species of cultural and economic significance to Fisher River Cree Nation.</p> <p>Fisher River Cree Nation is concerned about the armoring mitigation plan that needs work as they are concerned regarding armoring of the channels being hazardous to big game.</p> <p>Fisher River Cree Nation is concerned that the loss of wetlands will have significant impacts on virtually all wildlife, which in turn affects treaty and aboriginal hunting rights.</p> <p>Fisher River Cree Nation disagrees that moose will move to another area where there is suitable habitat (wetlands) and therefore the impact of lost moose habitat in the Project area is negligible.</p>				

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<p>Fisher River Cree Nation is concerned about the focal species or focal groups of species habitat assessment approach, noting that selection of the marten as a focal species representative of other terrestrial furbearers is not entirely adequate, as marten habitat can be quite different from that of certain other furbearers.</p> <p>Fisher River Cree Nation is concerned about the loss of traditional hunting areas. When viewed in context to the entire Project RAA or LAA, loss of that particular hunting area may have an enormous impact on the Indigenous hunters and community that have relied on the wild game harvested there.</p> <p>Fisher River Cree Nation is concerned with the impact to its food security and economic status that may result from potential impacts of the Project on fish, fish habitat, wildlife, wetlands, and water. Fisher River Cree Nation reported that food security and sovereignty has already been affected by decisions of government, which include the recent moose hunting closure, night hunting ban, and licensing of peat harvesting operations near the community. Other effects on Fisher River Cree Nation's country foods and clean water supply have evolved over many years through indiscriminate pesticide use in silviculture operations, hydro rights of way, etc. and excessive drainage systems that have resulted in contamination of the Fisher River and Lake Winnipeg from agricultural run-off containing harmful nutrients and pesticides.</p> <p>Fisher River Cree Nation is concerned about severe loss traditional hunting grounds.</p> <p>Fisher River Cree Nation is concerned about any threat of methylmercury affecting wildlife on Fisher River Cree's traditional land and water.</p> <p><u>Recommendations made by Fisher River Cree Nation:</u></p> <ul style="list-style-type: none"> • Fisher River Cree Nation recommended that the potential impacts on wildlife from increased access and hunting to the area should be assessed and mitigated. • Fisher River Cree Nation recommended that the effects that the new road and ditches will have on moose migration routes and calving grounds be mitigated. • Fisher River Cree Nation recommended that the effects to the channel obstruction on travel routes of moose be mitigated. • Fisher River Cree Nation recommended that Manitoba should implement all other mitigation measures recommended by the Canadian Environmental Assessment Agency (CEA Agency). • Fisher River Cree Nation would like the opportunity to be involved in wildlife monitoring. 				

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<ul style="list-style-type: none"> • Fisher River Cree Nation recommends that the Wildlife Management Plan consider expanding the assessment areas for moose beyond the eastern and northern limits of the RAA. • Fisher River Cree Nation recommends that decommissioning of the temporary access roads will need to include removal of roadbeds and blockage of ROWs to the extent that access by all-terrain vehicle (ATV) is virtually impossible. • Fisher River Cree Nation recommends that the RVMP needs to recognize the critical importance of wetland habitat to the numerous other wildlife species those wetlands support, such as moose, deer, lynx, otter, mink, fox, coyote, fisher, bear, weasel, spruce grouse. • Fisher River Cree Nation recommends planting tall growing trees such as spruce, birch and poplar to provide shelter, habitat and protection for wildlife • Fisher River Cree Nation recommends that the LAA be expanded beyond 1 km because of the special attention required for moose and moose habitat. • Fisher River Cree Nation supports the establishment of the Indigenous Environmental Management Committee • Fisher River Cree Nation recommends the revegetation planning to investigate trees or other means of creating cover along the channel berms for big game and other wildlife to protect them from predators. • Fisher River Cree Nation recommends a more robust study and assessment of moose and moose habitat. • Fisher River Cree Nation recommends that monitoring covers the entire LAA rather than only within the ROW. • Fisher River Cree Nation recommends that habitat recovery plans should be implemented immediately, even before construction begins as the estimated 5-year construction period is too long to wait for replacement habitat, not only for moose but for all other wildlife as well. • Fisher River Cree Nation requests that species important to Fisher River Cree Nation and other Indigenous and non-Indigenous communities are given the same level of attention that has been given to SAR wildlife. • Fisher River Cree Nation recommends that a program be offered to trappers and youth to build fisher and marten nesting boxes, position them at strategic locations throughout the LAA, and monitor and record their use on a scheduled basis. 				

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<p>Manitoba Infrastructure acknowledges that as per Fisher River Cree Nation's April 19, 2021 Letter, certain communications with Fisher River Cree Nation are to remain confidential.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program for the Project.</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.8</p> <p>Manitoba Infrastructure 2019b</p> <p>Fisher River Cree Nation 2018a</p> <p>FRCN 2018b</p> <p>FRCN 2018c</p> <p>FRCN 2018d</p> <p>FRCN 2020</p> <p>FRCN 2021</p> <p>FRCN 2021a.</p> <p>FRCN 2021c.</p> <p>FRCN 2021f</p> <p>FRCN 2021g</p> <p>FRCN 2021i</p> <p>FRCN 2022a</p> <p>FRCN 2022b</p> <p>FRCN 2022c</p> <p>FRCN 2022d</p> <p>FRCN 2022e</p>				
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u></p> <p>Fisher River Cree Nation reported harvesting: northern pike (jackfish), walleye (pickerel), lake whitefish.</p> <p>Fisher River Cree Nation reported subsistence and recreational fishing occur at Lake St. Martin, Dauphin River, Mantago River, and Sturgeon Bay year-round.</p> <p>Fisher River Cree Nation reported that fishing has always been an integral part of Fisher River life. Fish has always been an important resource for the Fisher River Cree Nation people, and in fact comprised a significant portion of their diet.</p>	<p><u>Species Identified by Fisher River Cree Nation:</u> northern pike (jackfish), walleye (pickerel), lake whitefish, sauger.</p> <p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, common carp, channel catfish, burbot, trout, perch.</p> <p><u>Locations:</u> Portions of Lake Winnipeg are within the PDA. Lake St. Martin is within the PDA. Sturgeon Bay and Watchorn Bay</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Fisher River Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and</p>	<p>Effects regarding sediments, debris and contamination are considered in the SWMP, SMP and Debris Management Plan. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Any storage and use of chemicals is strictly regulated and application of chemicals requires training and a permit. Sediments will be monitored, and visual inspections will be carried out as part of the SWMP and SMP and contingency mitigation measures such as silt fencing and materials to 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p>

**LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT
RESPONSE TO IAAC PUBLIC INFORMATION REQUESTS, ROUND 1**

Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
May 31, 2022

Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Fisher River Cree Nation reported fishing for northern pike, walleye, and lake whitefish as well as a variety of other important species.</p> <p>Fisher River Cree Nation reported that spring and fall were the best seasons for fishing, but it also occurred during the summer and winter.</p> <p>Fisher River Cree Nation reported fishing locations at Lake St. George, Lake St. Michael and Lake St. Patrick.</p> <p>Fisher River Cree Nation reported fishing extensively throughout the north basin of Lake Winnipeg and much of the south basin, particularly in the area where the Sandy Bar settlement once stood near the mouth of the Icelandic River. They also fished the numerous rivers flowing into and out of Lake Winnipeg, and all of the inland lakes including at Lake St. George, Lake St. Michael, Lake St. Patrick and Goldeye Lake.</p> <p>Fisher River Cree Nation indicated that the sharing of fish, is a time honoured tradition that continues today.</p> <p>Fisher River Cree Nation reported fishing grounds, fishing camps and fishing stations at the following locations: McBeth Point, Kinwow Bay, Lynx Bay, Commissioners Island, Clip Point, Sturgeon Bay, Mill Point, Long Island, Horse Island, Warren's Landing, Big Black River, Catfish Creek, Catfish Bay, Tamarack Island, Black Island, Grindstone, Hecla and Riverton areas, Thickfoot Creek, Thickfoot Point, Canoe Pass, Favel's Point, Moose Island, Goodman's Landing and Jackhead Island.</p> <p>Fisher River Cree Nation fish for walleye (pickerel) along Lake Winnipeg and have identified a spawning area at the south end of that lake.</p> <p>Fisher River Cree Nation reported that fish migration has changed and numbers of pickerel are down.</p> <p>Fisher River Cree Nation reported that increases debris and sediment make it difficult to fish.</p> <p>Fisher River Cree Nation reported that they can no longer drink lake water.</p> <p>Fisher River Cree Nation reported that the area of Lake Winnipeg out from Macbeth Point is one area where Fisher River Cree Nation harvesters fish for commercial and subsistence purposes and it is an area that was severely impacted by sediment and debris when the EOC operated in 2011 and 2014.</p> <p>Fisher River Cree Nation reported that the south basin of Lake St. Martin is very productive. Its tributaries provide nutrient rich waters that have resulted in abundant invertebrates and lake whitefish.</p> <p>Fisher River Cree Nation reported that when the commercial fishing industry established itself on Lake Winnipeg in the early</p>	<p>are within the PDA. Dauphin River is within the LAA. Mantago River is within the RAA. Kinwow Bay and Lynx Bay are outside of the RAA. Lake St. Andrews, Lake St. Michael, Lake St. Patrick, Lake St. George and Goldeye Lake are outside of the RAA. Fisher River and Fisher Bay are outside of the RAA. McBeth Point and Saskatchewan Point are outside of the RAA. The Sandy Bar Settlement at the mouth of the Icelandic River is outside of the RAA. Mill Point, Long Island, Horse Island, Black Island and Tamarack Island are outside of the RAA. Warren's Landing, Big Black River, Catfish Creek and Catfish Bay, are outside of the RAA. The Grindstone, Hecla and Riverton areas are outside of the RAA. Thickfoot Creek and Thickfoot Point are outside of the RAA. Canoe Pass, Favel's Point, Goodman's Landing, Moose Island and Jackhead Island are outside of the RAA. Kinwow Bay, Washow Bay, Fisher Bay Peninsula, Sugar Creek, Jackhead River, Lake St. George Lake, St. Andrew Lake, Lake St. Michael, Bloodvein River and McBeth Point are outside of the RAA.</p>	<p>fishing by Fisher River Cree Nation occur throughout the RAA and that species commonly understood to be caught by Indigenous peoples that occur within the RAA may be fished by Fisher River Cree Nation.</p> <p>During a flood event, water flows across the land and can pick up sediments that contain chemicals such as fertilizers, pesticides and other contaminants. Under current conditions, this material flows through the Fairford River and the Dauphin River during floods. The Project will reduce the amount of overland flooding and is therefore expected to reduce the amount of contamination entering Lake Winnipeg.</p> <p>Key conclusions are that the quantities of groundwater currently discharged into surface water features, including at observable artesian spring sites, are very small compared to surface water flow contributions. Changes in surface water flows due to changes in groundwater discharge due to the Project would be too small to practically measure or detect with hydrological monitoring (i.e., stream flow monitoring). Changes in seepage may be inferred by monitoring changes in groundwater levels (i.e., aquifer piezometric pressures) or potentially localized changes in vegetation. Monitoring of these features is the primary focus of proposed management plans.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to</p>	<p>minimize bank erosion will be used, where necessary.</p> <ul style="list-style-type: none"> The banks of the channel will be revegetated to reduce erosion. If required, at the start of operation, the water control structure gates can be gradually opened to control sediment levels, based on results of sediment monitoring. There will likely be increases in sediment concentrations at the end of the channel, but they will be managed to address water quality concerns through monitoring and flow adjustments. <p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive 	<p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 – Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Meetings were held with Fisher River Cree Nation on the following dates: April 28 2021, May 4, 2021, May 5, 2021, and May 6, 2021 to discuss the Environmental Management Plans. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to</p>

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<p>1900's, fishing also became an important source of income for the Fisher River Cree Nation people.</p> <p>Fisher River Cree Nation reported that the community has over 150 commercial fishing license holders. These fishers employ a large number of helpers from the community that in many cases include family members who are being taught and mentored by parents, grandparents or other Community Elders.</p> <p>Fisher River Cree Nation reported that that sustaining a healthy and accessible fishery in the above-mentioned areas is of critical importance to the Fisher River Cree Nation's continued exercise of their aboriginal and treaty rights, their economic condition and their safety.</p> <p>Fisher River Cree Nation reported that lake whitefish is the most important species in the Lake St. Martin commercial fishery and northern pike is the next most important commercial species.</p> <p>Fisher River Cree Nation reported that walleye have been underperforming in Lake St. Martin for decades; walleye is the most sensitive species in the lake due to overfishing.</p> <p>Fisher River Cree has reported that spring ice jams that pile up at the mouth of Fisher River.</p> <p>Fisher River Cree Nation reported that the waters of Sturgeon Bay are critical spawning areas.</p> <p>Fisher River Cree Nation reported that commercial fishing is a major livelihood for the community.</p> <p>Fisher River Cree Nation reported that they experienced 3+ years of hardship when the EOC was constructed including nets clogged with debris, silt and mud, changes in the fish spawning patterns, changes in currents, and dirty water.</p> <p>Fisher River Cree Nation reported that they noticed an increase buildup of moss and sediment on their nets impacting harvest yields.</p> <p>Fisher River Cree Nation reported that Fisher River Cree Nation is affected by what affects Lake Winnipeg. They have been there since time immemorial, and will be into the future.</p> <p>Fisher River Cree Nation reported that commercial fishers in the Sturgeon Bay and McBeth point areas noted distinct changes in currents and fish movement following the emergency channel operations in 2011 and 2014, compounded by the long-lasting sludge and sediment problems.</p> <p><u>Issues and Concerns:</u></p> <p>Fisher River Cree Nation is concerned that the Project will impact the fishing grounds at Lake Winnipeg, Sturgeon Bay and Kinnow Bay.</p>		<p>move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Saskatchewan Point, McBeth Point, Fisher Bay, Fisher River, while included in the RAA, were not included in the scope of the LAA for the Project, because the LAA is defined as the area where Project effects on water levels are not expected to be discernible in the context of existing water level variations in these areas. In addition, Project effects on water quality and fish populations are not expected to be measurable beyond Sturgeon Bay. This is consistent with the vegetation assessment (Volume 3, Section 8.2.4 of the EIS), which does not expect measurable effects on aquatic vegetation around the shorelines of the north basin of Lake Winnipeg due to changes in water levels.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p> <p>With respect to assessment of cumulative effects on Indigenous peoples, Volume 5, Sections 11.12 and 11.13 of the Project EIS describe the assessment of the effects as indicated in the</p>	<p>species will not change as the existing connections between waterbodies will remain post-Project.</p> <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted "in the dry" and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. • Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. 	<p>exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Fisher River Cree Nation were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for</p>

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<p>Fisher River Cree Nation reported that spawning grounds in Lake St. Andrews could be affected by the Project.</p> <p>Fisher River Cree Nation is concerned about whitefish being stranded during operation of the Emergency Channel.</p> <p>Fisher River Cree Nation expressed concerns regarding groundwater and surface water.</p> <p>Fisher River Cree Nation is concerned about AIS entering Lake Winnipeg.</p> <p>Fisher River Cree Nation is concerned with loss or alteration of fish habitat.</p> <p>Fisher River Cree Nation is concerned about fish mortality.</p> <p>Fisher River Cree Nation is concerned about changes in lake currents, excessive silting and debris in nets.</p> <p>Fisher River Cree Nation is concerned with water levels in Lake Winnipeg.</p> <p>Fisher River Cree Nation expressed concern that areas within their traditional fishing grounds have not been included in the scope of the LAA, including Saskatchewan Point, McBeth Point, Fisher Bay, Fisher River, and the northern half of the Sturgeon Bay.</p> <p>Fisher River Cree Nation is concerned about impacts on the viability of Fisher River Cree Nation's McBeth Point fishing station and expansion plans.</p> <p>Fisher River Cree Nation is concerned with cumulative impacts of development resulting in the loss of traditional lands and resources.</p> <p>Fisher River Cree Nation is concerned that excavation of wetlands, quarries, borrow pits, and ditches may impact groundwater, aquifers and residential wells.</p> <p>Fisher River Cree Nation reported that there is reduced economic activity due to changes in fishing catch rates.</p> <p>Fisher River Cree Nation is concerned that erosion and associated sediment transport will impact fishers operating out of McBeth Point.</p> <p>Fisher River Cree Nation is concerned that excavation and rock jetties may cause erosion problem along the east shore of Sturgeon Bay. Sediment and debris will then travel up Saskatchewan Point and into Fisher River Cree Nation fishing grounds. Sand will deposit beyond the extent of the jetties and impact Fisher River Cree Nation fishers.</p> <p>Fisher River Cree Nation is concerned about herbicides and other contaminants that may enter Lake Winnipeg.</p>		<p>request. There has been no new information that alters the conclusion that the cumulative effects on Indigenous peoples are not significant. The construction and operation of the Project, the purpose of which is the development of permanent flood mitigation for Lake Manitoba and Lake St. Martin, is to alleviate flooding effects around those lakes. The Project has a positive effect in the Interlake region through allowing the lake levels to be lowered in times of flood, thus decreasing flood risks around the lakes, reducing flood duration, and reducing adverse effects of unmitigated flooding experienced by Indigenous peoples.</p>	<ul style="list-style-type: none"> Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). 	<p>Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Fisher River Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>Fisher River Cree Nation is concerned about fish stranding and winter kill.</p> <p>Fisher River Cree reported that fish trapped within the outlet channels may be easily preyed upon by the larger predacious fish.</p> <p>Fisher River Cree is concerned about potential effects from drawdown of aquifers and how those will further affect groundwater and wetlands near the Fisher River Cree Nation, as well as around the Saint lakes, Kinwow Bay and Sturgeon Bay areas.</p> <p>Fisher River Cree Nation is concerned about invasive species, changes in spawning areas, and detrimental effects on water quality.</p> <p>Fisher River Cree Nation is concerned that increased siltation, plumes and biotic transfer is likely to occur and will be harmful to these spawning grounds.</p> <p>Fisher River Cree Nation is concerned about nutrient and chemical contamination.</p> <p>Fisher River Cree Nation is concerned about the potential effect of the Project on traditional Lake Winnipeg fishing grounds at Sturgeon Bay and Kinwow Bay and the potential effect on fishers who operate out of McBeth Point.</p> <p>Fisher River Cree Nation is concerned that LMOC will be conducive to erosion, debris, silt and downstream sedimentation due to sustained, long duration, consecutive high flow flood events.</p> <p>Fisher River Cree Nation is concerned that during high sustained flows, a vegetative channel cover will likely not be adequate in areas of sandy soils requiring rock armour protection.</p> <p>Fisher River Cree Nation is concerned that ice jamming at control structures, drop structures, and bridges could have a significant effect on reducing channel capacity, increased damage to infrastructure, potential over topping of channel banks causing overland runoff, potential effects on roads and increased erosion and sedimentation.</p> <p>Fisher River Cree Nation is concerned that spring operation will cause a sediment plume in the Sturgeon Bay area affecting spawning grounds due to sediment deposition on spawning substrate and migrating south to McBeth Point due to wind.</p> <p>Fisher River Cree Nation is concerned that rushing floodwaters at the outlet into Sturgeon Bay will result in sediment from disturbances of the lakebed and this will be further compounded by erosion along the shores of Sturgeon Bay as the rushing waters flood those shores.</p>			<p>Measures to avoid or reduce effects to commercial fishing are identified in the CEMP and include:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will engage with commercial fish harvesters, anglers, local resource users, and MSD Regional Officials to address potential conflict, disturbance, or access restrictions to fishing/harvesting areas in the PDA and LAA, and availability of fish resources. <p>Should the Project be approved, Manitoba Transportation and Infrastructure will be required to follow all conditions for approval</p> <p>Surface water quality and nutrient loading are discussed in IAAC-13, IAAC-14, IAAC-65, IAAC-84 and IAAC-107.</p> <p>The GWMP will establish thresholds and triggers for monitoring impacts to the groundwater, including water quality impacts.</p> <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	

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<p>Fisher River Cree Nation is concerned that the increase in Lake Winnipeg water level that will result when the channels are operating will cause erosion and sediment loading, at a minimum throughout Sturgeon Bay, McBeth Point and Kinwow Bay, Fisher Bay, and the Fisher River.</p> <p>Fisher River Cree Nation is concerned that the Project will result in a repeat of what fishers experienced in 2011-2014 in respect to sediment and sludge, fouling of their nets, disappearance of fish from their regular fishing grounds, and the financial losses incurred as a result.</p> <p>Fisher River Cree Nation is concerned that modelling does not consider the sediment from erosion caused by the high-volume flow from the channel to the east shore of Sturgeon Bay.</p> <p>Fisher River Cree Nation expressed concern that the disturbance of sediment from the bed of Sturgeon Bay at the LSMOC outlet has not been sufficiently considered.</p> <p>Fisher River Cree Nation is concerned about the effects of sediment will extend to the RAA, within which Fisher River Cree Nation's traditional fishing areas are and the potential repeat of the sediment and sludge problems that Fisher River Cree Nation experienced in 2011 to 2014.</p> <p>Fisher River Cree Nation is concerned that the channel operations may have a substantial impact on Lake Winnipeg water levels that will result in flooding and erosion in Fisher Bay and the Fisher River, which runs through the community.</p> <p>Fisher River Cree Nation is concerned about the health of Lake Winnipeg and the flow of nutrients, pesticides, and their harmful contaminants into Lake Winnipeg through the Project.</p> <p>Fisher River Cree Nation is concerned about any potential harm to their commercial fishing industry and their reliance on the fisheries for sustenance and livelihood.</p> <p>Fisher River Cree Nation is concerned about the water level capacity of the channels and the potential flooding of the surrounding lands.</p> <p>Fisher River Cree Nation is concerned about how much additional sediment will move out of Lake St. Martin and into LMSOC and ultimately Lake Winnipeg as well as the additional effects on fish and fish habitat.</p> <p>Fisher River Cree Nation is concerned with the potential for significant erosion in the excavated inlet from Lake St. Martin and the resulting sediment loading into the waters of the LSMOC and Lake Winnipeg.</p> <p>Fisher River Cree Nation is concerned with the potential impact to lake whitefish spawning if groundwater discharges are disrupted.</p>				

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<p>Fisher River Cree Nation is concerned about any potential concentration of methylmercury in Lake Winnipeg or other water bodies connected to the Project.</p> <p>Fisher River Cree Nation is concerned about the potential flow reduction to Reed Lake and Clear Lake as well as other lakes in the Birch Creek watershed and the potential environmental impacts.</p> <p>Fisher River Cree Nation is concerned about the current drought conditions in Manitoba and the impact Project flow reductions in Lake Winnipeg, Lake Manitoba, and their tributaries will have on surface water, groundwater, wetlands, and other environmental impacts.</p> <p>Fisher River Cree Nation is concerned about the reduced availability of harvested animal species in the LAA and RAA and MTI's suggestion that the impact to fishing as "negligible to low impact".</p> <p>Fisher River Cree Nation is concerned about the extent of dewatering and its potential effect on our fishery, wetlands, and potable wells.</p> <p>Fisher River Cree Nation that there has not been adequate assessment of the potential impacts of the Project on Lake Winnipeg under different environmental conditions. Fisher River Cree Nation noted it would be disastrous if Lake Winnipeg were to suffer irreversible flooding and erosion damages as a result of problems (originating for the most part in west/southwest Manitoba and Saskatchewan) being transferred into Lake Winnipeg by the Project.</p> <p>Fisher River Cree Nation is concerned about Dauphin River flow rate and the impacts on whitefish.</p> <p>Fisher River Cree Nation is concerned about nutrient loading in Lake Manitoba, Lake St. Martin, and Lake Winnipeg.</p> <p>Fisher River Cree Nation has concerns with potential erosion of the east shore of Sturgeon Bay and subsequent transport of sediment and debris into McBeth Point fishing grounds.</p> <p>Fisher River Cree Nation is concerned about the level of herbicides and pesticides such as glyphosate and 2-4-D in surface water.</p> <p>Fisher River Cree Nation is unconvinced that the volume of flood water entering Lake Winnipeg would be the same with or without the operation of the Project and therefore the Project on no effect on Lake St. Martin or Lake Winnipeg.</p> <p>Fisher River Cree Nation is concerned about the velocity of flood water flowing into Lake St. Martin causing more erosion, sedimentation, and transfer of nutrients and pesticides.</p> <p>Fisher River Cree Nation is concerned with the current state of the Lake Winnipeg south basin and Narrows as many Fisher</p>				

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<p>River Cree Nation members live, hunt and fish in those areas. Regardless of whether the Project nutrient and pesticide issues existed prior to the Project, it is incumbent on the provincial and federal governments to address the issue now that it has been highlighted as a concern.</p> <p>Fisher River Cree Nation is concerned about the nutrients on the agricultural lands that would be protected from flooding by the Project being transported to the lakes during the spring runoff from melting snow.</p> <p>Fisher River Cree Nation disputes that there will be significant reduction in methylmercury by reducing flooded lands and, as a result, the bioaccumulation of methylmercury in fish.</p> <p>Fisher River Cree Nation is concerned about the estimates of potential erosion and sediment accumulation.</p> <p>Fisher River Cree Nation is very concerned that the current levels of nutrients, pesticides, methylmercury etc. entering Lake Winnipeg has the potential to destroy the health of the lake, and the commercial fishery which sustains the 150 Fisher River Cree Nation commercial and sustenance fishers and the Fisher River Cree Nation community in general.</p> <p>Fisher River Cree Nation is concerned about the effect of groundwater dewatering on the wetlands and surface water quality, noting the dewatering will result in reduced groundwater discharge which will affect surface water and wetland ecosystems.</p> <p>Fisher River Cree Nation is concerned that the active depressurization during construction and the passive depressurization during operation, which will impact drawdowns or piezometric pressures, will affect adjacent wetlands as they are predominately controlled by precipitation and groundwater.</p> <p>Fisher River Cree Nation is concerned about the use of the fertilizer and the potential cumulative effect on Lake Winnipeg and the Lake Winnipeg fishery.</p> <p>Fisher River Cree Nation is concerned that depressurization of the aquifer will result in lower contribution of groundwater to fisheries habitat which will adversely impact the Lake St Martin fishery and ultimately the Lake Winnipeg fishery.</p> <p>Fisher River Cree Nation is concerned that the Project will in fact affect all of Lake Winnipeg. The assessment that Lake Winnipeg, Nelson River, Split Lake are well beyond the likely maximum spatial extent of Project effects appear to be based on their assessment that suspended sediment etc. that comes directly from the Project will dissipate as the water moves into Sturgeon Bay. Fisher River Cree Nation maintains that the effect on Lake Winnipeg currents and fish movements has not been adequately assessed.</p>				

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<p>Fisher River Cree Nation is concerned with the effect on the Mantagao River and fish habitat that can result from accretion of sediment north of the LSMOC groins.</p> <p>Fisher River Cree Nation is concerned that ice jamming and frazil ice blockage could elevate water levels on the south basin under high flow winter operation conditions.</p> <p>Fisher River Cree Nation remains concerned that impacts of the Project on surface water, groundwater and wetlands have not been fully quantified by Manitoba Transportation and Infrastructure and questions whether there any practical and effective mitigation measures that can be implemented.</p> <p>Fisher River Cree Nation is concerned that the risks to domestic groundwater supply appears to be significant whereas the proposed mitigation options appear to be impractical and costly.</p> <p>Fisher River Cree Nation is concerned that the Project will not protect the lands flooded by Lake St. Martin and Lake Manitoba in 2011 if the water levels rise by 1.2 and 1 ft, respectively.</p> <p>Fisher River Cree Nation is concerned is that the incremental impact of the increased flow through the LSMOC into Sturgeon Bay and Lake Winnipeg during high wind events has not been assessed.</p> <p>Fisher River Cree Nation is concerned about the nutrients, wastewater effluents, fertilizers, pesticides, animal waste and other contaminants that are entering Fairford River, Lake St. Martin, Dauphin River and Sturgeon Bay.</p> <p>Fisher River Cree Nation is concerned about the justification (water quality, depth, fish stocks, etc.) for excluding the south basin of Lake St. Martin for surface water effects assessment as Project operation will affect both basins.</p> <p>Fisher River Cree Nation is concerned about where the excessive nutrients, pesticides etc. found in the LMOC area are filtered out of the water system connecting that area to Sturgeon Bay.</p> <p>Fisher River Cree Nation is concerned that no flood rich analysis or assessment has been done for Lake Winnipeg.</p> <p>Fisher River Cree Nation is concerned about the effect on fish and fish habitat for Saskatchewan Point, McBeth Point, Fisher Bay, Fisher River, and the north half of Sturgeon Bay and that the Project will have adverse effects on Fisher River Cree Nation's ability to exercise Indigenous and treaty rights relative to the waterbodies as well as Fisher River Cree Nation's economic operation and initiatives, such as commercial fishing.</p> <p>Fisher River Cree Nation is concerned that instituting and enforcing a "no fishing" policy in the LAA for construction workers may impact Indigenous treaty and Aboriginal rights.</p>				

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<p>Fisher River Cree Nation is concerned with the impact to its food security and economic status that may result from potential impacts of the Project on fish, fish habitat, wildlife, wetlands, and water. Commercial fishing is the main economic driver for the Fisher River Cree Nation community: adverse effects to commercial fishing will result in financial hardships to families and potentially change a way of life that families have enjoyed for many generations. Other effects on Fisher River Cree Nation's country foods and clean water supply have evolved over many years through indiscriminate pesticide use in silviculture operations, hydro rights of way, etc. and excessive drainage systems that have resulted in contamination of the Fisher River and Lake Winnipeg from agricultural run-off containing harmful nutrients and pesticides.</p> <p>Fisher River Cree Nation is concerned about any threat of methylmercury affecting fish on Fisher River Cree's traditional land and water.</p> <p>Fisher River Cree Nation is concerned about the potential impact of aquifer depressurization on their community and the area between their community and the Project. Any loss or reduction of groundwater flow or quality would have a serious impact on Fisher River Cree Nation's aboriginal and treaty rights and their existing and planned economic development initiative.</p> <p><u>Recommendations made by Fisher River Cree Nation:</u></p> <ul style="list-style-type: none"> • Fisher River Cree Nation recommends the implementation of necessary controls to protect wetlands from drainage. • Fisher River Cree Nation recommends assessment and mitigation of the debris and contamination of Fisher River Cree Nation's fishing grounds resulting from the channel. • Fisher River Cree Nation recommends that Manitoba should implement all other mitigation measures recommended by CEA Agency. • Fisher River Cree Nation recommends compensation for the debris from the channel operation. • Fisher River Cree Nation recommends that Manitoba provide Fisher River Cree Nation commercial fishers with nets on the same basis as Manitoba provided fishers from other communities affected by the debris resulting from the outlet channel. • Fisher River Cree Nation recommends that Environmental Monitoring Plans should also include the adverse effects that sediment transport can cover spawning, feeding and rearing areas. 				

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<ul style="list-style-type: none"> Fisher River Cree Nation recommends that Environmental Monitoring Plans should include the adverse effects on commercial fishers and Indigenous rights holders who have established commercial fishing operations or traditional fishing grounds in impacted areas. Fisher River Cree Nation recommends that water quality monitoring be undertaken for sediment, nutrients, herbicides/pesticides and any other contaminants in the waters of Sturgeon Bay and Lake Winnipeg where Fisher River Cree Nation traditional fishing grounds are located. Fisher River Cree Nation recommends that water quality monitoring stations should be established on the East side of Sturgeon Bay. Fisher River Cree Nation extending water quality studies downstream and upstream. Fisher River Cree Nation recommends that monitoring be carried out for more than two years; ongoing monitor programs should be carried out from post construction up to the next time a flood event requires the channel to be operated and continued right through the next flood event. Fisher River Cree Nation recommends that the Project's environmental assessment areas be expanded to include, at a minimum, all of Sturgeon Bay, the areas of Lake Winnipeg around Saskatchewan Point, McBeth Point, and Fisher Bay. Fisher River Cree Nation recommends that they are be involved in the selection and monitoring of spawning allocations. Fisher River Cree Nation recommends that they are involved in the selection of wetland creation and enhancement Project locations. Fisher River Cree Nation recommends that the sampling stations on Lake Manitoba should be coming into the channel in Watchorn Bay and the Fairford River, as well as the outlet at Sturgeon Bay and Dauphin River. This would indicate any pollution in the system Fisher River Cree Nation recommends a continuation of the 2011 Lake Manitoba flood mitigation program and that a large-scale micro storage water retention incentive program be instituted to reverse the impacts of on farm drainage in the Assiniboine River basin, as an alternative to this Project. Fisher River Cree Nation recommends that Manitoba Infrastructure do further analysis of the flow of sediment and expand the LAA for all value pathways to include the areas north of Sturgeon Bay and east to include McBeth Point. 				

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<ul style="list-style-type: none"> • Fisher River Cree Nation recommends that comprehensive modelling and analyses be undertaken that also includes wind and wave action effects. • Fisher River Cree Nation recommends that effective monitoring and communication systems be in place with Fisher River Cree Nation fishers at McBeth Point when the channels are operating. • Fisher River Cree Nation recommends monitoring conditions with Fisher River Cree Nation for a minimum of two years following operation of the channels to determine if any sediment problems arise. • Fisher River Cree Nation recommends that, as Manitoba and Canada are co-funding the Project, both governments should require that this major issue be addressed as a condition of the environment license, and that both governments provide the additional funding required. • Fisher River Cree Nation recommends that mitigation programs must be implemented as part of the Project to address the issue of methylmercury regardless of whether concentrations increase or not as a result of the Project. • Fisher River Cree Nation recommends that groundwater monitoring continue for several years and that a plan be put in place for long term monitoring and engagement with all local communities to hear concerns and suggestions. • Fisher River Cree Nation supports the establishment of the Indigenous Environmental Management Committee. • Fisher River Cree Nation strongly recommends a more thorough assessment of the impacts on Lake Winnipeg water levels to determine how the project may contribute to flooding severity on the Fisher River and erosion on the shores of Fisher Bay under conditions similar to the 2011 flood. • Fisher River Cree Nation requests that the excessive nutrient and pesticide issues are addressed now that they have been identified and measured through the environmental sampling and testing programs. • Fisher River Cree Nation requests the opportunity to review and comment on the mitigation and monitoring measures relating to water quality. • Fisher River Cree Nation recommends that Manitoba Transportation and Infrastructure maintain regular communication with the fishers and undertake regular water quality testing in the McBeth Point area once the channels begin operating and whenever the emergency outlet channel is operated during the construction period. Based on impacts from the 2011 and 2014 flood events, it 				

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<p>is recommended that communication and testing continue for three years after a flood event.</p> <ul style="list-style-type: none"> • Fisher River Cree Nation recommends that additional options be considered that would address nutrient loading. • Fisher River Cree Nation requests that Chief and Council are kept informed regarding fish surveys and studies and their results from both agricultural fertilizer and cattle operations runoff. • Fisher River Cree Nation recommend that Fisher River Cree Nation is involved in monitoring plans. • Fisher River Cree Nation recommends monitoring continue for a longer period than two years post-commissioning as Fisher River Cree Nation fishers at McBeth Point experienced adverse impacts (e.g., sludge in nets) for several years following the 2011 flood. • Fisher River Cree Nation recommends that TSS monitoring be done during LSMOC commissioning operations and that monitoring programs remain in place for at least ten years. • Fisher River Cree Nation recommends that additional groundwater monitoring locations be established throughout the wetlands for a considerable distance from the LMOC and LSMOC rights-of-way. • Fisher River Cree Nation recommends that groundwater monitoring continue three times annually on a permanent basis in order to develop a comprehensive groundwater data base for the area, and more importantly, in order that groundwater problems can be quickly identified and addressed. Fisher River Cree Nation recommends that Manitoba Transportation and Infrastructure’s modelling parameters include the impact of various wind speeds and directions on flooding, erosion, and sediment loading in Sturgeon Bay, Fisher Bay, Fisher River, and the north and south basins of Lake Winnipeg. • Fisher River Cree Nation requests that the RAA include the Portage Diversion as the Project will affect operating guidelines for the Portage Diversion, which in turn affects water levels on the Assiniboine River, operation of Shellmouth Dam, etc. • Fisher River Cree Nation recommends that the remaining sources or causes of mercury be mitigated as part of this Project. • Fisher River Cree Nation requests to be informed of any invasive species identified through the various water, fish and benthic aquatic invertebrate monitoring programs, and fish salvages, as the Fisher River community relies heavily on Lake Winnipeg fishery for sustenance and income. 				

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<ul style="list-style-type: none"> • Fisher River Cree Nation requests that any monitoring results that show the presence of sturgeon in Sturgeon Bay be shared. • Fisher River Cree Nation recommends that much more intensive fisheries research take place and that Fisher River Cree Nation and other Indigenous groups be kept informed and involved. • Fisher River Cree Nation requests that they are kept informed as fish and fish habitat options are developed and monitoring plans implemented, as well as contacted regarding training and jobs related to monitoring programs. • Fisher River Cree Nation would like to re-emphasize the value of the Fisher River dredging proposal to enhancing fish habitat, fish movement and spawning, along with the importance of a hazard free, openly navigable river for Fisher River Cree Nation and other communities to travel to their fishing and hunting grounds. It is also extremely important to Fisher River Cree Nation Elders as it is the route to their cultural camp at Boiler Bay which is located on the east side of Fisher Bay. • Fisher River Cree Nation recommends that the adaptive management strategy include monitoring groundwater levels and artesian spring sites within the wetlands rather than monitoring only wells in the community. <p>Manitoba Infrastructure acknowledges that as per Fisher River Cree Nation's April 19, 2021 Letter, certain communications with Fisher River Cree Nation are to remain confidential (FRCN 2021).</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Engagement Program for the Project.</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.8</p> <p>Golder Associates 2018</p> <p>Manitoba Infrastructure 2019b</p> <p>FRCN 2018</p> <p>FRCN 2018c</p> <p>FRCN 2018d</p> <p>FRCN 2020</p> <p>FRCN 2021</p> <p>FRCN 2021a</p> <p>FRCN 2021c</p> <p>FRCN 2021d</p>				

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FRCN 2021e FRCN 2021i FRCN 2022a FRCN 2022b FRCN 2022d FRCN 2022e Eng-Tech Consulting Ltd. 2020				
Plants and Plant Harvesting				
<p><u>Existing Conditions:</u></p> <p>Fisher River Cree Nation indicated that the flooding of Lake St. Martin has resulted in impacts to the harvest of medicinal herbs and plants.</p> <p>Fisher River Cree Nation reported that wild rice was an important food for many Indigenous groups, including the Fisher River Cree Nation, and has been harvested by Indigenous people for centuries.</p> <p>Fisher River Cree Nation reported that an important gathering area is the Ramsay's Point area east of the Fisher River Cree Nation Reserve on the shores of Lake Winnipeg.</p> <p>Fisher River Cree nation reported that there were many from the community that picked muskeg tea, Seneca root and mossberries along what is now called the Fish Road. The Fish Road was built following the historic trail from Fisher River to Washow Bay and Riverton.</p> <p>Fisher River Cree Nation reported that they picked medicines at Long Point.</p> <p>Fisher River Cree Nation reported that they picked wild rice on Jackhead River and the many lakes off the river. Fisher River Cree Nation Elders reported picking wild rice at Goldeye Lake and Moose Lake.</p> <p>Fisher River Cree Nation reported that birch was used for canoes and sleighs, grey willow for snowshoes, and willow for beaver hoops. Red willow and different kinds of wood are used for smoking fish and meat. Teepee poles were made with tamarack and log cabins were chinked with moss.</p> <p>Fisher River Cree Nation noted that balsam needles and the inside bark and gum were used for medicine.</p> <p>Fisher River Cree Nation stated that pesticides or herbicides, particularly those containing glyphosate or other harmful chemicals should not be used for weed control as their use can be harmful to the whip-poor-will and other wildlife.</p>	<p><u>Species Identified by Fisher River Cree Nation:</u> chokecherry, cranberry, Saskatoon berry, western snowberry, prickly rose, beaked hazel, willow Wee-case (wihkes), mossberry, Seneca root, muskeg tea, balsam fir, willow, red willow, birch, tamarack, moss, wild rice.</p> <p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u>, yarrow, Manitoba maple, giant hyssop, baneberry, speckled alder, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugle-weed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, logan</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Fisher River Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Fisher River Cree Nation occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Fisher River Cree Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7). As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided</p>

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<p>FRCN reported that cranberries, chokecherries and Saskatoons are important food sources of berries for community members as well as wildlife and should be replaced if destroyed by construction rather than re-seeded with grass.</p> <p>Fisher River Cree Nation reported that they hold a timber allocation that allows Fisher River Cree Nation to have timber in areas affected by the Project.</p> <p>Fisher River Cree Nation noted that, based on their traditional knowledge, groundwater plays an important role in charging peat bogs and thus is a critical component of a peat bog ecosystem.</p> <p>Fisher River Cree Nation reported that wetlands are intricately connected to migratory waterfowl and virtually all species of wildlife, and Indigenous medicine plants, all of which are of significant cultural importance to Fisher River Cree Nation.</p> <p><u>Issues and Concerns:</u></p> <p>Fisher River Cree Nation has concerns regarding disturbance to important gathering resources such as plant species of cultural, spiritual, and medicinal importance through the Project construction and operation and presence of permanent structures.</p> <p>Fisher River Cree Nation is concerned that the destruction of such a vast area of pristine boreal forest, wetlands and peatlands may have far reaching environmental effects impacting rights.</p> <p>Fisher River Cree Nation has concerns regarding the use of chemicals, particularly glyphosate for weed management.</p> <p>Fisher River Cree Nation is concerned with cumulative impacts of development resulting in the loss of traditional lands and resources.</p> <p>Fisher River Cree Nation is concerned that the removal of wetlands and organic lands will result in substantial greenhouse gas release into the environment as well as loss of greenhouse gas sequestration.</p> <p>Fisher River Cree Nation is concerned about disturbance to important gathering resources such as plant species of cultural, spiritual, and medicinal importance through the Project construction and operation and presence of permanent structures.</p> <p>Fisher River Cree Nation is concerned reduced access to important gathering resources such as plant species of cultural, spiritual, and medicinal importance due to permanent structures bisecting the landscape.</p> <p>Fisher River Cree Nation is concerned about the future ability for Fisher River Cree Nation harvesters to harvest in the Project area.</p>	<p>berry, downy arrowwood, wild grapes.</p> <p><u>Locations:</u></p> <p><u>The Fish Road (historic trail from Fisher River to Washow Bay is outside of the RAA. Riverton, Long Point, the Jackhead River, Goldeye Lake, Moose Lake and Ramsay's Point are located outside of the RAA.</u></p>	<p>LAA).With respect to assessment of cumulative effects on Indigenous peoples, Volume 5, Sections 11.12 and 11.13 of the Project EIS describe the assessment of the effects as indicated in the request. There has been no new information that alters the conclusion that the cumulative effects on Indigenous peoples are not significant. The construction and operation of the Project, the purpose of which is the development of permanent flood mitigation for Lake Manitoba and Lake St. Martin, is to alleviate flooding effects around those lakes. The Project has a positive effect in the Interlake region through allowing the lake levels to be lowered in times of flood, thus decreasing flood risks around the lakes, reducing flood duration, and reducing adverse effects of unmitigated flooding experienced by Indigenous peoples.</p>	<p>habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2).</p> <ul style="list-style-type: none"> Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><u>Residual Effects after Mitigation:</u> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not</p>	<p>in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Meetings were held with Fisher River Cree Nation on the following dates: April 28 2021, May 4, 2021, May 5, 2021, and May 6, 2021 to discuss the Environmental Management Plans. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Fisher River Cree Nation were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to</p>

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<p>Fisher River Cree Nation is concerned that wetland compensation money paid by Manitoba Transportation and Infrastructure may flow through to non-government organization.</p> <p>Fisher River Cree Nation is concerned about reduced water flow into the Birch Creek wetlands system which is located beyond the 500m assessment perpendicular distance limit.</p> <p>Fisher River Cree Nation is concerned about how the water flow monitoring system will reconcile current results in drought conditions against prior normal years of high-water levels and flows which have not been measured for the Buffalo Lake wetlands ecosystem.</p> <p>Fisher River Cree Nation is concerned about the impacts to the Birch Creek wetlands due to dewatering of the aquifer.</p> <p>Fisher River Cree Nation is concerned that peat bogs and marches are not subject to compensation.</p> <p>Fisher River Cree Nation is concerned that there may be too many variables affecting vegetation health to rely on remote sensing data in assessing hydrologic and drainage conditions.</p> <p>Fisher River Cree Nation is concerned about the reduced availability of harvested plant species in the LAA and RAA and MTI's suggestion that the impact to harvesting as "negligible to low impact".</p> <p>Fisher River Cree Nation is concerned about the adverse effects on species most important to gatherers such as wetland medicine plants, Wee-case (wihkes), and muskeg tea.</p> <p>Fisher River Cree Nation is concerned that the basis of the vegetation assessment was flawed and that all subsequent assessments will be invalid.</p> <p>Fisher River Cree Nation is concerned that the role and influence of groundwater springs and seepage in maintaining healthy wetland ecosystems is unknown and therefore the effects of dewatering could be significant, particularly in periods of drought conditions and low water levels on lakes, rivers, streams that has been experienced.</p> <p>Fisher River Cree Nation is concerned about the amount of habitat altered for different types of habitats such as wetland browsing area, calving area, black spruce peatland.</p> <p>Fisher River Cree Nation is concerned about the potential of fire from the dry peat where areas have been cleared as well as stockpile of peat.</p> <p>Fisher River Cree Nation is concerned with the impact to its food security and economic status that may result from potential impacts of the Project on fish, fish habitat, wildlife, wetlands, and water. Other Fisher River Cree Nation commercial enterprises at risk include their forest operations</p>			<p>result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Fisher River Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>(timber harvest, other forestry-related initiatives in the planning stage). Fisher River Cree Nation's food security and sovereignty has already been severely affected by decisions of government, which include the recent moose hunting closure, night hunting ban, and licensing of peat harvesting operations near the community. Other effects on Fisher River Cree Nation's country foods and clean water supply have evolved over many years through indiscriminate pesticide use in silviculture operations, hydro rights of way, etc. and excessive drainage systems that have resulted in contamination of the Fisher River and Lake Winnipeg from agricultural run-off containing harmful nutrients and pesticides.</p> <p>Fisher River Cree Nation is concerned that the proposed vegetation management plan will result in pesticides containing glyphosate and POEA entering wetlands and Lake Winnipeg. This will be harmful or fatal to fish, aquatic organism, and non-target plants and medicines along the channels.</p> <p>Fisher River Cree Nation is concerned that the proposed herbicides/pesticides can be safely used without contaminating surface water.</p> <p><u>Recommendations made by Fisher River Cree Nation:</u></p> <ul style="list-style-type: none"> • Fisher River Cree Nation recommends planting tall growing trees such as spruce, birch and poplar to provide shelter, habitat and protection for wildlife. • Fisher River Cree Nation recommends that detailed information be provided on wetland loss or alteration compensation amounts, and opportunities for Indigenous groups to enter into contracts for creation of new wetlands or enhancement of existing wetlands. • Fisher River Cree Nation recommends that Fisher River Cree Nation be involved in all wetland compensation funding decisions as well as identifying and selecting wetland and fish habitat offset projects. • Fisher River Cree Nation recommends field assessments for assessing hydrologic and drainage conditions and impacts to vegetation. • Fisher River Cree Nation supports the establishment of the Indigenous Environmental Management Committee. • Fisher River Cree Nation recommends the revegetation planning to investigate trees or other means of creating cover along the channel berms. • Fisher River Cree Nation recommends other non-chemical vegetation management methods and product be investigated. 				

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<ul style="list-style-type: none"> • Fisher River Cree Nation requests that they are informed about activities related to the studies, assessments, and mitigation measures concerning wetlands. • Fisher River Cree Nation requests that no net loss of wetlands be a fundamental requirement of the Project. • Fisher River Cree Nation recommends a fire truck and equipment storage facility on site as well as special restrictions in place around high-risk areas for fires. • Fisher River Cree Nation recommends that no herbicides or pesticides be used that contain glyphosate or POEA which are known to be harmful to fish, aquatics, wildlife and humans. Restrictions should apply to any other environmentally harmful product, regardless of whether it has been approved by Health Canada as safe application instructions are frequently ignored by users, as is evident based on the excessive amounts of nutrients and pesticides entering Lake Winnipeg via its tributaries on a daily basis. • Fisher River Cree Nation requests being involved in the discussions on wetland compensation and that the discussion could be through the Environmental Advisory Committee. • Fisher River Cree Nation recommends that consultation on which locations with rare medicines need to be protected needs to be completed on an individual community basis under strict protocols. <p>Manitoba Infrastructure acknowledges that as per Fisher River Cree Nation's April 19, 2021 Letter, certain communications with Fisher River Cree Nation are to remain confidential (FRCN 2021).</p> <p><u>Sources:</u></p> <p>Indigenous Engagement Program for the Project.</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.8</p> <p>Manitoba Infrastructure 2019a</p> <p>FRCN 2018</p> <p>FRCN 2018d</p> <p>FRCN 2021</p> <p>FRCN 2021c</p> <p>FRCN 2021g</p> <p>FRCN 2021i</p> <p>FRCN 2022a</p>				

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<p>FRCN 2022b FRCN 2022c FRCN 2022d FRCN 2022e Eng-Tech Consulting Ltd. 2020.</p>				
Travel Routes				
<p><u>Existing Conditions:</u></p> <p>Fisher River Cree Nation reported that a ridge that runs beside the Project area was historically a travel corridor.</p> <p>Fisher River Cree Nation reported muskeg tea, Seneca root and mossberries are harvested along what is now called the Fish Road. The Fish Road was built following the historic trail from Fisher River to Washow Bay and Riverton.</p> <p>Fisher River Cree Nation reported that people travelled by York Boats from Norway House. There were established camping sites at several locations along the east shore between Norway House and the Black Island.</p> <p>Fisher River Cree Nation reported that there is an old trail that goes from Boiler Bay across Ebb and Flow and through to Biscuit Harbour. This trail has been there for as long as anyone can remember, and is still used for hunting and trapping</p> <p>Fisher River Cree Nation reported that the Fisher River Trail was established by the Fisher River people and was much used by them on their trips to and from Riverton where they went to work or buy goods. In the winter they used dog sleds for trapping and winter fishing, and when travelling to other communities such as Hodgson, Arborg or Riverton, they would walk or use horses or oxen.</p> <p><u>Issues and Concerns:</u></p> <p>Fisher River Cree Nation expressed concerns regarding Lake St. Martin Access Road Project including, the road's location, whether or not it will be gated, and potential for impacts to road maintenance.</p> <p>Fisher River Cree Nation is concerned about reduced access to important gathering resources such as plant species of cultural, spiritual, and medicinal importance due to permanent structures bisecting the landscape.</p> <p>Fisher River Cree Nation is concerned that quarry sites will be ecologically harmful.</p> <p><u>Recommendations made by Fisher River Cree Nation:</u></p> <ul style="list-style-type: none"> Fisher River Cree Nation reported that the ridge that runs beside the Project Area is a historic travel corridor and 	<p><u>Locations:</u> The Fish Road (historic trail from Fisher River to Washow Bay) is outside of the RAA. Riverton, Long Point, the Jackhead River, Goldeye Lake, Moose Lake and Ramsay's Point are located outside of the RAA. Norway House and the Black Island are outside of the RAA. Boiler Bay and Biscuit Harbour are outside of the RAA. Riverton, Arborg and Hodgson are outside of the RAA. .</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by Dauphin River Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by Dauphin River Northern Affairs Community to occur within the RAA.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Fisher River Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of travel routes by Fisher River Cree Nation occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Fisher River Cree Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. 	<p>The success of mitigation for travel routes will be monitored through the EMPs These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Meetings were held with Fisher River Cree Nation on the following dates: April 28 2021, May 4, 2021, May 5, 2021, and May 6, 2021 to discuss the Environmental Management Plans. In addition, due to</p>

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<p>Fisher River Cree Nation recommends that this issue is addressed.</p> <ul style="list-style-type: none"> Fisher River Cree Nation recommends that as an accommodation measure, Manitoba should fix Sisterline Road. Fisher River Cree Nation recommends the building a bridge from PR 513 or access the site from Dauphin River First Nation. Fisher River Cree Nation recommends that Manitoba implement all other mitigation measures recommended by CEA Agency (now IAAC). Fisher River Cree Nation recommends the repair of Sisterline Road, which Fisher River Cree Nation uses to exit the community. <p>Manitoba Infrastructure acknowledges that as per Fisher River Cree Nation's April 19, 2021 Letter, certain communications with Fisher River Cree Nation are to remain confidential.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program for the Project.</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.8</p> <p>Manitoba Infrastructure 2019a</p> <p>FRCN2020</p> <p>FRCN 2021</p> <p>FRCN 2021a</p> <p>FRCN 2021i</p>		<p>completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p>Should the Project be approved, Manitoba Transportation and Infrastructure will be required to follow all conditions for approval</p> <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered</p>	<p>limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Fisher River Cree Nation were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups</p>

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				<p>have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Fisher River Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p><u>Existing Conditions:</u></p> <p>Fisher River Cree Nation reported that the Project will contribute to an altered cultural experience due to noise, dust and light pollution associated with Project construction and operation and the presence of permanent structures.</p> <p>Fisher River Cree Nation reported that members travel to Lake St. Martin for events, activities and ceremonies.</p> <p>Fisher River Cree Nation reported that a ridge that runs beside the Project area was a historically a travel corridor.</p> <p>Fisher River Cree Nation reported that Birch Point was the location of the Brown and Rutherford sawmill and there was a sizable settlement there from the time the mill was established in 1926/27 until it was destroyed by fire.</p> <p>Fisher River Cree Nation reported that Sandy Bar was an important settlement. When it was visited by Missionary James Settee, he observed 24 families residing there. In 1876, a smallpox epidemic decimated the population. The village was ordered burned to prevent further infection; however, shortly thereafter Dominion Land Surveyors arrived to survey a town site for the Icelandic immigrants.</p> <p>Fisher River Cree Nation noted that there established camping sites at several locations along the east shore between Norway House and Black Island.</p>	<p><u>Locations:</u> Lake St. Martin is within the PDA. Fisher Bay is outside of the RAA. Watchorn Provincial Park is within the LAA. The Wanipigow River is outside of the RAA. Black Island land claim is outside of the RAA. Birch Point and Sandy Bar are outside of the RAA. Norway House and Black Island are outside of the RAA. Boiler Bay and Moose Island are outside of the RAA. Jackhead Bridge is outside of the RAA. Jackhead, Dog Head Point, Dog Head, and Berens River are outside of the RAA. Spider Island, West Doghead, Birch Point, Matheson Island, Riverton (along the Icelandic River), Loon Straits (along Loon River), Washow Bay (by Washow River) are outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about location of habitation, cultural and spiritual sites and areas identified by Fisher River Cree Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Fisher River Cree Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation,</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. 	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated</p>

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<p>Fisher River Cree Nation noted that there were camps at Boiler Bay and on Moose Island.</p> <p>Fisher River Cree Nation described Teakettle Rock, which was a huge flat rock along an old trail on the south side of the river where Jackhead Bridge is now. It was a stopping place to have tea on the way to Riverton and was also a camping spot. It had lots of oak trees that were taken down when they built the bridge.</p> <p>Fisher River Cree Nation reported ceremonies being held at Jackhead, Dog Head Point, Black Island and Berens River.</p> <p>Fisher River Cree Nation Elder reported hearing about rock paintings at East Doghead and had also seen rock paintings at a place along the Jackhead Road.</p> <p>Fisher River Cree Nation Elders recalled several locations where Fisher River people had been buried and reported that back in those days people were often buried wherever the families were camping or living when someone died. Some of these locations are: Spiders Island, West Doghead, Birch Point, Matheson Island, Riverton (along the Icelandic River), Loon Straits (along Loon River), Washow Bay (by Washow River)</p> <p><u>Issues and Concerns:</u></p> <p>Fisher River Cree Nation is concerned about loss, damage, or disturbance of areas of cultural, historical, archaeological, paleontological, or architectural significance through Project-related disturbance.</p> <p>Fisher River Cree Nation is concerned with reduced or altered ability to transmit knowledge or cultural practices due to changes in landscape and traditional resources.</p> <p>Fisher River Cree Nation is concerned that the channels will result in diminished recreational value of the Watchorn Provincial Park.</p> <p>Fisher River Cree Nation is concerned about the increased risk of flooding on the Fisher River, and at cottage development and youth camps on Fisher Bay.</p> <p>Fisher River Cree Nation is concerned about effects on waterfront ceremonial sites, including Black Island land claim/Wanipigow River.</p> <p>Fisher River Cree Nation is concerned with the current state of the Lake Winnipeg south basin and Narrows as many Fisher River Cree Nation members live, hunt and fish in those areas. Regardless of whether the Project nutrient and pesticide issues existed prior to the Project, it is incumbent on the provincial and federal governments to address the issue now that it has been highlighted as a concern.</p> <p>Fisher River Cree Nation's main concern is the potential flood risk and other impacts to Fisher River Cree Nation and other</p>		<p>cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p>Should the Project be approved, Manitoba Transportation and Infrastructure will be required to follow all conditions for approval.</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>(Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Meetings were held with Fisher River Cree Nation on the following dates: April 28 2021, May 4, 2021, May 5, 2021, and May 6, 2021 to discuss the Environmental Management Plans and invitations to meet and discuss the plans are ongoing and have occurred with some Indigenous groups. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Fisher River Cree Nation were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Lake Winnipeg communities due to Project operation during high wind events.</p> <p><u>Recommendations made by Fisher River Cree Nation:</u></p> <ul style="list-style-type: none"> Fisher River Cree Nation recommends that Manitoba implement all other mitigation measures recommended by CEA Agency. Fisher River Cree Nation recommends that the ridge that runs beside the Project area be addressed, as it is a historic travel corridor. Fisher River Cree Nation recommends that potential work camps area should be identified, and Indigenous groups are consulted by the Crown. Fisher River Cree Nation recommends that consultation with individual First Nation communities is completed to determine the types, locations, and occasions of ceremonies. <p>Manitoba Infrastructure acknowledges that as per Fisher River Cree Nation's April 19, 2021 Letter, certain communications with Fisher River Cree Nation are to remain confidential.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program for the Project.</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.8</p> <p>FRCN 2020</p> <p>FRCN 2021</p> <p>FRCN 2018d</p> <p>FRCN 2018e</p> <p>FRCN 2021i</p> <p>FRCN 2022b</p> <p>FRCN 2022d</p> <p>FRCN 2022e</p>				<p>Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Fisher River Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Fox Lake Cree Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u> Through a review of publicly available literature, Fox Lake Cree Nation have reported hunting or trapping deer, elk caribou, rabbit, marten, fisher, river otter, beaver, muskrat, geese, bear and ducks, lynx, wolverine, fox, prairie chicken, partridge Fox Lake Cree Nation has reported trapping and hunting at the Red Deer River, Overflowing River, Duck Bay, Pine Creek, Pelican Rapids and Dawson Bay. <u>Issues and Concerns:</u> Fox Lake Cree Nation is concerned about beaver population decline and displacement localized areas along the lower Nelson River due to flooding and unnatural annual water fluctuations. Fox Lake Cree Nation is concerned about changes in moose distribution and habitat loss caused by flooding. flooding. <u>Sources:</u> Manitoba Hydro 2011 Manitoba Hydro n.d.</p>	<p><u>Species Identified by Fox Lake Cree Nation:</u> moose, deer, elk caribou, rabbit, marten, fisher, river otter, beaver, muskrat, geese, bear, ducks, lynx, wolverine, fox, prairie chicken and partridge <u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> coyote, wolf, short-tailed weasel, long-tailed weasel, mink, squirrel, mallard, ruffed grouse, sharp-tailed grouse, bald eagle. <u>Locations:</u> Red Deer River, Overflowing River, Duck Bay, Pine Creek, Pelican Rapids and Dawson Bay are located outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use. Manitoba Infrastructure acknowledges that the information about hunting and trapping by Fox Lake Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Fox Lake Cree Nation occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Fox Lake Cree Nation. While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively. The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA. Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances. Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas. In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project. For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component. During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups. Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7). As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups</p>

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		<p>LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>ROW and not extend beyond the PDA (Chapter 8, Section 8.2).</p> <ul style="list-style-type: none"> Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Fox Lake Cree Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling</p>

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				<p>and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE R, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Fox Lake Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u></p> <p>Through a review of publicly available literature, Fox Lake Cree Nation have reported fishing pickerel (walleye), jackfish, sucker, catfish, carp, brook trout and whitefish.</p> <p>Fox Lake Cree Nation reported fishing locations at Red Deer Lake, Red Deer River, Lake Winnipegosis, Dauphin Lake, Duck Bay and Whitemud River.</p> <p>Fox Lake Cree Nation reported that fishing is an important activity and is relied upon for diet, as well as for economic benefit.</p> <p><u>Issues and Concerns:</u></p> <p>Fox Lake Cree Nation is concerned the Project will bring invasive species and agricultural contaminants.</p> <p>Fox Lake Cree Nation is concerned about zebra mussels.</p> <p>Fox Lake Cree Nation is concerned about the water flow into Lake Winnipeg and eventually reaching the Fox Lake community from the Nelson River and the potential effects these waters would have on the community.</p> <p><u>Sources:</u></p> <p>Manitoba Hydro 2011</p> <p>Manitoba Hydro n.d.</p> <p>Manitoba Infrastructure Indigenous Engagement Program for the Project</p>	<p><u>Species Identified by Fox Lake Cree Nation:</u> pickerel, jackfish (northern pike), sucker, catfish, carp, whitefish, brook trout.</p> <p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, burbot, trout, perch, sauger.</p> <p><u>Locations:</u> Portions of Lake Winnipeg are in the PDA, Red Deer Lake, Red Deer River, Lake Winnipegosis, Dauphin Lake, Duck Bay, Whitemud River and Nelson River are outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Fox Lake Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Fox Lake Cree Nation occur throughout the RAA and that species commonly understood to be caught by Indigenous peoples that occur within the RAA may be fished by Fox Lake Cree Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish and fishing the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel</p>

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		<p>Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<ul style="list-style-type: none"> • Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. • Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted "in the dry" and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. 	<p>routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Fox Lake Cree Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating</p>

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			<ul style="list-style-type: none"> • Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). • To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> • Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route 	<p>opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Fox Lake Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate</p>

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			<p>comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered.</p> <ul style="list-style-type: none"> Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	
Plants and Plant Harvesting				
<p><u>Existing Conditions</u></p> <p>Through a review of publicly available literature, Fox Lake Cree Nation has reported harvesting blueberry, cloud berry, highbush cranberry, raspberry, strawberry, sweetgrass, Labrador tea, sage red willow, Seneca root, mint, pin cherry, bog bilberry.</p> <p>Fox Lake Cree Nation has reported harvesting locations at Overflow Bay, Pine Creek, Dawson Bay, Camperville, Duck Bay and the Red Deer River.</p> <p><u>Sources:</u></p> <p>Manitoba Hydro 2011</p>	<p><u>Plant species Identified by Fox Lake Cree Nation:</u> blueberry, highbush cranberry, raspberry, strawberry, sweetgrass, Labrador tea, sage, red willow, Seneca root, mint, pin cherry, bog bilberry.</p> <p><u>Other plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugle-weed, Canada mayflower, morel, yellow evening primrose, jackpine, balsam poplar, rattlesnake root, self-heal, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry,</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Fox Lake Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Fox Lake Cree Nation occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Fox Lake Cree Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that</p>

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	<p>dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, dwarf blueberry, bog blueberry, cranberry, logan berry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> Overflow Bay, Pine Creek, Dawson Bay, Camperville, Duck Bay and the Red Deer River are outside of the RAA.</p>	<p>ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<ul style="list-style-type: none"> • The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration • As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). • Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. • The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). 	<p>supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Fox Lake Cree Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with</p>

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			<ul style="list-style-type: none"> The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Fox Lake Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p>Through a review of publicly available literature, Fox Lake Cree Nation has reported historic wagon trails by Pine Creek.</p> <p><u>Sources:</u> Manitoba Hydro 2011</p>	<p><u>Locations:</u> Pine Creek is outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Fox Lake Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of travel routes by Fox Lake Cree Nation occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Fox Lake Cree Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 -</p>

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		<p>to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting</p>	<p>describes specific measures to facilitate proper access during the construction of the Project.</p> <ul style="list-style-type: none"> The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed at specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged in the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Fox Lake Cree Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating</p>

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		<p>upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>		<p>opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Fox Lake Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Habitation, Cultural and Spiritual Sites				
<p>Through a review of publicly available literature, Fox Lake Cree Nation has reported that burials were found on the Red Deer River in the past.</p> <p><u>Sources:</u> Manitoba Hydro 2011</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about location of habitation, cultural and spiritual sites and areas identified by Fox Lake Cree Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Fox Lake Cree Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Apart from the two known cemeteries, no burials or unmarked graves have been identified or reported in the RAA. Protocols for chance encounters of archaeological resources during site preparation and construction,</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, effects on cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Fox Lake Cree Nation to date.</p>

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		<p>described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>		<p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p>

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<p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Fox Lake Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>				
<p>Hollow Water First Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u> Hollow Water First Nation has reported hunting and trapping deer, moose, rabbits, geese, otter, marten, fisher, muskrat, lynx, fox, beaver, bobcat, porcupine, coyote, chipmunk, buffalo, duck. Hollow Water First Nation reported that Black and Deer Islands in Lake Winnipeg are important for hunting and trapping. Hollow Water First Nation reported that there used to be muskrats, beaver, ducks and all types on wildlife in the river, but now you don't see it because the river is contaminated. Hollow Water First Nation reported that there used to be good muskrat trapping on Patricia Beach. Hollow Water First Nation reported that there is no more trapping at Folster Lake and that the lake is oily. Hollow Water First Nation reported that ground water seeps near the southern shores of the south basin of Lake St. Martin maintain critical wildlife habitat.</p> <p><u>Issues and Concerns:</u> Hollow Water First Nation have general wildlife concerns that include invasive species. Hollow Water First Nation are concerned that water levels may affect furbearers. Hollow River First Nation is concerned that effects of the Project on Buffalo Lake, Buffalo Creek and adjacent wetlands will affect wildlife habitat Hollow River First Nation is concerned that the channels will provide no wildlife passage in the east or west directions in the summer as both channels will be full of water. They are also</p>	<p><u>Species identified by Hollow Water Nation:</u> deer, moose, rabbit, geese, otter, marten, fisher, muskrat, lynx, fox, beaver, bobcat, porcupine, coyote, chipmunk, buffalo, duck. <u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> elk, black bear, wolf, wolverine, short-tailed weasel, long-tailed weasel, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge. <u>Locations:</u> Lake St. Martin is in the PDA. Buffalo Creek and Lake are in the PDA. Birch Creek is in the LAA. Black Island and Deer Island in Lake Winnipeg are outside of the RAA. Patricia Beach, Folster Lake and the Winnipeg River are outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use. Manitoba Infrastructure acknowledges that the information about hunting and trapping by Hollow Water First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Hollow Water First Nation occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Hollow Water First Nation While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively. The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA. Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project. For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component. During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups. Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated</p>

**LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT
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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
May 31, 2022

Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>concerned that during late fall and early winter weak channel ice may cause mortality in wildlife trying to cross the channel.</p> <p>Hollow River First Nation is concerned about movement of wildlife, particularly large mammals that may not be able to cross the channels if they are rock armoured, noting that vegetated bridges can be constructed for movement of large mammals across waterways.</p> <p>Hollow River First Nation is concerned about reduced access to hunting and trapping areas due to Project construction and operation and presence of permanent infrastructure that will bisect the land.</p> <p>Hollow River First Nation is concerned about disturbance of wildlife and wildlife habitat due to Project construction and operation and presences of permanent infrastructure that will bisect the land</p> <p>Hollow River First Nation is concerned about altered movement, use, or avoidance by wildlife of the Project and surrounding areas due to Project construction and operation and presence of permanent infrastructure that will bisect the land.</p> <p>Hollow River First Nation is concerned about increased wildlife mortality due to potential vehicle-wildlife collisions from increased vehicle traffic associated with Project construction and operation.</p> <p>Hollow Water First Nation is concerned that culturally important animal species such as moose and will be affected by the Project.</p> <p>Hollow Water First Nation is concerned that the channels do not providewildlife passage in the east or west directions in the summer as both channels will be full of water. During late fall and early winter weak channel ice may cause mortality in wildlife trying to cross the channel.</p> <p>Hollow Water First Nation is concerned that revegetation of the channel right-of-ways with non-native vegetation on an unnatural landscape will not promote biodiversity or sustain existing wildlife species. Compensation habitat in other watersheds will potentially redistribute native wildlife species to areas outside of Hollow Water First Nation reserve or traditional areas.</p> <p>Hollow Water First Nation is concerned that there will be mortality to animals trying to traverse the channels particularly during operation due to drowning.</p> <p>Hollow Water First Nation is concerned that PR 239 realignment and widening may have a minor impact on migratory bird habitat. As a result of lowering flows and levels on Lake Manitoba, Lake St Martin, Fairford River and Dauphin</p>		<p>wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>Project, so that areas and time periods of activity can be avoided.</p> <ul style="list-style-type: none"> As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Terrestrial buffers, as identified by the Manitoba Conservation Data Centre's Recommended Development Setback Distances from Birds and/or MSDs Forest Management Guidelines for Terrestrial Buffers will be adhered to for all applicable sites (Chapter 8, Section 8.3; PERS, Section 2.9.1). <p>Manitoba Transportation and Infrastructure will comply with the Migratory Birds Convention Act, 1994 and follow prohibitions, including, but not limited to, avoiding the deposition of harmful substances in wetlands frequented by migratory birds (see IAAC-50).</p> <p>Additionally, BMPs described in the PERs and CEMP will be applied to all Project components and will include plans for hazardous material transportation and management, emergency response (i.e., spills), dust control, working in or near water, petroleum storage and equipment fueling and servicing, and erosion and sedimentation control. The PERs and the draft</p>	<p>(Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Hollow Water First Nation were provided to Manitoba Transportation and Infrastructure in June 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help</p>

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May 31, 2022

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<p>River, migratory fowl habitat will shrink and be degraded resulting in declines in migratory birds in the region.</p> <p>Hollow Water First Nation is concerned about the increase in hunting pressure and the higher potential of human caused wildfires that the Project Access Road will promote during construction and post project.</p> <p>Hollow Water First Nation is concerned that the position that the channels will further reduce the natural variability of Lake Manitoba and Lake St Martin marshes resulting in degradation of the marsh and migratory bird habitat.</p> <p>Hollow Water First Nation stated that the impact to wildlife migration, wildlife habitat and ultimately impacting SAR, migratory and species of cultural importance is an impact to Hollow Water First Nation treaty and traditional rights.</p> <p><u>Recommendations made by Hollow River First Nation:</u></p> <ul style="list-style-type: none"> Hollow Water First Nation recommends vegetated bridges to be constructed for movement of large mammals across waterways Hollow Water First Nation recommends that the project warrants a 3-D Finite element model to predict the piezometric levels within the LAA. Hollow Water First Nation requests that Manitoba Transportation and Infrastructure explain how set back distances for each species be delineated on the Project boundaries and explain how will they be implemented and if there will be consequences for violating the setback distances <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program for the Project.</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.9</p> <p>BRFN, BON and HWFN 2019.</p> <p>HWFN 2020a</p> <p>HWFN. 2021a.</p> <p>HWFN. 2021b</p>			<p>Dust Control Plan (see Attachment 1 – Updated Environmental Management Plans) stipulate dust control application requirements and the PERs and Manitoba Environmental Accident Reporting Regulation stipulate reporting requirements and response measures for hydrocarbons and other products (e.g., see PER 2.5.2; Attachment 1 – Updated Environmental Management Plans). The road will be operated and maintained in a manner consistent with Manitoba Transportation and Infrastructure’s practice for the current PR 239 and other public roads throughout the Province of Manitoba. Based on the mitigation measures and BMPs described above, and the limited interaction of the road realignment with wetland habitat, potential effects can be avoided or reduced.</p> <p><u>Residual Effects after Mitigation:</u> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Hollow Water First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u></p> <p>Hollow Water First Nation reported fishing pickerel, sturgeon, sunfish, catfish and whitefish.</p> <p>Hollow Water First Nation reported that Lake Winnipeg is sick, there are algae blooms. It can be good for fish in the short term, but bad long term.</p> <p>Hollow River First Nation reported that there are low pickerel numbers.</p> <p>Hollow Water First Nation reported that fishing areas include the Winnipeg River, Jessica Lake, Lone Island Lake, Betula Lake, and Sturgeon Point.</p> <p>Hollow Water First Nation reported fishing for sturgeon at Lac du Bonnet.</p> <p>Hollow Water First Nation reported fish are caught that have bumps on their bodies, scabs and boils on their gills, and tumors. Their meat is the wrong colour and doesn't taste right.</p> <p>Hollow Water First Nation reported that invasive species are coming in that don't belong, such as zebra mussels; they impact the health of our lake.</p> <p>Hollow Water First Nation reported that fishermen are having a hard time catching their limits.</p> <p>Hollow Water First Nation reported that there many of the lakes on the reserve have dried up.</p> <p>Hollow Water First Nation reported that over time, government restrictions have changed the way they are able to fish. Hollow Water First Nation stated that they are no longer able to catch sturgeon, a fish that was so important to our ancestors.</p> <p>Hollow Water First Nation reported that Aboriginal fishing rights have been severely affected by Fairford Control Structure past operations.</p> <p>Hollow Water First Nation reported that Birch Creek and Fairford River are a source of nutrients to the south basin, which has resulted in an abundant white fish population.</p> <p>Hollow Water First Nation reported that lakes such as Birch Lake, Goodman Lake and Reed Lake and possibly locations along Birch Creek benefit from artesian groundwater discharge to supplement base flows of the creek.</p> <p>Hollow Water First Nation reported that groundwater seeps near the southern shores of the south basin of Lake St. Martin maintain critical wildlife habitat, including whitefish spawning.</p>	<p><u>Fish species identified by Hollow Water First Nation:</u> pickerel, sturgeon, sunfish, catfish and whitefish</p> <p><u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> white sucker, whitefish, common carp, northern pike, burbot, trout, perch, sauger, walleye.</p> <p><u>Locations:</u> Lake St. Martin and Sturgeon Bay are in the PDA. Portions of Lake Winnipeg and Lake Manitoba are in the PDA. Fairford River is in the PDA. Watchorn Bay is in the PDA. Sturgeon Point is in the PDA. Dauphin River is within the LAA. Birch Creek is within the LAA. Big Buffalo Lake and Reed Lake are in the LAA. Wanipigow Bay and Goodman Lake are outside of the RAA. Lone Island Lake, Betula Lake, Jessica Lake, Lac du Bonnet and the Winnipeg River are outside of the RAA. Black Island is outside of the RAA. Mantagao River is outside the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about current use by Fox Lake Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Fox Lake Cree Nation occur throughout the RAA and that species commonly understood to be caught by Indigenous peoples that occur within the RAA may be fished by Fox Lake Cree Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment,</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p>	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized</p>

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<p>Hollow Water First Nation reported that whitefish and pickerel spawn in Lake St. Martin and the associated waterways supporting the Lake Winnipeg fishery.</p> <p>Hollow Water First Nation reported that high spring flood flows tend to be good for the health of fish populations, specifically pickerel.</p> <p>Hollow Water First Nation reported that fish harvesting has been part of the traditional economy for generations, while the commercial aspect of fishing represents an economic factor for the community and its citizens.</p> <p>Hollow Water First Nation reported that Birch Creek, Lake St Martin and the Dauphin River are important fish spawning grounds that sustain Lake Winnipeg fishery.</p> <p>Hollow Water First Nation is concerned about diminishing ground water pressure and volume will impact the Birch Creek and Lake St. Martin ecosystem.</p> <p>Hollow Water First Nation is concerned about impacts to Buffalo Lake, Buffalo Creek and adjacent wetlands will impact the fishery and wildlife habitat. The aquifer modelling is total inadequate.</p> <p>.</p> <p><u>Issues and Concerns:</u></p> <p>Hollow River First Nation is concerned about invasive species.</p> <p>Hollow River First Nation is concerned about effects of the Project on Lake Manitoba, Lake St Martin and Lake Winnipeg fishery, in particular, effects on fish spawning grounds, will alter fish abundance diversity, distribution and spawning movement and will cause fish mortality.</p> <p>Hollow River First Nation is concerned with sedimentation in Lake St. Martin and Sturgeon Bay.</p> <p>Hollow Water First Nation is concerned with the effect on quantity of potable water in the operations of the channel over its lifetime.</p> <p>Hollow River First Nation is concerned about water quality and are concerned that the Project will introduce pollutants.</p> <p>Hollow Water First Nation is concerned that winter operations could expose whitefish spawning grounds and freeze eggs.</p> <p>Hollow River First Nation is concerned that the depressurization system wastage of groundwater and channel infiltration of groundwater and exfiltration of Lake Manitoba water going to affect the sustainability of the Carbonate Aquifer in both water quality and quantity.</p> <p>Hollow River First Nation stated that Birch Creek should not be a discharge zone for waste water during construction. High silt loads could cover the natural substrate of the creek. Hollow</p>		<p>and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted “in the dry” and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. • Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to 	<p>in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Hollow Water First Nation were provided to Manitoba Transportation and Infrastructure in June 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>River First Nation states that groundwater from depressurization wells during construction and long term operations should also not be wasted in Birch Cree and that groundwater is anoxic and will be harmful to the Birch Cree fishery possibly causing fish kills particularly in the winter.</p> <p>Hollow River First Nation reported that the Carbonate aquifer discharges in the Lake St. Martin lake bottom creating critical habitat for white fish spawning and are concerned that diminishing ground water pressure and volume will affect the Birch Cree and Lake St. Martin ecosystems.</p> <p>Hollow River First Nation is concerned that effects to Buffalo Lake, Buffalo Creek and adjacent wetlands will affect the fishery.</p> <p>Hollow River First Nation is concerned that silt deposition in Lake St. Martin can affect fish spawning, fishery habitat and drinking water sources. An effect in the Lake St Martin fishery can affect the Lake Winnipeg fishery. Whitefish and pickerel spawn in Lake St Martin and the associated waterways supporting the Lake Winnipeg fishery.</p> <p>Hollow River First Nation is concerned about shoreline degradation of Watchorn Bay.</p> <p>Hollow River First Nation is concerned that the existing fish ladder is to be removed from the Fairford Control Structure and requests that Manitoba Infrastructure replace the fish ladder as a component of this Project.</p> <p>Hollow Water First Nation is concerned that predatory fish will prey on stranded fish in LSMOC drop structure pools.</p> <p>Hollow Water First Nation is concerned that the LMOC and LSMOC flood damage reduction effectiveness will be diminished in the future as wetlands continue to be drained.</p> <p>Hollow Water First Nation is concerned that both aquatic habitat and wetlands will degrade and retract in size and area.</p> <p>Hollow Water First Nation is concerned that the LMOC and LSMOC will affect fish spawning grounds, will alter fish abundance diversity, distribution and spawning movement and will cause fish mortality, lake shoreline habitats will be altered and spawning grounds will be disrupted or exposed to the elements.</p> <p>Hollow Water First Nation is concerned that the Project will cause spawning beds will be disrupted and the nutrient balance of the south basin of Lake St. Martin may change.</p> <p>Hollow Water First Nation is concerned that sediment transport into the south basin will increase due LMOC being a vector for Lake Manitoba sediment.</p>			<p>the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p>Surface water quality and nutrient loading are discussed in IAAC-13, IAAC-14, IAAC-65, IAAC-84 and IAAC-107</p> <p>Design updates are addressed in IAAC-38. Manitoba Transportation and Infrastructure is investigating an option to construct a small, gated control structure that would allow up to 0.5 m³/s of water to be diverted from the LMOC into the lower Birch Cree:</p> <ul style="list-style-type: none"> The purpose of this structure would be to help restore flow that will be lost due to the 	<p>discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Hollow Water First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

**LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT
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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Hollow Water First Nation is concerned that high winds events on Lake Manitoba will increase suspended solids at the entrance of the LMOC resulting in sediment plumes to the Lake St. Martin (LSM) south basin.</p> <p>Hollow Water First Nation is concerned about fish stranding when the channel is not in operation.</p> <p>Hollow Water First Nation is concerned that with the reduction of the operating range and reduced natural water level variability of Lake Manitoba and Lake St Martin, riparian zones and lake marshes will be degraded reducing their ecological integrity and important role as wildlife habitat and natural biological filter.</p> <p>Hollow Water First Nation is concerned that artificially managed water levels during spring will seriously affect spawning duration and quality. This will have a negative effect on the population of pickerel in Hollow Water First Nation waters and directly affect the commercial viability of the fishery, the recreational tourism created by this resource, and negatively affect the traditional food security within the community.</p> <p>Hollow Water First Nation has concerns regarding the Project's effect on the spawning cycle and changes brought about by increased sedimentation on key fish spawning habitat in the Black Island and Wanipigow Bay area.</p> <p>Hollow Water First Nation is concerned about the Project's effects on fish.</p> <p>Hollow Water First Nation is concerned with algae blooms on Lake Winnipeg.</p> <p>Hollow Water First Nation is concerned that removing a portion of the watersheds will affect flow variability of Birch Creek and Buffalo Creek.</p> <p>Hollow Water First Nation is concerned that the deepened segment of LSMOC will intercept groundwater surface discharge and lower the water table in this area, affecting the Mantagao River, Birch Creek, and the wetlands between LSMOC and the river.</p> <p>Hollow Water First Nation is concerned that "groundwater blow outs" in the channel would be a source of sediment for transport to Lake St. Martin.</p> <p>Hollow Water First Nation is concerned that silt deposition will impact the Lake St. Martin, Lake Manitoba, and Lake Winnipeg fishery.</p> <p>Hollow Water First Nation is concerned that with increased regulation of the lakes, shoreline habitat will be altered and spawning grounds will be disrupted or exposed to the elements.</p> <p>Hollow Water First Nation is concerned that winter operations could expose whitefish spawning grounds and freeze eggs.</p>			<p>reduction in the watershed drainage area caused by the construction of the LMOC, and thereby reduce effects to fish habitat</p> <ul style="list-style-type: none"> • This structure would be constructed where the undeveloped Rafkillsen Road Government Road Allowance intersects the LMOC, which is located between PTH 6 and the proposed WCS at Iverson Road <p>The structure would be comprised of a gated conduit with concrete headwalls built through the east channel bank at this location</p> <ul style="list-style-type: none"> • The conduit would be approximately 1 m in diameter and would accommodate conveyance of a flow rate of up to 0.5 m³/s by gravity into an approximately 490 m long discharge channel that would be constructed within the partially developed Rafkillsen Road Government Road Allowance and tied-into Birch Creek • Only minimal modifications are likely required to upgrade the drainage capacity of the existing ditch • The structure would only be operated during open-water periods when the LMOC WCS gates are closed, and thus would be designed to accommodate water levels in the LMOC that reflect the normal operation range of Lake Manitoba (i.e., 247.04 m to 247.65 m [810.5 ft to 812.5 ft]) • There are no plans to discharge groundwater long-term to Birch Creek. Groundwater may be anoxic but will be aerated before discharge to any natural surface water. <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	

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<p>Hollow Water First Nation is concerned about the effectiveness of the Mercer Creek Spawning bed for offsetting.</p> <p>Hollow Water First Nation is concerned that Watchorn Bay, Birch Bay, Sturgeon Bay will be permanently altered resulting in irreversible impact to the fishery spawning grounds.</p> <p>Hollow Water First Nation is concerned that the plume extent into Sturgeon Bay and north to eastern shores of Lake Winnipeg may impact spawning beds of sturgeon, pickerel and whitefish particularly during the spawning window of these species.</p> <p>Hollow Water First Nation is concerned that the nutrient balance of the south basin of Lake St. Martin may change.</p> <p>Hollow Water First Nation is concerned that sediment transport into the south basin will increase due to LMOC being a vector for Lake Manitoba sediment and that high winds events on Lake Manitoba will increase suspended solids at the entrance of the LMOC resulting in sediment plumes to the Lake St. Martin south basin.</p> <p>Hollow Water First Nation is concerned that Dauphin River will always have lower flows during floods resulting in an impact to the aquatic habitat and the fishery population.</p> <p>Hollow Water First Nation is concerned that the channels will alter fish abundance diversity, distribution and spawning movement and will cause fish mortality.</p> <p>Hollow Water First Nation is concerned that artificially managed water levels during spring will seriously affect spawning duration and quality, impacting the population of pickerel, the commercial viability of the fishery, the recreational tourism created by this resource, and the traditional food security within the community.</p> <p>Hollow Water First Nation is concerned that the Project will result in increased sedimentation on key fish spawning habitat in the Black Island and Wanipigow Bay area.</p> <p>Hollow Water First Nation is concerned about impacts to Buffalo Lake, Buffalo Creek and adjacent wetlands. They are concerned that the Project will impact the fishery and have noted that MTI's aquifer modelling is inadequate.</p> <p>Hollow Water First Nation is concerned as they do not believe adequate drilling has been completed adjacent to the lakes and wetland complexes of Birch Creek to identify groundwater inflow points.</p> <p>Hollow Water First Nation is concerned that Lake Manitoba has significantly higher concentrations of both nitrogen and phosphorus than Lake St. Martin. Hollow Water First Nation is concerned about the possibility of more frequent and severe algae blooms for both Lake St Martin and Lake Winnipeg.</p> <p>Hollow Water First Nation questioned how will the increased</p>				

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<p>flow from LMOC might impact the Lake St Martin and Lake Winnipeg fisheries</p> <p>Hollow Water First Nation views water quantity/water level impacts to Lake St Martin as a direct impact on Lake Winnipeg and their treaty and traditional use rights</p> <p>Hollow Water First Nation is concerned about plans to relocate a portion of Birch Creek to accommodate the LMOC.</p> <p>Hollow Water First Nation is concerned about surface water quality, sediment transport, nutrient loading, and drainage of wetlands.</p> <p>Hollow water First Nation has stated that Birch Creek should not be a discharge zone for wastewater during construction, as high silt loads could cover the natural substrate of the creek. Groundwater from depressurization wells during construction and long term operations should also not be wasted in Birch Creek. Groundwater is anoxic and will be harmful to the Birch Creek fishery possibly causing fish kills particularly in the winter.</p> <p>Hollow Water First Nation is concerned that the dispersion of sediment in the lake bottoms of Lake St Martin and Lake Winnipeg are different pre project versus post project, impacting new areas of the lakes and this will impact fish spawning grounds.</p> <p>Hollow Water First Nation is concerned that the Mantagao River may also be impacted by the LSMOC sediment deposition under a north windstorm.</p> <p>Hollow Water First Nation is concerned that sedimentation in Birch Bay with affect fish spawning beds.</p> <p>Hollow Water First Nation is concerned that dissolved oxygen under ice conditions can affect fish mortality.</p> <p>Hollow Water First Nation is concerned that fish will not be able to populate the portion of Birch Creek cutoff by the LMOC and the portion of Buffalo Creek cutoff by the LSMOC.</p> <p>Hollow Water First Nation is concerned that predatory fish will prey on stranded fish in LSMOC drop structure pools.</p> <p>Hollow Water First Nation is concerned that Manitoba Transportation and Infrastructure has not addressed a number of factors that could impact fish habitat, fish spawning, fish movement, and potential fish forage.</p> <p>Hollow Water First Nation is concerned that Manitoba Transportation and Infrastructure has not addressed effects on fish due to proposed flow allocation, hydrographic effects, flow changes to fish and fish habitat and mercury in fish flesh</p> <p>Hollow Water First Nation is concerned that the position that the channels will further reduce the natural variability of Lake</p>				

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<p>Manitoba and Lake St Martin marshes resulting in degradation of the marsh and migratory bird habitat.</p> <p>Hollow water First Nation stated that sediment levels and sediment quality in the Project area during construction, operation and maintenance activities is a direct impact on Hollow Water First Nation with regard to their treaty and traditional use rights in terms of fishery harvesting, drinking water quality, impacts on reserve shoreline habitat and cultural and recreational use of Lake St. Martin.</p> <p>Hollow Water First Nation considers the alteration of the carbonate aquifer in the vicinity of LMOC and LSMOC to be an impact on traditional use and treaty rights.</p> <p><u>Recommendations made by Hollow River First Nation:</u></p> <ul style="list-style-type: none"> • Hollow Water First Nation recommends monitoring of Watchorn beaches • Hollow Water First Nation recommends that cross sections need to be taken of Watchorn Provincial Park shoreline and resurveyed every year to monitor impact of disturbance of littoral drift of sand • Hollow Water First Nation recommends that Manitoba Infrastructure replace the fish ladder at the Fairford Control Structure • Hollow Water First Nation recommends that additional monitoring is required to understand changes in flows in Dauphin and Fairford River on fish movements in these rivers. • Hollow Water First Nation recommends that fish friendly objectives should be incorporated in the LSMOC operating rules that provide a flow split between LSMOC and Dauphin River that will be more beneficial for the Dauphin River fishery particularly for small or intermediate sized floods. • Hollow Water First Nation recommends reduced risk timing to be incorporated in the operating guidelines for LMOC and LSMOC to reduce effects on fish and fish habitat. Hollow Water First Nation recommends that diversion culverts supplement flow to Birch Creek and Buffalo Creek to replicate the natural flow. • Hollow Water First Nation recommends that inline silt traps be installed on a frequent basis to intercept silt transport. • Hollow Water First Nation recommends monitoring groundwater quality with respect to domestic wells over the life of the Project. 				

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<ul style="list-style-type: none"> • Hollow Water First Nation recommends that the channels be lined with 1.0m (or greater thickness) of low permeability clay in those areas where the aquitard is removed. • Hollow Water First Nation recommends in-channel oxygen monitoring be considered to minimize fish mortality. • Hollow Water First Nation recommends sand be hauled in to mitigate beach and dune erosion, if required. • Hollow Water First Nation recommends that a second gauging station will be used on Lake St. Martin to monitor each basin's water level independently. • Hollow Water First Nation recommends a minimum flow to provide sustaining oxygen levels, particularly below drop structures. • Hollow Water First Nation recommends that there be flexibility in the operating rules to also minimize aquatic habitat and fishery impacts. • Hollow Water First Nation recommends that Manitoba Infrastructure provide funding for an ongoing Resource Management Program for the regional fishery, complete with funding for a marine biologist and sediment and biomass study over a 5-year period. • Hollow Water First Nation recommends that the flow split between LSMOC and Dauphin River be adjusted for intermediate and smaller floods to favour Dauphin River flows during spawning periods. • Hollow Water First Nation recommends that the project warrants a 3-D Finite element model to predict the piezometric levels within the LAA. • Hollow Water First Nation recommends that Watershed modelling of the full Buffalo Lake and Creek watershed would provide an understanding of impacts to wetlands, natural water courses, proposed drainage systems, natural habitat, and traditional Hollow Water First Nation traditional lands. This modelling would identify flow paths, inundation areas and change of soil moisture conditions within the watershed for drought, moderate and extreme runoff events. Removing a portion of the watershed will impact the flow variability of Buffalo Creek. <p>Sources: Manitoba Infrastructure Indigenous Engagement Program for the Project. Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.9 BRFN, BON and HWFN 2019</p>				

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HWFN 2020 HWFN 2020a HWFN 2021a HWFN 2021b				
Plants and Plant Harvesting				
<p><u>Existing Conditions:</u></p> <p>Hollow Water First Nation reported harvesting wild rice, chokecherries and wild plums, <i>weekay (weke)</i>, Seneca root, cedar, Labrador tea, willow, rosehips, poplar, potato, raspberries, blueberries.</p> <p>Hollow Water First Nation reported that berries and wild rice are important foods.</p> <p>Hollow Water First Nation reported that wild rice and <i>weekay</i> is harvested from the shores of Lake Winnipeg, Hollow Water, and the Brokenhead River.</p> <p>Hollow Water First Nation reported rice planting and harvesting occurs in shallow bays on Lake Winnipeg, Manigotogan River and Wanipigow River.</p> <p>Hollow Water First Nation reported that wild rice is harvested in the Whiteshell but also in various small lakes and along the shorelines of rivers throughout Hollow Water First Nation traditional territory.</p> <p>Hollow Water First Nation reported that medicines are harvested in the Whiteshell; along the Winnipeg River, the Brokenhead Boardwalk.</p> <p>Hollow Water First Nation reported that poplar, willow, Labrador tea, potato and rosehips can be used for medicine.</p> <p><u>Issues and Concerns:</u></p> <p>Hollow Water First Nation is concerned that increasing use of chemicals, regulation of water levels, and changes to water quality also have major impacts on wild rice, berries and other plants we harvested.</p> <p>Hollow Water First Nation is concerned about the loss of traditional herbs and medicines taken by the foot print of the Project.</p> <p>Hollow Water First Nation is concerned that that permanent vegetative development in the Wanipigow Zone, will be negatively affected.</p> <p>Hollow Water First Nation is concerned that no vegetation will establish along the channel side slopes.</p> <p>Hollow Water First Nation is concerned that down gradient, drying-down of wetlands could occur which could reduce the area of open water, shift plant composition, favouring species</p>	<p><u>Species identified by Hollow Water First Nation:</u> wild rice, chokecherry, wild plum, <i>weekay (weke)</i>, Seneca root, cedar, Labrador tea, willow, rosehips, poplar, potato, raspberry, blueberry.</p> <p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugle-weed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, rattlesnake root, self-heal, pin cherry, sand cherry, bracken (fiddlehead), wintergreen, bur oak, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, red clover, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes.</p> <p><u>Locations:</u> Portions of Lake Winnipeg are in the PDA. Whiteshell Provincial Park, the Winnipeg River Brokenhead River, Manigotogan River and Wanipigow</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Manitoba Infrastructure acknowledges that the information about use of plants and plant harvesting by Hollow Water First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use plants and plant harvesting by Hollow Water First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Hollow Water First Nation.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups</p>

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<p>adapted to less frequently flooded and shallower conditions, and reduce wetland extent.</p> <p>Hollow Water First Nation is concerned that with the reduction of the operating range and reduced natural water level variability of Lake Manitoba and Lake St Martin, riparian zones and lake marshes will be degraded reducing their ecological integrity and important role as wildlife habitat and natural biological filter.</p> <p>Hollow Water First Nation is concerned that both aquatic habitat and wetlands will degrade and retract in size and area. Hollow Water First Nation is concerned with disturbance to culturally important gathering resources such as plant species of cultural, spiritual, and medicinal importance through the Project construction and operation and presence of permanent structures.</p> <p>Hollow Water First Nation is concerned with reduced access to culturally important gathering resources such as plant species of cultural, spiritual, and medicinal importance due to permanent structures bisecting the landscape.</p> <p>Hollow Water First Nation is concerned about how the Project will affect culturally significant plants such as Seneca root.</p> <p>Hollow Water First Nation view the impact to culturally important terrestrial plants as an impact to their treaty and traditional rights to harvest for sustenance, medicinal and spiritual purposes.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program for the Project.</p> <p>BRFN, BON and HWFN 2019</p> <p>HWFN 2020</p> <p>HWFN 2020a</p> <p>HWFN 2021a</p> <p>HWFN 2021b</p>	<p>River and Hollow Water are located outside of the RAA</p>		<p>ROW and not extend beyond the PDA (Chapter 8, Section 8.2).</p> <ul style="list-style-type: none"> Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by</p>	<p>engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Hollow Water First Nation were provided to Manitoba Transportation and Infrastructure in June 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
			Indigenous peoples will continue to be available and accessible within the RAA.	<p>anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Hollow Water First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p><u>Existing Conditions:</u></p> <p>Hollow Water First Nation reported that rivers were particularly important to their communities, stating “we took these waterways up from the south when we first arrived in this land. The rivers were our highways. The important sites where we camped, harvested, gave birth, held ceremonies, and buried our loved ones, were all located along the waterways.”</p> <p>Hollow Water First Nation noted that they find artifacts all through the along the shores of rivers that show how their ancestors used the waterways for travel routes.</p> <p><u>Issues and Concerns:</u></p> <p>Hollow Water First Nation is concerned that increased sedimentation and turbidity can cause trees to collapse into the lake as their root structures are compromised, which is a serious navigational hazard that makes travel on the water considerably dangerous.</p> <p>Hollow Water First Nation views the access road and transmission line as an impact of our traditional and treaty rights in terms of opening our traditional and reserve lands for public access resulting in an impact to our cultural and Aboriginal harvesting of herbs, medicines and culturally significant wildlife species for sustenance and aesthetic value.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program for the Project.</p>	<p><u>Locations:</u> No specific travel routes within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by Hollow Water First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by Hollow Water First Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. 	<p>The success of mitigation for travel routes will be monitored through the EMPs These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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<p>HWFN 2020a HWFN 2021b.</p>		<p>temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be</p>	<ul style="list-style-type: none"> • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. • As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Hollow Water First Nation were provided to Manitoba Transportation and Infrastructure in June 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support</p>

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		able to continue, with alterations, during operations.		<p>this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Hollow Water First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p><u>Existing Conditions:</u></p> <p>Hollow Water First Nation reported that Black and Deer Islands in Lake Winnipeg are important for ceremonies.</p> <p>Hollow Water First Nation reported that there are important sites where they have camped, harvested, gave birth, held ceremonies, and buried loved ones, are all located along the waterways.</p> <p>Hollow Water First Nation reported that the cottage lot and campsite developments in the region provide Hollow Water First Nation with significant socio-economic and cultural benefit.</p> <p>Hollow Water First Nation reported that their resource management area has a robust winter recreation season, with many people in the region spending extensive time on the</p>	<p><u>Locations:</u> Black Island and Deer Island in Lake Winnipeg are outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRlA identified existing or potential sites. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. 	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory</p>

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<p>frozen lake, recreational fishing, enjoying snow trails, and extended winter camping/harvesting.</p> <p><u>Issues and Concerns:</u></p> <p>Hollow Water First Nation is concerned about effects on traditional activities such as angling, picking medicines along the shoreline, trapping, and ceremony at Black Island.</p> <p>Hollow Water First Nation is concerned that artificial manipulation of the waters will affect this traditional economy and way of life.</p> <p>Hollow Water First Nation is concerned with altered cultural experience due to noise, dust and light pollution associated with Project construction and operation and the presence of permanent structures.</p> <p>Hollow Water First Nation is concerned with loss, damage, or disturbance of areas of cultural, historical, archaeological, paleontological, or architectural significance through Project related disturbance.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program for the Project.</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.9</p> <p>Manitoba Infrastructure 2019b</p> <p>BRFN, BON and HWFN 2019</p> <p>HWFN. 2021a.</p> <p>HWFN. 2021b</p>		<p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p>	<ul style="list-style-type: none"> Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Further, the Environmental Protection Program for the Project will include a Cultural and Heritage Resources Protection Plan (CHRPP). Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, effects on cultural or spiritual sites within the PDA are predicted to be long-term in duration, high in magnitude, continuous, irreversible, and disturbed. Timing is not applicable, as changes to cultural and spiritual sites or areas would occur irrespective of day or season.</p>	<p>committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Hollow Water First Nation were provided to Manitoba Transportation and Infrastructure in June 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring</p>

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				<p>programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Hollow Water First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>Keeseekoowenin Ojibway Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p>Manitoba Infrastructure has obtained no information about Keeseekoowenin Ojibway Nation hunting or trapping or traditionally harvested species in the RAA through the Indigenous consultation engagement program or a review of publicly available literature.</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> moose, mule deer, white-tailed deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, muskrat, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p> <p><u>Locations:</u> No specific hunting or trapping sites or locations used by Keeseekoowenin Ojibway Nation within the RAA were identified through the Indigenous Consultation and Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>In the absence of specific information about current use by Keeseekoowenin Ojibway Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping Keeseekoowenin Ojibway Nation occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Keeseekoowenin Ojibway Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups</p>

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		<p>upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>ROW and not extend beyond the PDA (Chapter 8, Section 8.2).</p> <ul style="list-style-type: none"> Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Keeseekoowenin Ojibway Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling</p>

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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
				<p>and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE R, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Keeseekoowenin Ojibway Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Aquatic Environment and Fishing				
<p><u>Issues and Concerns:</u> Keeseekoowenin Ojibway Nation is concerned about the Project's impacts to fish and invasive species.</p> <p><u>Sources:</u> Manitoba Infrastructure Indigenous Engagement Program for the Project</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye (pickerel).</p> <p><u>Locations:</u> No specific aquatic environment and fishing locations used by Keeseekoowenin Ojibway Nation within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>In the absence of specific information about current use by Keeseekoowenin Ojibway Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Keeseekoowenin Ojibway Nation to occur within the RAA and that species commonly understood to be caught by Indigenous peoples that occur within the RAA may be fished by Keeseekoowenin Ojibway Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract that could attract fish to new areas. One-way movement</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received</p>

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		<p>of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects can also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<ul style="list-style-type: none"> • Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. • Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted "in the dry" and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. 	<p>on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Keeseekoowenin Ojibway Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba</p>

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			<ul style="list-style-type: none"> • Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). • To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> • Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route 	<p>Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about aquatic environment and fishing that Keeseekoowenin Ojibway Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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			<p>comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered.</p> <ul style="list-style-type: none"> Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	
Plants and Plant Harvesting				
<p>Manitoba Infrastructure has obtained no information about Keeseekoowenin Ojibway Nation plant harvesting or traditionally harvested plant species in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle,</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>In the absence of specific information about current use by Keeseekoowenin Ojibway Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by A Keeseekoowenin Ojibway Nation to occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Keeseekoowenin Ojibway Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plants species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that</p>

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	<p>snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> No specific plant harvesting sites or locations used by Keeseekoowenin Ojibway Nation within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<ul style="list-style-type: none"> • The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration • As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). • Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. • The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). 	<p>supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Keeseekoowenin Ojibway Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring.</p>

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			<ul style="list-style-type: none"> The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project.</p> <p>Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Keeseekoowenin Ojibway Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p>Manitoba Infrastructure has obtained no information about Keeseekoowenin Ojibway Nation use of travel routes in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific travel routes used by Keeseekoowenin Ojibway Nation within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by Keeseekoowenin Ojibway Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by Keeseekoowenin Ojibway Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow up studies, Manitoba Transportation and Infrastructure will continue to engage with Indigenous groups to gather information on use of travel routes in the RAA. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the</p>	<ul style="list-style-type: none"> • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. • As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed at specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Keeseekoowenin Ojibway Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring</p>

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		<p>disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>		<p>programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Keeseekoowenin Ojibway Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Habitation, Cultural and Spiritual Sites				
<p>Manitoba Infrastructure has obtained no information about Keeseekoowenin Ojibway Nation use of habitation, cultural and spiritual sites in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations used by Keeseekoowenin Ojibway Nation within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about habitation, cultural and spiritual sites and areas identified by Keeseekoowenin Ojibway Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Keeseekoowenin Ojibway Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Keeseekoowenin Ojibway Nation to date.</p>

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		<p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>		<p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p>

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<p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Keeseekoowenin Ojibway Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>				
<p>Kinonjeoshtegon First Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u> Kinonjeoshtegon First Nation have reported hunting and trapping moose, white-tailed deer, marten, lynx, rabbit, wolf, beaver, coyote, fox, fisher, mink, otter, squirrel, wolverine, weasel, bear, geese, ducks, grouse, caribou, muskrat, Canada goose, partridge, prairie chicken. Kinonjeoshtegon First Nation reported that moose and white-tailed deer are important species for subsistence. Kinonjeoshtegon First Nation also hunt for upland bird and game species. Kinonjeoshtegon First Nation that geese and ducks are valued for meat and eggs Kinonjeoshtegon First Nation reported that yellow rail, least bittern, snapping turtle, eastern whip-poor-will, bat, and red-headed woodpecker are significant species. Kinonjeoshtegon First Nation indicated that trapping takes places in the RAA and LAA. Kinonjeoshtegon First Nation noted that the Project is adjacent to GHA 21, GHA 16, and GHA 25 to the southeast. Kinonjeoshtegon First Nation reported that since flooding 2011 there has been a decline in the presence of moose, deer, beaver and muskrats. Kinonjeoshtegon First Nation reported that there has been a general decline in hunting due to impacts from industrial development, agricultural development, introduced species, hunting restrictions, land privatization, clearing and contamination of water and food sources. Kinonjeoshtegon First Nation reported that there are a lot of trapline trails located in the areas of the ROW and Road Project.</p>	<p><u>Species Identified by Kinonjeoshtegon First Nation:</u> moose, white-tailed deer, marten, lynx, rabbit, wolf, beaver, coyote, fox, fisher, mink, otter, squirrel, wolverine, weasel, bear, geese, ducks, grouse, caribou, muskrat, Canada goose, partridge, prairie chicken, yellow rail, least bittern, snapping turtle, eastern whip-poor-will, red-headed woodpecker, bat. <u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> mule deer, elk, short-tailed weasel, long-tailed weasel, mallard, ruffed grouse, sharp-tailed grouse, bald eagle. <u>Locations:</u> GHA 21 intersects the PDA, GHA 16 and GHA 25 intersect the LAA. Portions of Lake Winnipeg and Lake St. Martin are within the PDA. The Narrows are within the PDA. The Dauphin River is within the LAA. Mantag Creek is within the RAA. Kinwow Bay and Lynx Bay are outside of the RAA</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use. Manitoba Infrastructure acknowledges that the information about hunting and trapping by Kinonjeoshtegon First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Kinonjeoshtegon First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Kinonjeoshtegon First Nation. While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively. The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA. Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project. For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component. During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups. A sharp-tailed grouse lek survey will be completed in 2022 identify any leks (i.e., traditional mating sites) that have the potential to interact with the Project.</p>

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<p><u>Issues and Concerns:</u></p> <p>Kinonjeoshtegon First Nation raised concerns regarding ongoing flooding in the region from control structures and increases in water levels on Lake Winnipeg that may cause the erosion of lake shoreline that diminishes the value of hunting.</p> <p>Kinonjeoshtegon First Nation expressed concern that local flooding may interfere with local hunting and trapping.</p> <p>Kinonjeoshtegon First Nation expressed concerns about adverse impacts on wildlife from contaminated water.</p> <p>Kinonjeoshtegon First Nation stated that the loss of valued hunting and trapping areas is key concern.</p> <p>Kinonjeoshtegon First Nation stated the consequences from the ROW and Road Project clearings have already been felt in the community. An area which was once heavily populated with moose is now virtually absent of wildlife. They noted that clearing trees is extremely noisy and disturbs the animals who have made their homes there. Even when the clearing is done, the increased noise will continue for many years due to increased traffic related to constructing the channel.</p> <p>Kinonjeoshtegon First Nation is concerned about the 1 km LAA, as it does not capture the zone of influence for species of importance to Indigenous groups, such as moose.</p> <p>Kinonjeoshtegon First Nation is concerned about the lack of the required SAR presence/absence surveys.</p> <p>Kinonjeoshtegon First Nation is concerned about whether offsetting and compensation measures will be applied in relation to impacts to all wildlife, including SAR.</p> <p>Kinonjeoshtegon First Nation is concerned about adverse effects to migratory birds impacted by the Project's reduction of lake water levels in Lake St. Martin which will result in changes to flow volumes and velocities through the Narrows and Dauphin River which support local movement and seasonal habitat of migratory birds as well as changes to shoreline habitat and fish and fish habitat that supports the seasonal habitat of migratory birds.</p> <p>Kinonjeoshtegon First Nation is concerned about the lack of information about critical lifecycle periods for yellow rail, least bittern, snapping turtle, eastern whip-poor-will, and red-headed woodpecker.</p> <p>Kinonjeoshtegon First Nation is concerned about how Manitoba Transportation and Infrastructure intends to prevent or minimize the release of harmful substances (such as road salt) in waters frequented by migratory birds. Kinonjeoshtegon First Nation is concerned about reduced habitat use and survival of migratory birds resulting from the release of harmful substances.</p>		<p>wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<ul style="list-style-type: none"> As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Clearing will not occur between April 1 and August 31 to avoid disturbance to nesting birds and other wildlife (Chapter 8, Section 8.3). Terrestrial buffers, as identified by the Manitoba Conservation Data Centre's Recommended Development Setback Distances from Birds and/or MSDs Forest Management Guidelines for Terrestrial Buffers will be adhered to for all applicable sites (Chapter 8, Section 8.3; PERS, Section 2.9.1) If construction is scheduled to occur within the nesting period for owls and raptors (March 1 to August 31), a nest survey may be conducted by a qualified wildlife biologist if warranted. In the event an active nest is found, it will be subject to site-specific mitigation measures (i.e., clearly marked protective buffer around the nest and/or non-intrusive monitoring) (Chapter 8, Section 8.3). <p>The Red-headed Woodpecker and Eastern Whip-poor-will Habitat Mitigation Plans are not intended to be offset or compensation plans, but instead are</p>	<p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Kinonjeoshtegon First Nation to discuss the Environmental Management Plans. A meeting was held with Kinonjeoshtegon First Nation on the following dates: September 23, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Kinonjeoshtegon First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for</p>

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<p>Kinonjeoshtegon First Nation expressed concern about the likelihood of salvaged/ relocated or retained snags falling over, impacting the effectiveness of red-headed woodpecker mitigation measures.</p> <p>Kinonjeoshtegon First Nation expressed concerns about the mortality of culturally important large mammal and furbearers that den or burrow and are vulnerable to Project vegetation clearing and ground disturbance.</p> <p>Kinonjeoshtegon First Nation expressed concern about the timing of the Project changes and seasonality of habitat use by migratory birds and SAR.</p> <p>Kinonjeoshtegon First Nation is concerned about the quality and functionality of wetlands impacted by the Project.</p> <p>Kinonjeoshtegon First Nation is concerned that the culturally important species have not been adequately identified.</p> <p>Kinonjeoshtegon First Nation is concerned about what impacts of the Project will have on Kinonjeoshtegon First Nation's ability to hunt specific species, e.g., moose as well as the Project consideration of effects on preferred species for trapping such as muskrats.</p> <p>Kinonjeoshtegon First Nation is concerned about whether and how Indigenous Knowledge was incorporated into understanding the impact pathways related to wildlife species or habitat.</p> <p>Kinonjeoshtegon First Nation is concerned that species uniquely susceptible to morality effects have not been identified by the Proponent.</p> <p>Kinonjeoshtegon First Nation is concerned about the use of gates meant to reduce hunting pressure impacts Indigenous uses and access.</p> <p>Kinonjeoshtegon First Nation is concerned about the impact of Project activities on beavers.</p> <p>Kinonjeoshtegon First Nation is concerned about the direct and indirect impacts of the Project on wildlife from habitat fragmentation.</p> <p>Kinonjeoshtegon First Nation is concerned about wildlife being willing or able to cross the channel as well as the residual effects and significance of the effects on all culturally important species movement,</p> <p>Kinonjeoshtegon First Nation is concerned about the amount of indirect habitat loss and alteration due to the Project.</p> <p>Kinonjeoshtegon First Nation is concerned about the effects of changes to habitat on non-migratory birds, particularly species of cultural importance.</p>			<p>species-specific habitat enhancement plans. The Red-headed Woodpecker Habitat Mitigation Plan includes measures to enhance the edges of the LMOC with shrubs and snags that will benefit not only red-headed woodpecker, but also other wildlife including species of cultural importance such as grouse, snowshoe hair, and red fox. Along the LSMOC, the Eastern Whip-poor-will Habitat Mitigation Plan describes how shrub and tree cover plantings will be added to the edges of the ROW where upland habitat (i.e., forest) exists. These plantings will provide habitat for eastern whip-poor-will and other animals including birds and furbearers.</p> <p>Manitoba Transportation and Infrastructure will comply with the Migratory Birds Convention Act, 1994 and follow prohibitions, including, but not limited to, avoiding the deposition of harmful substances in wetlands frequented by migratory birds (see IAAC-50).</p> <p>Additionally, BMPs described in the PERs and CEMP will be applied to all Project components and will include plans for hazardous material transportation and management, emergency response (i.e., spills), dust control, working in or near water, petroleum storage and equipment fueling and servicing, and erosion and sedimentation control. The PERs and the draft Dust Control Plan (see Attachment 1 – Updated Environmental Management Plans) stipulate dust control application requirements and the PERs and Manitoba Environmental Accident Reporting Regulation stipulate reporting requirements and response measures for hydrocarbons and other products (e.g., see PER 2.5.2; Attachment 1 – Updated Environmental Management Plans). The road will be operated and maintained in a manner consistent with Manitoba Transportation and Infrastructure's practice for the current PR 239 and other public roads throughout the Province of Manitoba. Based on the mitigation measures and BMPs described above, and the limited interaction of the road realignment with wetland habitat, potential effects can be avoided or reduced.</p> <p>The Red-headed Woodpecker Habitat Mitigation Plan contains a nest structure survey that will be used to assess the effectiveness of these mitigation measures by monitoring the structural integrity of salvaged decadent trees and artificial nest boxes.</p>	<p>Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Kinonjeoshtegon First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Kinonjeoshtegon First Nation is concerned that decreased water levels will increase access for wolves to islands with culturally important species and increase wolf predation.</p> <p>Kinonjeoshtegon First Nation is concerned that the Project Transmission line will impact nocturnal migrants and bird with awkward flight characteristics, known to be vulnerable to collisions with transmission lines.</p> <p>Kinonjeoshtegon First Nation is concerned about impacts to SAR bats during vegetation removals.</p> <p>Kinonjeoshtegon First Nation is concerned about Project effects on migratory birds and wildlife related to changes to lake levels on Lake St. Martin, changes to flow rates and volumes at the Narrows and through the Dauphin River.</p> <p><u>Recommendation made by Kinonjeoshtegon First Nation:</u></p> <ul style="list-style-type: none"> Kinonjeoshtegon First Nation recommends that Manitoba Infrastructure adopt a LAA that is more conservative than 1 km. <p><u>Sources:</u></p> <p>Manitoba Infrastructure 2019b</p> <p>Golder Associates 2018</p> <p>Olson et al. 2020a</p> <p>Firelight 2022</p> <p>IRTC 2022a</p> <p>IRTC 2022b</p> <p>IRTC 2022c</p> <p>IRTC 2022d</p>			<p>The distribution line is expected to be constructed in accordance with Manitoba Hydro's standard industry specifications for distribution lines (see IAAC-47).</p> <p><u>Residual Effects after Mitigation:</u> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA</p>	
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u></p> <p>Kinonjeoshtegon First Nation reported fishing sites for pickerel, jackfish, whitefish, sunfish, sauger, bass, catfish, carp, mariah, perch, sucker, and tullibee; spawning sites for multiple fish species including pickerel (walleye), sauger, jackfish, sturgeon, sucker, and whitefish; as well as catch and release areas for sunfish, sucker, and bass.</p> <p>Kinonjeoshtegon First Nation reported the use of fish processing sites; and water routes where participants travelled by boats and canoes to set nets and catch multiple species of fish.</p> <p>Kinonjeoshtegon First Nation reported subsistence and recreational fishing occur at Lake St. Martin, Dauphin River, Mantagao River, and Sturgeon Bay year-round.</p>	<p><u>Species identified by Kinonjeoshtegon First Nation:</u> walleye, lake whitefish, burbot, northern pike, sucker, perch, lake sturgeon, sunfish, sauger, bass, catfish, carp, mariah,</p> <p><u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> trout.</p> <p><u>Locations:</u> Portions of Lake Winnipeg are within the PDA. Portions of Sturgeon Bay are within the PDA. Lake St. Martin is within the PDA. Dauphin River is within</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by Kinonjeoshtegon First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Kinonjeoshtegon First Nation to occur throughout the RAA and that species commonly understood to</p>	<p>Effects regarding sediments, debris and contamination are addressed in the SWMP, SMP, PERs and Debris Management Plan. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Any storage and use of chemicals is strictly regulated and application of chemicals requires training and a permit. Sediments will be monitored, and visual inspections will be carried out as part of the SWMP and SMP and contingency mitigation measures such as silt fencing and materials to minimize bank erosion will be used, where necessary. 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be</p>

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<p>Kinonjeoshtegon First Nation reported fishing for walleye, lake whitefish, burbot, northern pike, sucker, perch, and lake sturgeon.</p> <p>Kinonjeoshtegon First Nation reported fishing at Reindeer Island.</p> <p>Kinonjeoshtegon First Nation have identified a spawning area in Lake St. George, Lake St. Andrew, and Lake St. David.</p> <p>Kinonjeoshtegon First Nation has noted that surface waters have been altered from their natural courses leading to an increase in the incidence of flooding.</p> <p>Kinonjeoshtegon First Nation indicated that degradation in surface water quality has impaired historic surface drinking water drinking sources and may be affecting fish health.</p> <p>Kinonjeoshtegon First Nation commented on reluctance to drink from various natural water sources, including Lake Winnipeg, due to contamination</p> <p>Kinonjeoshtegon First Nation reported finding fish with strange patterns, blisters, sores, discolorations and deformities.</p> <p>Kinonjeoshtegon First Nation reported damage to nets and debris in the 2011 flood.</p> <p>Kinonjeoshtegon First Nation commented on the adverse impacts to waterfront lands, shoreline habitat, reserve lands, fishing and wildlife that have been affected by the actions of Manitoba's flood infrastructure when diverting flood waters away from Winnipeg. Kinonjeoshtegon First Nation has reported experiencing tremendous ecological engineering to Lake St. Martin and the surrounding lands in the past 50 years. During this time the area has acted as an "overflow" water reservoir for passing flood waters from the Assiniboine River system into Lake Winnipeg.</p> <p>Kinonjeoshtegon First Nation reported that during the 2011 and 2014 floods, fishers reported that fish has moved off traditional habitat and catch per unit effort was much greater. Fishers also reported that spawning beds were mantled with debris and sediment, which reduced the spawning success and resulted in decreased whitefish and pickerel populations, which are still experiencing declines. Fishers also reported disruptions to spawning areas as far as Reindeer Island.</p> <p><u>Issues and Concerns:</u></p> <p>Kinonjeoshtegon First Nation expressed concern regarding groundwater and surface water.</p> <p>Kinonjeoshtegon First Nation raised concerns regarding changes in regional flows, which will affect ongoing flooding and shoreline erosion and degrading water quality and algal issues.</p>	<p>the LAA. Mantagao River is within the RAA. Lake St. Andrew, Lake St. George, and Lake St. David are outside of the RAA. Kinwow Bay, Reindeer Island and Lynx Bay is outside of the RAA.</p>	<p>be harvested by Indigenous peoples that occur within the RAA may be harvested by Kinonjeoshtegon First Nation.</p> <p>During a flood event, water flows across the land and can pick up sediments that contain chemicals such as fertilizers, pesticides and other contaminants. Under current conditions, this material flows through the Fairford River and the Dauphin River during floods. The Project will reduce the amount of overland flooding and is therefore expected to reduce the amount of contamination entering Lake Winnipeg.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality,</p>	<ul style="list-style-type: none"> • The banks of the channel will be revegetated to reduce erosion. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. • If required, at the start of operation, the water control structure gates can be gradually opened to control sediment levels, based on results of sediment monitoring. There will likely be increases in sediment concentrations at the end of the channel, but they will be managed to address water quality concerns through monitoring and flow adjustments. <p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> • Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. • Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). • Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. • Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the 	<p>monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Kinonjeoshtegon First Nation to discuss the Environmental Management Plans. A meetings was held with Kinonjeoshtegon First Nation on the following dates: September 23, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and</p>

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<p>Kinonjeoshtegon First Nation raised concerns regarding the Projects on going flooding in the region from control structures and increases in water levels on Lake Winnipeg that may cause the erosion of lake shoreline that diminishes the value of fishing.</p> <p>Kinonjeoshtegon First Nation expressed concerns regarding water quality.</p> <p>Kinonjeoshtegon First Nation documented concerns regarding fluctuating water levels, water quality degradation, the mobilization of pollutants and algal blooms in the RAA which limit the safe use of surface water.</p> <p>Kinonjeoshtegon First Nation identified concerns regarding runoff from farm fields causing impacts to water quality in the RAA.</p> <p>Kinonjeoshtegon First Nation expressed concern that aquatic ecosystem health in local waterbodies and waterways would be altered by the Project.</p> <p>Kinonjeoshtegon First Nation expressed concerns for fish spawning areas.</p> <p>Kinonjeoshtegon First Nation has expressed concerns about pesticides entering Lake Winnipeg from Lake Manitoba and agricultural lands entering Lake St. Martin.</p> <p>Kinonjeoshtegon First Nation expressed concerns regarding drinking water quality.</p> <p>Kinonjeoshtegon First Nation reported that Project has the potential to further alienate members from valued fish resources by reducing fish populations, disrupting fish habitats, altering fish behaviours and damaging equipment.</p> <p>Kinonjeoshtegon First Nation expressed concerns regarding zebra mussels.</p> <p>Kinonjeoshtegon First Nation expressed concern regarding the effects of pesticides on fish.</p> <p>Kinonjeoshtegon First Nation expressed concern that dirt and debris from the clearing of the Project ROW will change the migration pattern of the fish.</p> <p>Kinonjeoshtegon First Nation is concerned that the Project construction and operation timing will impact reproductive stages of fish, particularly causing increased TSS.</p> <p>Kinonjeoshtegon First Nation is concerned about the conclusion that residual effects to fish and fish habitat in Sturgeon Bay are not expected to occur despite the inadequacy of the modelling and baselines.</p> <p>Kinonjeoshtegon First Nation is concerned that changing the water drainage of the Birch Creek watershed and Buffalo Creek drainage base represents a significant adverse impact on how</p>		<p>increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project.</p> <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who 	<p>participation in monitoring program. No feedback has been received from Kinonjeoshtegon First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition</p>

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<p>Kinonjeoshtegon First Nation has used these lands and how it plans to use these lands.</p> <p>Kinonjeoshtegon First Nation is concerned about the omission of any parameters specific to Indigenous interests related to surface water and ground water.</p> <p>Kinonjeoshtegon First Nation is concerned that selected location of water monitoring and sampling do not mention areas of high land use or of high importance to Indigenous users in the PDA or LAA as well as the lack of discussion of traditional knowledge and how it informs the monitoring programs.</p> <p>Kinonjeoshtegon First Nation is concerned about the effects to traditional uses that could result from local effects caused by dewatering.</p> <p>Kinonjeoshtegon First Nation is concerned about Project impacts causing changes in water quality, water quantity/flow patterns, fish habitat, and fish community composition, such as declines in whitefish and increases in introduced species, and how these changes will adversely affect fish availability and distribution and how these will negatively impact subsistence and commercial fishing practices.</p> <p>Kinonjeoshtegon First Nation is concerned about an underestimation by the Project on the impacts to Indigenous fishing during Project operations and the potential adverse effects on Indigenous socio-economic conditions, culture, and the current use of lands and resources for traditional purposes.</p> <p>Kinonjeoshtegon First Nation is concerned that the Project will contribute to the spread, colonization, and introduction of AIS to waterbodies in the LAA, Lake St. Martin, Birch Creek, and the Buffalo Creek Watershed.</p> <p>Kinonjeoshtegon First Nation is concerned about the potential interactions between AIS and Project infrastructure which may support colonization by zebra mussels and Prussian carp.</p> <p>Kinonjeoshtegon First Nation is concerned about localized changes in the distribution of sediments within traditional fishing grounds.</p> <p>Kinonjeoshtegon First Nation is concerned about the nature and scale of the impact to fish and fisheries and how the overall impacts of the Project will affect Indigenous values and interests.</p> <p>Kinonjeoshtegon First Nation is concerned about the lack of recognition of fisheries as critically important to TLRU activities.</p> <p>Kinonjeoshtegon First Nation is concerned about how changes to local drainage and water flow will affect water quality for supporting a viable rights-based and commercial fishery, as well as supporting other social and cultural uses of Lake St. Martin and Sturgeon Bay in Lake Winnipeg.</p>			<p>meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p>Effects to surface water quality monitoring are addressed primarily in the response to Technical Information Request IAAC-80.</p> <p>Effects to fishing are addressed in IAAC-103 and IAAC -105.</p> <p>Surface water quality and nutrient loading are discussed in IAAC-13, IAAC-14, IAAC-65, IAAC-84 and IAAC-107</p> <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 6), after mitigation there are no adverse effects predicted to overall surface water quality in the region and the composition and volume of water being transported from Lake</p>	<p>to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Kinonjeoshtegon First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>Kinonjeoshtegon First Nation is concerned that the cumulative effects on the fishery in Lake St. Martin caused by major man-made flooding events in 2011 and 2014 are being overlooked.</p> <p>Kinonjeoshtegon First Nation is concerned that changes to the dynamics of currents, erosion, bed sediments, and turbidity in the north basin of Lake St. Martin will impact the health of the fish and fish habitat in Lake St. Martin.</p> <p>Kinonjeoshtegon First Nation is concerned that the Project will cause extensive sediment plumes and will further impact the fishery in Sturgeon Bay, already impacted by the 2011 and 2014 floods.</p> <p>Kinonjeoshtegon First Nation is concerned that sediment plume and distribution of sediment caused by the Project will impact the fish populations in Lake St. Martin and related First Nation fish harvesting rights.</p> <p>Kinonjeoshtegon First Nation is concerned about nutrient loading and additions into affected water bodies, which is directly relevant to the ecological balance in lakes and the health of fish populations in Lake St. Martin and Lake Winnipeg.</p> <p>Kinonjeoshtegon First Nation is concerned that whitefish emerging from the spawning grounds in Lake St. Martin will be carried into the LSMOC and directly into Lake Winnipeg rather than being able to use their traditional migratory route through Dauphin River to the lake because of the change in flow path.</p> <p>Kinonjeoshtegon First Nation is concerned that larvae that have not emerged from the substrates in the narrows when flood flow occurred will be subject to scouring because of the predicted increase in flow velocities through the narrows during flooding and channel operations.</p> <p>Kinonjeoshtegon First Nation is concerned about Project impacts on migratory patterns of fish species that inhabit and spawn in Lake St. Martin.</p> <p>Kinonjeoshtegon First Nation is concerned about fish stranding and winter fish kill.</p> <p>Kinonjeoshtegon First Nation is concerned about sediment transport and erosion, the reduction of lake levels in the north basin of Lake St. Martin and potential whitefish migratory disruption through the Dauphin River, and heightened differential of lake levels between the south and north Lake St. Martin during channel operations because of the Narrows serving as a hydraulic control.</p> <p>Kinonjeoshtegon First Nation is concerned about flow velocity and turbidity changes at the Narrows and impacts to whitefish spawning habitat as well as the potential loss of fish larvae to the LSMOC right after hatching.</p>			<p>Manitoba to Sturgeon Bay is not expected to be substantially altered by the Project construction or operation. As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	

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<p>Kinonjeoshtegon First Nation is concerned about the level of chlorophyll α concentration and its impact to waterbodies and the overall health of fish and fish habitat within the LAA.</p> <p>Kinonjeoshtegon First Nation is concerned about the reliability of information used to assess fish and fish habitat.</p> <p>Kinonjeoshtegon First Nation is concerned about nearshore habitats as the Project will alter lake levels in Lake St. Martin as part of its normal operations and has the potential to disrupt and alter nearshore fish habitat.</p> <p>Kinonjeoshtegon First Nation is concerned that the AEMP does not verify the predicted effects on surface water quality and fish habitat.</p> <p>Kinonjeoshtegon First Nation is concerned that the potential effects to aquatic habitat are oversimplified.</p> <p>Kinonjeoshtegon First Nation is concerned about mobilized mercury in the drainage water.</p> <p>Kinonjeoshtegon First Nation is concerned about the limited array of water quality data related to the west of the LMOC and the south of the LSMOC that may be affected by the Project.</p> <p>Kinonjeoshtegon First Nation is concerned that changes to groundwater and surface water flows caused by the Project will impact water quality.</p> <p>Kinonjeoshtegon First Nation is concerned about the water monitoring and sampling of high land use or high importance areas for Indigenous users in the PDA and LAA as well as the use of traditional knowledge in monitoring programs.</p> <p>Kinonjeoshtegon First Nation is concerned about impacts to commercial fisheries and the effects on Indigenous socioeconomic conditions, cultural, and the current use of lands and resources.</p> <p>Kinonjeoshtegon First Nation is concerned about potential Project effects to cultural experience or knowledge transitions that could result from loss of fishing opportunities in preferred, culturally important areas. Kinonjeoshtegon First Nation is concerned that the Project will increase the negative perception that the fish are unhealthy.</p> <p>Kinonjeoshtegon First Nation is concerned about how changes in local drainage and water flow will affect water quality for supporting a viable, rights-based and commercial fishers as well as supporting other social and cultural uses of Lake St. Martin and Sturgeon Bay in Lake Winnipeg, concerns exacerbated by concerns about existing cumulative effects.</p> <p>Kinonjeoshtegon First Nation is concerned about the impact of algae blooms on the condition of the existing fishery on Lake St. Martin.</p>				

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<p>Kinonjeoshtegon First Nation is concerned that Lake St. Martin is examined as a single basin lake despite the identification of a south and north basin.</p> <p>Kinonjeoshtegon First Nation is concerned about Project effects on fish related to changes to lake levels on Lake St. Martin, changes to flow rates and volumes at the Narrows and through the Dauphin River.</p> <p>Kinonjeoshtegon First Nation is concerned that changes of hydraulic flows through the Narrows and Dauphin Rivers will affect fish.</p> <p><u>Recommendations made by Kinonjeoshtegon First Nation:</u></p> <ul style="list-style-type: none"> • Kinonjeoshtegon First Nation recommends the monitoring of all mitigation efforts should proceed until a one-in-ten year flood event has occurred, and alterations to the monitoring program should only occur following confirmation of the effectiveness of the mitigation measures following that flood event. • Kinonjeoshtegon First Nation recommends identifying the number of Indigenous respondents for the Groundwater and Surface Water Management Plans. • Kinonjeoshtegon First Nation requests that Manitoba Infrastructure engage with Kinonjeoshtegon First Nation in a water quality workshop to identify Kinonjeoshtegon First Nation's values and cultural standards related to water quality in Lake St. Martin. • Kinonjeoshtegon First Nation recommends the involvement in Indigenous FSC and commercial fish harvesters in the development and implementation of any monitoring and follow-up program to see how changes are occurring and how meaningful they are. • Kinonjeoshtegon First Nation requests the inclusion of indicators surrounding fish and fishing that are meaningful to Indigenous groups to understand Project impacts. • Kinonjeoshtegon First Nation First Nation recommends a water quality station that includes collections to determine lake redox potential must be established in the south basin of Lake Manitoba. • Kinonjeoshtegon First Nation recommends that the SWEMP and AEMP monitoring programs in the south basin of Lake Manitoba be long term rather than a two-year sampling program. • Kinonjeoshtegon First Nation requests that Manitoba Infrastructure run analysis using years when the Potage Diversion has been operated and include the 2014/2015 flood years. 				

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<p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program for the Project</p> <p>Manitoba Infrastructure Indigenous Engagement Program for the Project – Appendix 5A.10</p> <p>Golder Associates 2018</p> <p>Olson et al. 2020a</p> <p>Firelight 2022</p> <p>IRTC 2022a</p> <p>IRTC 2022b</p> <p>IRTC 2022c</p> <p>IRTC 2022d</p>				
Plants and Plant Harvesting				
<p><u>Existing Conditions:</u></p> <p>Kinonjeoshtegon First Nation reported harvesting blueberry, highbush cranberry, Labrador tea, raspberry, strawberry, Saskatoon berry, <i>weeke</i> (<i>weke</i>), muskeg tea, snakeroot, sweetgrass, cedar, balsam poplar, bearberry, Canada gooseberry, choke cherry, jackpine, juniper, Labrador tea, sage, Seneca root, tamarack, tobacco, lady slipper, red willow, moss berry, kinnikinic berries.</p> <p>Kinonjeoshtegon First Nation reported that cranberries, raspberries and moss berries are harvested at Cranberry Creek and tobacco can be found at Moosehorn and Ashern. <i>Weekay</i> (<i>weke</i>) is harvested at Hay Point. Sage is harvested on the shore of Lake Manitoba and kinnikinic berries are harvested at the Narrows.</p> <p>Kinonjeoshtegon First Nation also reported harvesting locations at Fairford, Kinwow Bay, Silver Bay, Big Dog Lake, Gypsumville and Duck Mountain</p> <p>Kinonjeoshtegon First Nation reported gathering berries in the RAA, and indicated that the flooding of Lake St. Martin has resulted in impacts to the harvest of medicinal herbs and plants. Kinonjeoshtegon First Nation reported that berry-picking often occurs as opportunities arise, whether while travelling or while out on the land conducting other activities.</p> <p>Kinonjeoshtegon First Nation reported that human disturbance and activity have moreover affected the strength of medicines.</p> <p>Kinonjeoshtegon First Nation reported that plants used for food, medicine, and other purposes such as firewood, have been impacted by a variety of stressors that include flooding, privatisation of property and the installation of barriers,</p>	<p><u>Species identified by Kinonjeoshtegon First Nation:</u> blueberry, highbush cranberry, Labrador tea, raspberry, strawberry, Saskatoon berry, <i>weeke</i> (<i>weekay</i>, <i>weke</i>), muskeg tea, snakeroot, sweetgrass, cedar, balsam poplar, bearberry, Canada gooseberry, chokecherry, jackpine, juniper, sage, Seneca root, tamarack, tobacco.</p> <p><u>Other plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, giant hyssop, baneberry, speckled alder, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugle-weed, Canada mayflower, wild mint, morel, yellow evening primrose, self-heal, pin cherry, sand cherry, plum, bracken (fiddlehead), wintergreen, bur oak, wild black currant, red currant, prairie rose, wild rose, cloud berry, dewberry, blackberry, three-toed</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>Manitoba Infrastructure acknowledges that the information about use of plants and plant harvesting by Kinonjeoshtegon First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use plants and plant harvesting by Kinonjeoshtegon First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Kinonjeoshtegon First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plants and plant harvesting, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component. The RVMP includes weed control measures and herbicide application (e.g., glyphosate) will be required in some instances. Integrated approaches using mechanical treatment and active revegetation will be used where possible. Areas of existing weed infestation will likely require broadcast herbicide application. Herbicide application will not occur within 30 m of waterbodies and fish habitat and will be handled under a pesticide permit.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also</p>

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<p>infrastructure developments including those used for flood control, and human activity.</p> <p>Kinonjeoshtegon First Nation reported that traditional medicines are used to treat many ailments.</p> <p>Kinonjeoshtegon First Nation reported that the quantity of valued plants and medicines have declined, including berries and firewood.</p> <p>Kinonjeoshtegon First Nation reported the abundance of medicine plants has also decreased. tobacco, cedar, and <i>weekay (weke)</i> are not as plentiful as they once were, and harvesters have to travel farther in order to find medicines.</p> <p>Kinonjeoshtegon First Nation reported that the ROW clearing and the Road Project clearing stripped the land down to the soil and plants, berries and medicines have been destroyed, noting that the plants on the edges of the clearing will be polluted by the traffic and chemicals sprayed along the cleared areas.</p> <p>Kinonjeoshtegon First Nation reported that they do not gather medicine, berries or plants that are polluted or are near developments because these plants have lost their potency and they are no longer sacred.</p> <p><u>Issues and Concerns:</u></p> <p>Kinonjeoshtegon First Nation expressed concern that traditional berry picking and medicine harvest areas may be affected by local flooding.</p> <p>Kinonjeoshtegon First Nation expressed concerns about the potential for changes in water flows to affect medicinal plants.</p> <p>Kinonjeoshtegon First Nation is concerned about the risk of erosion created by altered water flows and levels degrading plant harvesting sites and flooding medicine habitats as a result of the Project.</p> <p>Kinonjeoshtegon First Nation expressed concern that any clearing will affect medicines.</p> <p>Kinonjeoshtegon First Nation is concerned about impacts to vegetation growth and ability to harvest medicines, loss of berry plants, concerns about the use of glyphosate for weed control, and loss of harvesting areas.</p> <p>Kinonjeoshtegon First Nation is concerned about the potential spread of invasive species caused by the Project.</p> <p>Kinonjeoshtegon First Nation is concerned about impacts to sensitive areas outside the assessment area and impacts to unidentified important landscape features and soils affected by the Project.</p> <p>Kinonjeoshtegon First Nation is concerned that sustained reductions in water levels, the intersecting of local drainages adjacent to the channels, and reduction in watershed drainage</p>	<p>cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, red clover, dwarf blueberry, bog blueberry, cranberry, logan berry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> The proposed Lake Manitoba Channel is in the PDA. Portions of Lake Manitoba are in the PDA. The Narrows are within the PDA. Cranberry Creek, Fairford, Moosehorn, Ashern, Dog Lake and Silver Bay are in the LAA. Hay Point, Kinwow Bay, Gypsumville and Duck Mountain are outside of the RAA.</p>	<p>including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>plant species management, and wildlife habitat restoration</p> <ul style="list-style-type: none"> As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. 	<p>been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7). As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Kinonjeoshtegon First Nation to discuss the Environmental Management Plans. A meetings was held with Kinonjeoshtegon First Nation on the following dates: September 23, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Kinonjeoshtegon First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring</p>

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<p>areas caused by the construction of the Project will impact the overall quantity of shoreline and riparian habitat.</p> <p><u>Recommendations made by Kinonjeoshtegon First Nation:</u></p> <ul style="list-style-type: none"> Kinonjeoshtegon First Nation encourages Manitoba Infrastructure to inform Kinonjeoshtegon First Nation communities if a wildlife spreads beyond the PDA which could put land users or communities at risk. <p><u>Sources:</u></p> <p>Golder Associates 2018</p> <p>Olson et. al 2020a</p> <p>IRTC 2022a</p> <p>IRTC 2022b</p> <p>IRTC 2022c</p> <p>IRTC 2022d</p>			<p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE R, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Kinonjeoshtegon First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Travel Routes				
<p><u>Existing Conditions:</u></p> <p>Kinonjeoshtegon First Nation reported the existence of trails and access routes, which have not been recorded.</p> <p>Kinonjeoshtegon First Nation reported utilizing a network of trails and water routes along the shorelines of Lake Winnipeg.</p> <p>Kinonjeoshtegon First Nation reported the use of water routes where participants travelled by boats and canoes to set nets and catch multiple species of fish.</p> <p>Kinonjeoshtegon First Nation reported that travel routes include trails to haul water.</p> <p>Kinonjeoshtegon First Nation reported the 2011 flooding event prevented the Dauphin River from freezing entirely, which inhibited them from travelling along the river in the winter, and resulted in there being too much water to travel the river in the spring and summer.</p> <p>Kinonjeoshtegon First Nation reported that Cultural Continuity values include snowmobile routes and historical wagon routes used to travel across the territory.</p> <p><u>Issues and Concerns:</u></p> <p>Kinonjeoshtegon First Nation expressed concerns regarding Lake St. Martin Access Road Project including, the road's location, whether or not it will be gated, and potential for impacts to road maintenance.</p> <p>Kinonjeoshtegon First Nation is concerned about the Project's potential effects on cultural continuity and loss of trails.</p> <p>Kinonjeoshtegon First Nation is concerned that the Project will adversely impact the heritage value associated with the Fairford Trail and its historical function as a travel route and Watchorn Creek crossing.</p> <p><u>Sources:</u></p> <p>Golder Associates 2018</p> <p>Olson et al. 2020a</p> <p>IRTC 2022a</p> <p>IRTC 2022b</p> <p>IRTC 2022d</p>	<p><u>Locations:</u> Portions of Lake Winnipeg and Fairford River are within the PDA. The Lake St. Martin Access Road is in the LAA. Watchorn Creek is within the LAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>Manitoba Infrastructure acknowledges that the information about use of travel routes by Kinonjeoshtegon First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of travel routes harvesting by Kinonjeoshtegon First Nation to occur throughout the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Kinonjeoshtegon First Nation to discuss the Environmental Management Plans. A meeting was held with Kinonjeoshtegon First Nation on the following dates: September 23, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
May 31, 2022

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<ul style="list-style-type: none"> As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed at specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Kinonjeoshtegon First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDJ to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDJ representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDJ to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDJ are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDJ to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
				<p>workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Kinonjeoshtegon First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p><u>Existing Conditions:</u></p> <p>Kinonjeoshtegon First Nation reported the use of cabins and campsites northeast of the RAA.</p> <p>Kinonjeoshtegon First Nation reported camping at McBeth Point, Kinwow Bay, and Lake St. Martin.</p> <p>Kinonjeoshtegon First Nation mentioned unmarked graves at the northwest arm of Kinwow Bay and a powwow site on Lake Manitoba.</p> <p>Kinonjeoshtegon First Nation indicated the existence of gravesites located along the shore of lake Winnipeg and both sides of the Jackhead River.</p> <p>Kinonjeoshtegon First Nation reported that Cultural Continuity values including gathering sites for community events, and camping sites.</p> <p><u>Issues and Concerns:</u></p> <p>Kinonjeoshtegon First Nation raised concerns regarding ongoing flooding in the region from control structures and increases in water levels on Lake Winnipeg that may cause the erosion of lake shoreline that diminishes the value of camping.</p> <p>Kinonjeoshtegon First Nation raised concerns about the effects of Project-related flooding on important sites, such as ceremonial sites and unmarked graves.</p> <p>Kinonjeoshtegon First Nation is concerned with the limitation of land valuation to agricultural activities and does not include the value of land to Indigenous groups and its importance in traditional activities.</p>	<p><u>Locations:</u> Portions of the shoreline of Lake Winnipeg are within the PDA. Lake St. Martin is in the PDA. Jackhead River is outside of the RAA. McBeth Point and Kinwow Bay are outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>Manitoba Infrastructure acknowledges that the information about use of habitation, cultural and spiritual sites and areas by Kinonjeoshtegon First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of habitation, cultural and spiritual sites and areas by Kinonjeoshtegon First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Kinonjeoshtegon First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> The HRIA identified existing or potential sites and prescribes site specific mitigation. The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. The EPP identifies specific existing and potential sites and specific measures to protect them. The AMP controls access around the Project construction area. Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized</p>

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<p>Kinonjeoshtegon First Nation is concerned about the Project-related changes in water levels, including reduction in water levels, has the potential to interact with other elements of cultural heritage, including use values and associated spiritual and cultural values.</p> <p>Kinonjeoshtegon First Nation is concerned about the Project's potential effects on cultural continuity, such as disruption of cultural transmission, reduced opportunities to spend time on the land and, loss of trails, burial sites, and habitation sites.</p> <p>Kinonjeoshtegon First Nation is concerned about the ability to be involved in the monitoring and mitigation of heritage impacts.</p> <p>Kinonjeoshtegon First Nation is concerned about the excavation and removal of heritage resources from the territory which will result in a significant residual effect to Kinonjeoshtegon First Nation's cultural heritage.</p> <p>Kinonjeoshtegon First Nation is concerned about being notified or involved in heritage mitigation measures in event that a channel is breached.</p> <p>Kinonjeoshtegon First Nation is concerned about the residual effects on Indigenous groups' cultural and spiritual connection to sites which have been disturbed or destroyed due to pre-construction archaeological salvage excavations.</p> <p>Kinonjeoshtegon First Nation is concerned about Project effects on cultural heritage and current use related to changes to lake levels on Lake St. Martin, changes to flow rates and volumes at the Narrows and through the Dauphin River.</p> <p>Kinonjeoshtegon First Nation is concerned about the Proponent's decision to excavate a regionally significant cultural heritage site rather than preserve and protect it.</p> <p>Kinonjeoshtegon First Nation is concerned that changes in water levels caused by the Project in the south basin of Lake St. Martin will impact cultural heritage.</p> <p><u>Sources:</u></p> <p>Golder Associates 2018</p> <p>Olson et al. 2020a</p> <p>Firelight 2022</p> <p>IRTC 2022a</p> <p>IRTC 2022b</p> <p>IRTC 2022d</p>		<p>the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Apart from the two known cemeteries, no burials or unmarked graves have been identified or reported in the RAA. Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Kinonjeoshtegon First Nation to discuss the Environmental Management Plans. A meetings was held with Kinonjeoshtegon First Nation on the following dates: September 23, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Kinonjeoshtegon First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the</p>

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				<p>Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Kinonjeoshtegon First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
<p>Lake Manitoba First Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u> Lake Manitoba First Nation reported hunting and trapping moose, white-tailed deer, muskrat, caribou, wolf, coyote, red fox, lynx, squirrel, rabbit, American marten, fisher, short-tailed weasel, long-tailed weasel, mink, river otter, beaver, Canada goose, geese, ducks, ruffed grouse, sharp-tailed grouse, partridge, grouse, prairie chicken. Lake Manitoba First Nation reported that moose and white-tailed deer are important species for subsistence. Lake Manitoba First Nation reported members hunt and trap in Buffalo Lake Bog. Lake Manitoba First Nation that hunting and trapping occurs in and around Lake Manitoba.</p>	<p><u>Species Identified by Lake Manitoba First Nation:</u> moose, white-tailed deer, muskrat, caribou, wolf, coyote, red fox, lynx, squirrel, rabbit, American marten, fisher, short-tailed weasel, long-tailed weasel, mink, river otter, beaver, Canada goose, geese, ducks, ruffed grouse, sharp-tailed grouse, partridge, grouse, prairie chicken, yellow rail, least bittern, snapping turtle, eastern whip-poor-will, red-headed woodpecker, bat. <u>Other species in the RAA commonly understood to be</u></p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use. Manitoba Infrastructure acknowledges that the information about hunting and trapping by Lake Manitoba First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Lake Manitoba First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project. For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p>

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<p>Lake Manitoba First Nation indicated that trapping takes places in the RAA and LAA around Lake Manitoba, as well as to the south and east of the proposed EOC access road.</p> <p>Lake Manitoba First Nation reported that high water on Lake St. Martin flooded out muskrat trapping areas, trappers have lost income, and those trappers need to be compensated.</p> <p>Lake Manitoba First Nation reported that that geese and ducks are valued for meat and eggs.</p> <p>Lake Manitoba First Nation reported that yellow rail, least bittern, snapping turtle, eastern whip-poor-will, bat, and red-headed woodpecker are significant species.</p> <p>Lake Manitoba First Nation reported that since flooding in 2011, there has been a decline in the presence of moose, deer, beaver and muskrats.</p> <p>Lake Manitoba First Nation reported that there has been a general decline in hunting due to impacts from industrial development, agricultural development, introduced species, hunting restrictions, land privatization, clearing and contamination of water and food sources.</p> <p>Lake Manitoba First Nation is concerned about the clearing of trees for the Project ROW and Road Project.</p> <p>Lake Manitoba First Nation reported that the Road Project is on a high ground where animals use to go for protection. However, animals are smart and they need protection and camouflage. They won't go there now with it all cleared.</p> <p>Lake Manitoba First Nation reported that they believe water quality, fish and wildlife, and plant communities have declined to the point where it is difficult, if not impossible, to enjoy their traditional pursuits.</p> <p>Lake Manitoba First Nation reported that the 2011 flood devastated many habitats, preventing fishing, hunting, trapping, gathering, berry picking, and just being out on the land.</p> <p>Lake Manitoba First Nation reported that many Indigenous anglers, hunters and trappers must travel long distances to harvest fish and game, gather plants and medicines, or simply to be together on the land or water.</p> <p><u>Issues and Concerns:</u></p> <p>Lake Manitoba First Nation raised concerns regarding the Project's ongoing flooding in the region from control structures and increases in water levels on Lake Winnipeg that may cause and the erosion of lake shoreline that diminishes the value of hunting.</p> <p>Lake Manitoba First Nation expressed concern that local flooding may interfere with local hunting and trapping.</p>	<p><u>harvested by Indigenous groups:</u> mule deer, elk, black bear, wolverine, mallard, bald eagle.</p> <p><u>Locations:</u> Portions of Lake Manitoba are within the PDA. Lake St. Martin is within the PDA. The Narrows are within the PDA. Buffalo Lake is within the LAA. Idylwild Road and the EOC Access Road is within the LAA. The Dauphin River is within the LAA. Mantag Creek (Mantago River) is within the RAA. Kinwow Bay and Lynx Bay are outside of the RAA.</p>	<p>the RAA may be hunted or trapped by Lake Manitoba First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<ul style="list-style-type: none"> As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. 	<p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>A sharp-tailed grouse lek survey will be completed in 2022 identify any leks (i.e., traditional mating sites) that have the potential to interact with the Project.</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Lake Manitoba First Nation to discuss the Environmental Management Plans. A meetings was held with Lake Manitoba First Nation on the following dates: September 21, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Lake Manitoba First Nation to date.</p>

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<p>Lake Manitoba First Nation expressed concerns about adverse impacts on wildlife from contaminated water.</p> <p>Lake Manitoba First Nation expressed concern that access road construction has the potential to disturb wildlife.</p> <p>Lake Manitoba First Nation stated that the loss of valued hunting and trapping areas is key concern.</p> <p>Lake Manitoba First Nation is concerned about the 1 km LAA, as it does not capture the zone of influence for species of importance to Indigenous groups, such as moose.</p> <p>Lake Manitoba First Nation is concerned about the lack of the required SAR presence/absence surveys.</p> <p>Lake Manitoba First Nation is concerned about if offsetting and compensation measures will be applied in relation to impacts to all wildlife, including SAR.</p> <p>Lake Manitoba First Nation is concerned about adverse effects to migratory birds impacted by the Project's reduction of lake water levels in Lake St. Martin which will result in changes to flow volumes and velocities through the Narrows and Dauphin River which support local movement and seasonal habitat of migratory birds as well as changes to shoreline habitat and fish and fish habitat that supports the seasonal habitat of migratory birds.</p> <p>Lake Manitoba First Nation is concerned about the lack of information about critical lifecycle periods for yellow rail, least bittern, snapping turtle, eastern whip-poor-will, and red-headed woodpecker.</p> <p>Lake Manitoba First Nation is concerned about the use and management of road salt.</p> <p>Lake Manitoba First Nation is concerned about reduced habitat use and survival of migratory birds resulting from the release of harmful substances.</p> <p>Lake Manitoba First Nation expressed concern about the likelihood of salvaged/ relocated or retained snags falling over, impacting the effectiveness of red-headed woodpecker mitigation measures.</p> <p>Lake Manitoba First Nation expressed concerns about the mortality of culturally important large mammal and furbearers that den or burrow and are vulnerable to Project vegetation clearing and ground disturbance.</p> <p>Lake Manitoba First Nation expressed concern about the timing of the Project changes and seasonality of habitat use by migratory birds and SAR.</p> <p>Lake Manitoba First Nation is concerned about the quality and functionality of wetlands impacted by the Project.</p>			<ul style="list-style-type: none"> Clearing will not occur between April 1 and August 31 to avoid disturbance to nesting birds and other wildlife (Chapter 8, Section 8.3). Terrestrial buffers, as identified by the Manitoba Conservation Data Centre's Recommended Development Setback Distances from Birds and/or MSDs Forest Management Guidelines for Terrestrial Buffers will be adhered to for all applicable sites (Chapter 8, Section 8.3; PERS, Section 2.9.1) If construction is scheduled to occur within the nesting period for owls and raptors (March 1 to August 31), a nest survey may be conducted by a qualified wildlife biologist if warranted. In the event an active nest is found, it will be subject to site-specific mitigation measures (i.e., clearly marked protective buffer around the nest and/or non-intrusive monitoring) (Chapter 8, Section 8.3). <p>The Red-headed Woodpecker and Eastern Whip-poor-will Habitat Mitigation Plans are not intended to be offset or compensation plans, but instead are species-specific habitat enhancement plans. The Red-headed Woodpecker Habitat Mitigation Plan includes measures to enhance the edges of the LMOC with shrubs and snags that will benefit not only red-headed woodpecker, but also other wildlife including species of cultural importance such as grouse, snowshoe hare, and red fox. Along the LSMOC, the Eastern Whip-poor-will Habitat Mitigation Plan describes how shrub and tree cover plantings will be added to the edges of the ROW where upland habitat (i.e., forest) exists. These plantings will provide habitat for eastern whip-poor-will and other animals including birds and furbearers.</p> <p>Manitoba Transportation and Infrastructure will comply with the Migratory Birds Convention Act, 1994 and follow prohibitions, including, but not limited to, avoiding the deposition of harmful substances in wetlands frequented by migratory birds (see IAAC-50).</p> <p>Additionally, BMPs described in the PERs and CEMP will be applied to all Project components and will include plans for hazardous material transportation and management, emergency response (i.e., spills), dust control, working in or near water, petroleum storage and equipment fueling and servicing, and erosion and sedimentation control. The PERs and the draft</p>	<p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement</p>

**LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT
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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
May 31, 2022

Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Lake Manitoba First Nation is concerned that the culturally important species have not been adequately identified.</p> <p>Lake Manitoba First Nation is concerned about what impacts of the Project will have on Lake Manitoba First Nation's ability to hunt specific species, e.g., moose as well as the Project consideration of effects on preferred species for trapping such as muskrats.</p> <p>Lake Manitoba First Nation is concerned about whether and how Indigenous Knowledge was incorporated into understanding the impact pathways related to wildlife species or habitat.</p> <p>Lake Manitoba First Nation is concerned that species uniquely susceptible to morality effects have not been identified by the Proponent.</p> <p>Lake Manitoba First Nation is concerned about the use of gates meant to reduce hunting pressure impacts Indigenous uses and access.</p> <p>Lake Manitoba First Nation is concerned about the implication of Project activities on beavers.</p> <p>Lake Manitoba First Nation is concerned about the direct and indirect impacts of the Project on wildlife from habitat fragmentation.</p> <p>Lake Manitoba First Nation is concerned about wildlife being willing or able to cross the channel as well as the residual effects and significance of the effects on all culturally important species movement,</p> <p>Lake Manitoba First Nation is concerned about the amount of indirect habitat loss and alteration due to the Project.</p> <p>Lake Manitoba First Nation is concerned about the effects of changes to habitat on non-migratory birds, particularly species of cultural importance.</p> <p>Lake Manitoba First Nation is concerned that decreased water levels will increase access for wolves to islands with culturally important species and increase wolf predation.</p> <p>Lake Manitoba First Nation is concerned that the Project Transmission line will impact nocturnal migrants and bird with awkward flight characteristics, known to be vulnerable to collisions with transmission lines.</p> <p>Lake Manitoba First Nation is concerned about impacts to SAR bats during vegetation removals.</p> <p>Lake Manitoba First Nation is concerned about Project effects on migratory birds and wildlife related to changes to lake levels on Lake St. Martin, changes to flow rates and volumes at the Narrows and through the Dauphin River.</p> <p><u>Recommendation made by Lake Manitoba First Nation:</u></p>			<p>Dust Control Plan (see Attachment 1 – Updated Environmental Management Plans) stipulate dust control application requirements and the PERs and Manitoba Environmental Accident Reporting Regulation stipulate reporting requirements and response measures for hydrocarbons and other products (e.g., see PER 2.5.2; Attachment 1 – Updated Environmental Management Plans). The road will be operated and maintained in a manner consistent with Manitoba Transportation and Infrastructure's practice for the current PR 239 and other public roads throughout the Province of Manitoba. Based on the mitigation measures and BMPs described above, and the limited interaction of the road realignment with wetland habitat, potential effects can be avoided or reduced.</p> <p>The Red-headed Woodpecker Habitat Mitigation Plan contains a nest structure survey that will be used to assess the effectiveness of these mitigation measures by monitoring the structural integrity of salvaged decadent trees and artificial nest boxes.</p> <p>The distribution line is expected to be constructed in accordance with Manitoba Hydro's standard industry specifications for distribution lines (see IAAC-47).</p> <p>Part a) of the formal response to IAAC-122 explains how TLRU information was incorporated into the environmental assessment process for the Project.</p> <p>A fulsome list of culturally important wildlife species identified by Lake Manitoba First Nation through the Indigenous consultation and engagement program or a review of publicly available literature is available in IAAC-87 (Table 87-1).</p> <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA</p>	<p>with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Lake Manitoba First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<ul style="list-style-type: none"> Lake Manitoba First Nation recommends that Manitoba Infrastructure adopt a LAA that is more conservative than 1 km. <p><u>Sources:</u> Indigenous Engagement Program – Appendix 5A.11 IRTC 2022a IRTC 2022b IRTC 2022c IRTC 2022d Manitoba Infrastructure 2019b Golder Associates 2018 Olson et al. 2020a Wagner 2020. Firelight 2022</p>				
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u> Lake Manitoba First Nation reported subsistence and recreational fishing occur at Lake St. Martin, Dauphin River, Mantagao River, and Sturgeon Bay year-round. Lake Manitoba First Nation reported fishing for northern pike, walleye (pickerel), and lake whitefish. Lake Manitoba First Nation reported fishing sites for pickerel, jackfish, whitefish, sunfish, sauger, bass, catfish, carp, mariah, perch, sucker, and tullibee; spawning sites for multiple fish species including pickerel, sauger, jackfish, sturgeon, sucker, and whitefish; as well as, catch and release areas for sunfish, sucker, and bass. Lake Manitoba First Nation reported the use of fish processing sites; and water routes where participants travelled by boats and canoes to set nets and catch multiple species of fish. Lake Manitoba First Nation indicated that fishing takes place in the PDA, including within the Lake Manitoba channel and in Lake Winnipeg. Lake Manitoba First Nation reported spawning areas at Bear Creek and Lake St. Martin narrows. Lake Manitoba First Nation reported fishing at Reindeer Island. Lake Manitoba First Nation has noted that surface waters have been altered from their natural courses leading to an increase in the incidence of flooding.</p>	<p><u>Fish species Identified by Lake Manitoba First Nation:</u> northern pike (jackfish), walleye (pickerel), lake whitefish, sucker, sunfish, sturgeon, sauger, bass, catfish, carp, mariah, perch, <u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> burbot, trout. <u>Locations:</u> Portions of Lake Winnipeg are within the PDA. Portions of Sturgeon Bay are within the PDA. Lake St. Martin is within the PDA. Portions of Lake Manitoba is within the PDA. Lake St. Martin Narrows is in the PDA. Dauphin River is within the LAA. Birch Creek is within the LAA. Big Buffalo Lake is in the LAA. Bear Creek is within the LAA. The Mantagao River is within the RAA. Reindeer Island is outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use. Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by Lake Manitoba First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Lake Manitoba First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Lake Manitoba First Nation. While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat. The Project will remove traditionally harvested plant species from the PDA and/or affect</p>	<p>Effects regarding contamination/water quality are addressed in the SWMP, PERs, and SMP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Any storage and use of chemicals is strictly regulated and application of chemicals requires training and a permit. Sediments will be monitored, and visual inspections will be carried out as part of the SWMP and SMP and contingency mitigation measures such as silt fencing and materials to minimize bank erosion will be used, where necessary. The banks of the channel will be revegetated to reduce erosion. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. If required, at the start of operation, the water control structure gates can be gradually opened to control sediment levels, based on results of sediment monitoring. There will likely be increases in sediment concentrations at the end of the channel, but they will be managed to address water quality concerns through monitoring and flow adjustments. 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project. For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP. The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish. During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project</p>

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<p>Lake Manitoba First Nation indicated that degradation in surface water quality has impaired historic surface drinking water drinking sources and may be affecting fish health.</p> <p>Lake Manitoba First Nation commented on reluctance to drink from various natural water sources, including Lake Winnipeg, due to contamination.</p> <p>Lake Manitoba First Nation reported that the 2011 flood devastated many habitats, preventing fishing, hunting, trapping, gathering, berry picking, and just being out on the land.</p> <p>Lake Manitoba First Nation commented on the adverse impacts to waterfront lands, shoreline habitat, reserve lands, fishing and wildlife that have been affected by the actions of Manitoba's flood infrastructure when diverting flood waters away from Winnipeg. Lake Manitoba First Nation has reported experiencing tremendous ecological engineering to Lake St. Martin and the surrounding lands in the past 50 years. During this time the area has acted as an "overflow" water reservoir for passing flood waters from the Assiniboine River system into Lake Winnipeg.</p> <p>Lake Manitoba First Nation reported that during the 2011 and 2014 floods, fishers reported that fish has moved off traditional habitat and catch per unit effort was much greater. Fishers also reported that spawning beds were mantled with debris and sediment, which reduced the spawning success and resulted in decreased whitefish and pickerel populations, which are still experiencing declines. Fishers also reported disruptions to spawning areas as far as Reindeer Island</p> <p><u>Issues and Concerns:</u></p> <p>Lake Manitoba First Nation expressed concern regarding groundwater and surface water.</p> <p>Lake Manitoba First Nation raised concerns regarding changes in regional flows which will affect ongoing flooding and shoreline erosion and degrading water quality and algal issues.</p> <p>Lake Manitoba First Nation raised concerns regarding the Projects on going flooding in the region from control structures and increases in water levels on Lake Winnipeg that may cause the erosion of lake shoreline that diminishes the value of fishing.</p> <p>Lake Manitoba First Nation is concerned about unwanted species (including zebra mussels) from Lake Winnipeg getting into Lake Manitoba.</p> <p>Lake Manitoba First Nation expressed concerns regarding water quality. Manitoba First Nation documented concerns regarding fluctuating water levels, water quality degradation, the mobilization of pollutants and algal blooms in the RAA which limit the safe use of surface water.</p>		<p>the distribution and abundance of important species in the LAA.</p> <p>Key conclusions of the EIS and recent water budget analysis are that the quantities of groundwater currently discharged into surface water features, including at observable artesian spring sites, are very small compared to surface water flow contributions. Changes in surface water flows due to changes in groundwater discharge due to the Project would be too small to practically measure or detect with hydrological monitoring (i.e., stream flow monitoring). Changes in seepage may be inferred by monitoring changes in groundwater levels (i.e., aquifer piezometric pressures) or potentially localized changes in vegetation. Monitoring of these features is the primary focus of proposed management plans.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways..</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality,</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and 	<p>updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Lake Manitoba First Nation to discuss the Environmental Management Plans. A meetings was held with Lake Manitoba First Nation on the following dates: September 21, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Lake Manitoba First Nation.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and</p>

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<p>Lake Manitoba First Nation identified concerns regarding runoff from farm fields causing impacts to water quality in the RAA.</p> <p>Lake Manitoba First Nation expressed concern that aquatic ecosystem health in local waterbodies and waterways would be altered by the Project.</p> <p>Lake Manitoba First Nation expressed concerns for fish spawning areas.</p> <p>Lake Manitoba First Nation expressed concerns regarding drinking water quality.</p> <p>Lake Manitoba First Nation expressed concerns about the potential for changes in water flows to affect fish spawning areas and medicinal plants.</p> <p>Lake Manitoba First Nation is concerned that the Project construction and operation timing will impact reproductive stages of fish, particularly causing increased TSS.</p> <p>Lake Manitoba First Nation is concerned about the conclusion that residual effects to fish and fish habitat in Sturgeon Bay are not expected to occur despite the inadequacy of the modelling and baselines.</p> <p>Lake Manitoba First Nation is concerned that changing the water drainage of the Birch Creek watershed and Buffalo Creek drainage base represents a significant adverse impact on how Lake Manitoba First Nation has used these lands and how it plans to use these lands.</p> <p>Lake Manitoba First Nation is concerned about the omission of any parameters specific to Indigenous interests related to surface water and ground water.</p> <p>Lake Manitoba First Nation is concerned that selected location of water monitoring and sampling do not mention areas of high land use or of high importance to Indigenous users in the PDA or LAA as well as the lack of discussion of traditional knowledge and how it informs the monitoring programs.</p> <p>Lake Manitoba First Nation is concerned about the effects to traditional uses that could result from local effects caused by dewatering.</p> <p>Lake Manitoba First Nation is concerned about Project impacts causing changes in water quality, water quantity/flow patterns, fish habitat, and fish community composition, such as declines in whitefish and increases in introduced species, and how these changes will adversely affect fish availability and distribution and how these will negatively impact subsistence and commercial fishing practices.</p> <p>Lake Manitoba First Nation is concerned about an underestimation by the Project on the impacts to Indigenous fishing during Project operations and the potential adverse</p>		<p>increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas can include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided.</p> <ul style="list-style-type: none"> Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. The majority of Project channel excavation and construction will be conducted "in the dry" and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and 	<p>will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE R, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Lake Manitoba First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>effects on Indigenous socio-economic conditions, culture, and the current use of lands and resources for traditional purposes.</p> <p>Lake Manitoba First Nation is concerned that the Project will contribute to the spread, colonization, and introduction of AIS to waterbodies in the LAA, Lake St. Martin, Birch Creek, and the Buffalo Creek Watershed.</p> <p>Lake Manitoba First Nation is concerned about the potential interactions between AIS and Project infrastructure which may support colonization by zebra mussels and Prussian carp.</p> <p>Lake Manitoba First Nation is concerned about localized changes in the distribution of sediments within traditional fishing grounds.</p> <p>Lake Manitoba First Nation is concerned about the nature and scale of the impact to fish and fisheries and how the overall impacts of the Project will affect Indigenous values and interests.</p> <p>Lake Manitoba First Nation is concerned about the lack of recognition of fisheries as critically important to TLRU activities.</p> <p>Lake Manitoba First Nation is concerned about how changes to local drainage and water flow will affect water quality for supporting a viable rights-based and commercial fishery, as well as supporting other social and cultural uses of Lake St. Martin and Sturgeon Bay in Lake Winnipeg.</p> <p>Lake Manitoba First Nation is concerned that the cumulative effects on the fishery in Lake St. Martin caused by major man-made flooding events in 2011 and 2014 are being overlooked.</p> <p>Lake Manitoba First Nation is concerned that changes to the dynamics of currents, erosion, bed sediments, and turbidity in the north basin of Lake St. Martin will impact the health of the fish and fish habitat in Lake St. Martin.</p> <p>Lake Manitoba First Nation is concerned that the Project will cause extensive sediment plumes and will further impact the fishery in Sturgeon Bay, already impacted by the 2011 and 2014 floods</p> <p>Lake Manitoba First Nation is concerned that sediment plume and distribution of sediment caused by the Project will impact the fish populations in Lake St. Martin and related First Nation fish harvesting rights.</p> <p>Lake Manitoba First Nation is concerned about nutrient loading and additions into affected water bodies, which is directly relevant to the ecological balance in lakes and the health of fish populations in Lake St. Martin and Lake Winnipeg.</p> <p>Lake Manitoba First Nation is concerned that whitefish emerging from the spawning grounds in Lake St. Martin will be carried into the LSMOC and directly into Lake Winnipeg rather</p>			<p>applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p>Effects to surface water quality monitoring are addressed in IAAC-80.</p> <p>Effects to fishing are addressed in IAAC-103 and IAAC -105.</p> <p>Surface water quality and nutrient loading are discussed in IAAC-13, IAAC-14, IAAC-65, IAAC-84 and IAAC-107</p> <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS</p>	

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<p>than being able to use their traditional migratory route through Dauphin River to the lake because of the change in flow path.</p> <p>Lake Manitoba First Nation is concerned that larvae that have not emerged from the substrates in the narrows when flood flow occurred will be subject to scouring because of the predicted increase in flow velocities through the narrows during flooding and channel operations.</p> <p>Lake Manitoba First Nation is concerned about Project impacts on migratory patterns of fish species that inhabit and spawn in Lake St. Martin.</p> <p>Lake Manitoba First Nation is concerned about fish stranding and winter fish kill.</p> <p>Lake Manitoba First Nation is concerned about sediment transport and erosion, the reduction of lake levels in the north basin of Lake St. Martin and potential whitefish migratory disruption through the Dauphin River, and heightened differential of lake levels between the south and north Lake St. Martin during channel operations because of the Narrows serving as a hydraulic control.</p> <p>Lake Manitoba First Nation is concerned about flow velocity and turbidity changes at the Narrows and impacts to whitefish spawning habitat as well as the potential loss of fish larvae to the LSMOC right after hatching.</p> <p>Lake Manitoba First Nation is concerned about the level of chlorophyll α concentration and its impact to waterbodies and the overall health of fish and fish habitat within the LAA.</p> <p>Lake Manitoba First Nation is concerned about the reliability of information used to assess fish and fish habitat.</p> <p>Lake Manitoba First Nation is concerned about nearshore habitats as the Project will alter lake levels in Lake St. Martin as part of its normal operations and has the potential to disrupt and alter nearshore fish habitat.</p> <p>Lake Manitoba First Nation is concerned that the AEMP does not verify the predicted effects on surface water quality and fish habitat.</p> <p>Lake Manitoba First Nation is concerned that the potential effects to aquatic habitat are oversimplified.</p> <p>Lake Manitoba First Nation is concerned about mobilized mercury in the drainage water.</p> <p>Lake Manitoba First Nation is concerned about the limited array of water quality data related to the west of the LMOC and the south of the LSMOC that may be affected by the Project.</p> <p>Lake Manitoba First Nation is concerned that changes to groundwater and surface water flows caused by the Project will impact water quality.</p>			<p>predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	

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<p>Lake Manitoba First Nation is concerned about the water monitoring and sampling of high land use or high importance areas for Indigenous users in the PDA and LAA as well as the use of traditional knowledge in monitoring programs.</p> <p>Lake Manitoba First Nation is concerned about impacts to commercial fisheries and the effects on Indigenous socioeconomic conditions, cultural, and the current use of lands and resources.</p> <p>Lake Manitoba First Nation is concerned about potential Project effects to cultural experience or knowledge transitions that could result from loss of fishing opportunities in preferred, culturally important areas. Lake Manitoba First Nation is concerned that the Project will increase the negative perception that the fish are unhealthy.</p> <p>Lake Manitoba First Nation is concerned about how changes in local drainage and water flow will affect water quality for supporting a viable, rights-based and commercial fishers as well as supporting other social and cultural uses of Lake St. Martin and Sturgeon Bay in Lake Winnipeg, concerns exacerbated by concerns about existing cumulative effects.</p> <p>Lake Manitoba First Nation is concerned about the impact of algae blooms on the condition of the existing fishery on Lake St. Martin.</p> <p>Lake Manitoba First Nation is concerned that Lake St. Martin is examined as a single basin lake despite the identification of a south and north basin.</p> <p>Lake Manitoba First Nation is concerned about Project effects on fish related to changes to lake levels on Lake St. Martin, changes to flow rates and volumes at the Narrows and through the Dauphin River.</p> <p>Lake Manitoba First Nation is concerned that changes of hydraulic flows through the Narrows and Dauphin Rivers will affect fish.</p> <p><u>Recommendations made by Lake Manitoba First Nation:</u></p> <ul style="list-style-type: none"> Lake Manitoba First Nation recommends that fish hatchery be set up to compensate for damage to fish and spawning areas on Lake St. Martin and Dauphin River. Lake Manitoba First Nation recommends the monitoring of all mitigation efforts should proceed until a one-in-ten year flood event has occurred, and alterations to the monitoring program should only occur following confirmation of the effectiveness of the mitigation measures following that flood event. Lake Manitoba First Nation recommends identifying the number of Indigenous respondents for the Groundwater and Surface Water Management Plans. 				

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<ul style="list-style-type: none"> • Lake Manitoba First Nation requests that Manitoba Infrastructure engage with Lake Manitoba First Nation in a water quality workshop to identify Lake Manitoba First Nation's values and cultural standards related to water quality in Lake St. Martin. • Lake Manitoba First Nation recommends the involvement in Indigenous FSC and commercial fish harvesters in the development and implementation of any monitoring and follow-up program to see how changes are occurring and how meaningful they are. • Lake Manitoba First Nation requests the inclusion of indicators surrounding fish and fishing that are meaningful to Indigenous groups to understand Project impacts. • Lake Manitoba First Nation First Nation recommends a water quality station that includes collections to determine lake redox potential must be established in the south basin of Lake Manitoba. • Lake Manitoba First Nation recommends that the SWEMP and AEMP monitoring programs in the south basin of Lake Manitoba be long term rather than a two-year sampling program. • Lake Manitoba First Nation requests that Manitoba Infrastructure run analysis using years when the Potage Diversion has been operated and include the 2014/2015 flood years. <p><u>Sources:</u> Firelight 2022 Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.11 Manitoba Infrastructure 2019b Golder Associates 2018 IRTC 2022a IRTC 2022b IRTC 2022c IRTC 2022d Olson et. al 2020a Wagner 2020.</p>				

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Plants and Plant Harvesting				
<p><u>Existing Conditions:</u></p> <p>Lake Manitoba First Nation identified species that include Seneca root, berries, <i>weekay (weke)</i>, snakeroot, sweetgrass, cedar, balsam poplar, bearberry, blueberry, Canada gooseberry, choke cherry, highbush cranberry, jackpine, juniper, Labrador tea, raspberry, sage, Saskatoon berry, strawberry, tamarack, tobacco, pine, lady slippers, red willow, moss berry, kinnikinic berries.</p> <p>Lake Manitoba First Nation reported that cranberries, raspberries and moss berries are harvested at Cranberry Creek and tobacco can be found at Moosehorn and Ashern. Weekay is harvested at Hay Point. Sage is harvested on the shore of Lake Manitoba and kinnikinic berries are harvested at the Narrows.</p> <p>Lake Manitoba First Nation reported that sage and sweetgrass is harvested in areas around the proposed Lake Manitoba Channel.</p> <p>Lake Manitoba First Nation also reported harvesting locations at Fairford, Kinwow Bay, Silver Bay, Big Dog Lake and Duck Mountain.</p> <p>Lake Manitoba First Nation reported gathering plants and berries in the RAA, noting that berry availability had decreased following the 2011 flood.</p> <p>Lake Manitoba First Nation reported that Seneca root is picked in the Project Area and berries are picked in the northern part of the channel.</p> <p>Lake Manitoba First Nation indicated that the flooding of Lake St. Martin has resulted in impacts to the harvest of medicinal herbs and plants.</p> <p>Lake Manitoba First Nation reported that traditional medicines are used to treat many ailments.</p> <p>Lake Manitoba First Nation reported that the quantity of valued plants and medicines have declined, including berries and firewood.</p> <p>Lake Manitoba First Nation reported that human disturbance and activity have moreover affected the strength of medicines.</p> <p>Lake Manitoba First Nation reported that berry-picking often occurs as opportunities arise, whether while travelling or while out on the land conducting other activities.</p> <p>Lake Manitoba First Nation reported the abundance of medicine plants has also decreased. Tobacco, cedar, and weekay are not as plentiful as they once were, and harvesters have to travel farther in order to find medicines.</p>	<p><u>Species Identified by Lake Manitoba First Nation:</u> Seneca root, berries, <i>weekay (weke)</i>, snakeroot, sweetgrass, cedar, balsam poplar, bearberry, blueberry, Canada gooseberry, chokecherry, highbush cranberry, jackpine, juniper, Labrador tea, raspberry, sage, Saskatoon berry, strawberry, tamarack, tobacco, pine, lady slippers, red willow, moss berry, kinnikinic berries.</p> <p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, giant hyssop, baneberry, speckled alder, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugle-weed, Canada mayflower, wild mint, morel, yellow evening primrose, self-heal, pin cherry, sand cherry, plum, bracken (fiddlehead), wintergreen, bur oak, wild black currant, red currant, prairie rose, wild rose, cloud berry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, red clover, dwarf blueberry, bog blueberry, cranberry, logan berry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> Lake St. Martin is within the PDA. Portions of Lake Manitoba are within the PDA.</p> <p>The proposed Lake Manitoba Channel is in the PDA. The Narrows are within the PDA. Cranberry Creek, Fairford, Moosehorn, Ashern, Dog Lake and</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>Manitoba Infrastructure acknowledges that the information about use of plants and plant harvesting by Lake Manitoba First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use plants and plant harvesting by Lake Manitoba First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Lake Manitoba First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component. The RVMP includes weed control measures and herbicide application (e.g., glyphosate) will be required in some instances. Integrated approaches using mechanical treatment and active revegetation will be used where possible. Areas of existing weed infestation will likely require broadcast herbicide application. Herbicide application will not occur within 30 m of waterbodies and fish habitat and will be handled under a pesticide permit.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7). As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups</p>

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<p>Lake Manitoba First Nation reported gathering wild tea, seneca root, blueberries and cranberries, near the Road Project clearing.</p> <p>Lake Manitoba First Nation reported that the ROW clearing and the Road Project clearing has permanently removed plants and medicines, like seneca root.</p> <p>Lake Manitoba First Nation reported that the 2011 flood devastated many habitats, preventing fishing, hunting, trapping, gathering, berry picking, and just being out on the land.</p> <p><u>Issues and Concerns:</u></p> <p>Lake Manitoba First Nation expressed concern that traditional berry picking and medicine harvest areas may be affected by local flooding.</p> <p>Lake Manitoba First Nation expressed concern that access road construction has the potential to disturb vegetation.</p> <p>Lake Manitoba First Nation expressed concerns about the potential for changes in water flows to affect and medicinal plants.</p> <p>Lake Manitoba First Nation is concerned about the risk of erosion created by altered water flows and levels degrading plant harvesting sites and flooding medicine habitats as a result of the Project.</p> <p>Lake Manitoba First Nation is concerned about the clearing of trees for the Project ROW and Road Project.</p> <p>Lake Manitoba First Nation is concerned about spraying chemicals along the Road Project and ROW, noting that plants are going to be destroyed and may become extinct.</p> <p>Lake Manitoba First Nation is concerned about impacts to vegetation growth and ability to harvest medicines, loss of berry plants, concerns about the use of glyphosate for weed control, and loss of harvesting areas.</p> <p>Lake Manitoba First Nation is concerned about the potential spread of invasive species caused by the Project.</p> <p>Lake Manitoba First Nation is concerned about impacts to sensitive areas outside the assessment area and impacts to unidentified important landscape features and soils affected by the Project.</p> <p>Lake Manitoba First Nation is concerned that sustained reductions in water levels, the intersecting of local drainages adjacent to the channels, and reduction in watershed drainage areas caused by the construction of the Project will impact the overall quantity of shoreline and riparian habitat.</p> <p><u>Recommendations made by Lake Manitoba First Nation:</u></p>	<p>Silver Bay are in the LAA. Hay Point, Kinwow Bay, Gypsumville and Duck Mountain are outside of the RAA</p>		<p>restoration of vegetation cover in disturbed areas.</p> <ul style="list-style-type: none"> The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Lake Manitoba First Nation to discuss the Environmental Management Plans. A meetings was held with Lake Manitoba First Nation on the following dates: September 21, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Lake Manitoba First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force</p>

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<ul style="list-style-type: none"> Lake Manitoba First Nation recommends compensation for traditional users and for loss of medicines Lake Manitoba First Nation encourages Manitoba Infrastructure to inform Lake Manitoba First Nation communities if a wildfire spreads beyond the PDA which could put land users or communities at risk. <p><u>Sources:</u> Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.11 Golder Associates 2018 Manitoba Infrastructure 2018b IRTC 2022a IRTC 2022b IRTC 2022c IRTC 2022d Olson et al. 2020a Wagner. 2020</p>				<p>requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Lake Manitoba First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p><u>Issues and Concerns:</u></p> <p>Lake Manitoba First Nation expressed concerns regarding Lake St. Martin Access Road Project including, the road's location, whether or not it will be gated, and potential for impacts to road maintenance.</p> <p>Lake Manitoba First Nation reported utilizing a network of trails and water routes along the shorelines of Lake Winnipeg.</p> <p>Lake Manitoba First Nation reported the use of water routes where participants travelled by boats and canoes to set nets and catch multiple species of fish.</p> <p>Lake Manitoba First Nation reported that travel routes include trails to haul water.</p> <p>Lake Manitoba First Nation reported the 2011 flooding event prevented the Dauphin River from freezing entirely, which inhibited them from travelling along the river in the winter and resulted in there being too much water to travel the river in the spring and summer.</p> <p>Lake Manitoba First Nation reported that Cultural Continuity values include snowmobile routes and historical wagon routes used to travel across the territory.</p>	<p><u>Locations:</u> Portions of Lake Winnipeg's shoreline and Fairford River are in the PDA. Watchorn Creek is within the LAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>Manitoba Infrastructure acknowledges that the information about use of travel routes by Lake Manitoba First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of travel routes harvesting by Lake Manitoba First Nation to occur throughout the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated</p>

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<p>Lake Manitoba First Nation is concerned about the Project's potential effects on cultural continuity and loss of trails.</p> <p>Lake Manitoba First Nation is concerned that the Project will adversely impact the heritage value associated with the Fairford Trail and its historical function as a travel route and Watchorn Creek crossing.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure 2019a</p> <p>Olson et al. 2020a</p> <p>IRTC 2022a</p> <p>IRTC 2022b</p> <p>IRTC 2022d</p>		<p>proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p>	<ul style="list-style-type: none"> Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed at specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>(Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Lake Manitoba First Nation to discuss the Environmental Management Plans. A meetings was held with Lake Manitoba First Nation on the following dates: September 21, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Lake Manitoba First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and</p>

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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>		<p>Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Lake Manitoba First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p><u>Existing Conditions:</u></p> <p>Lake Manitoba First Nation reported camping at McBeth Point, Kinwow Bay, and Lake St. Martin.</p> <p>Lake Manitoba First Nation mentioned unmarked graves at the northwest arm of Kinwow Bay and a powwow site on Lake Manitoba.</p> <p>Lake Manitoba First Nation reported that Cultural Continuity values including gathering sites for community events and camping sites.</p>	<p><u>Locations:</u> Portions of Lake Winnipeg and Lake Manitoba are in the PDA. Lake St. Martin is within the PDA. Macbeth Point, Kinwow Bay are outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>Manitoba Infrastructure acknowledges that the information about use of habitation, cultural and spiritual sites and areas by Lake Manitoba First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. 	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive</p>

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<p>Lake Manitoba First Nation reported that frequent floods over many years have damaged their reserve lands so even cultural gatherings, youth training sites, ceremonial sites, historic trails, and other special places are not as good as they once were.</p> <p><u>Issues and Concerns:</u></p> <p>Lake Manitoba First Nation raised concerns regarding the Projects on going flooding in the region from control structures and increases in water levels on Lake Winnipeg that may cause the erosion of lake shoreline that diminishes the value of camping.</p> <p>Lake Manitoba First Nation raised concerns about the effects of Project-related flooding on important sites, such as ceremonial sites and unmarked graves.</p> <p>Lake Manitoba First Nation is concerned about sites that would be permanently disturbed by the construction and operation of the channels, access roads, and associated works. There would be limited recourse should construction crews damage or destroy artifacts without realizing what they were doing, or while under pressure to maintain schedules during construction. Important sites might never be identified, protected or studied and the Indigenous people to whom those artifacts and sites belong might never know.</p> <p>Lake Manitoba First Nation is concerned with the limitation of land valuation to agricultural activities and does not include the value of land to Indigenous groups and its importance in traditional activities.</p> <p>Lake Manitoba First Nation is concerned about the Project-related changes in water levels, including reduction in water levels, has the potential to interact with other elements of cultural heritage, including use values and associated spiritual and cultural values.</p> <p>Lake Manitoba First Nation is concerned about the Project's potential effects on cultural continuity, such as disruption of cultural transmission, reduced opportunities to spend time on the land and, loss of trails, burial sites, and habitation sites.</p> <p>Lake Manitoba First Nation is concerned about the ability to be involved in the monitoring and mitigation of heritage impacts.</p> <p>Lake Manitoba First Nation is concerned about the excavation and removal of heritage resources from the territory which will result in a significant residual effect to Lake Manitoba First Nation's cultural heritage.</p> <p>Lake Manitoba First Nation is concerned about being notified or involved in heritage mitigation measures in event that a channel is breached.</p> <p>Lake Manitoba First Nation is concerned about the residual effects on Indigenous groups' cultural and spiritual connection</p>		<p>potential for use of habitation, cultural and spiritual sites and areas by Lake Manitoba First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Lake Manitoba First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Apart from the two known cemeteries, no burials or unmarked graves have been identified or reported in the RAA. Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously</p>	<ul style="list-style-type: none"> The EPP identifies specific existing and potential sites and specific measures to protect them. The AMP controls access around the Project construction area. Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Lake Manitoba First Nation to discuss the Environmental Management Plans A meetings was held with Lake Manitoba First Nation on the following dates: September 21, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Lake Manitoba First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will</p>

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<p>to sites which have been disturbed or destroyed due to pre-construction archaeological salvage excavations.</p> <p>Lake Manitoba First Nation is concerned about Project effects on cultural heritage and current use related to changes to lake levels on Lake St. Martin, changes to flow rates and volumes at the Narrows and through the Dauphin River.</p> <p>Lake Manitoba First Nation is concerned about the Proponent's decision to excavate a regionally significant cultural heritage site rather than preserve and protect it.</p> <p>Lake Manitoba First Nation is concerned that changes in water levels caused by the Project in the south basin of Lake St. Martin will impact cultural heritage.</p> <p><u>Sources:</u></p> <p>Golder Associates 2018</p> <p>Olson et. al 2020a</p> <p>Wagner 2020</p> <p>Firelight 2022</p> <p>IRTC 2022a</p> <p>IRTC 2022b</p> <p>IRTC 2022d</p>		<p>unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>		<p>manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Lake Manitoba First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>Lake St. Martin First Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u></p> <p>Lake St. Martin First Nation reported hunting or trapping moose, white-tailed deer, muskrat and ducks, rabbit and seagull (eggs), geese (eggs), ducks (eggs), mallard, geese (pinay), prairie chicken, grouse, beaver, lynx, mink, black bear, black fox, red fox, cross fox, cougar, flying squirrel, otter, wolverine, wolf, coyote, elk, wild boar, weasel, fisher and marten.</p> <p>Lake St. Martin First Nation reported that moose and white-tailed deer are important species for subsistence.</p> <p>Lake St. Martin First Nation reported that beaver, muskrat, and rabbit provided food, as well as income when the sold the fur pelts and other species.</p> <p>Lake St. Martin First Nation reported that American badger and leopard frog are culturally significant species.</p> <p>Lake St. Martin First Nation reported Sugar Island, is an important place for bird habitat and harvesting bird eggs. Lake St. Martin noted that the little islands that dot the waters between Sugar Island and the east side of Lake St. Martin are also important habitats for birds.</p> <p>Lake St. Martin First Nation have reported that snakes have been seen in their community and around the lake.</p> <p>Lake St. Martin First Nation have reported finding buffalo bones in Lake St. Martin, which signifies a tradition of hunting buffalo.</p> <p>Lake St. Martin First Nation reported that high water on Lake St. Martin flooded out muskrat trapping areas and trappers have lost income.</p> <p>Lake St. Martin First Nation reported that they hunt and trap in Buffalo Lake Bog.</p> <p>Lake St. Martin First Nation reported that they hunt moose in the area of the channels.</p> <p>Lake St. Martin First Nation reported that groundwater seeps near the southern shores of the south basin of Lake St. Martin maintain critical wildlife habitat.</p> <p><u>Issues and Concerns:</u></p> <p>Lake St. Martin First Nation reported that the channel Project will affect hunting and trapping areas used by Lake St. Martin First Nation members</p>	<p><u>Species Identified by Lake St. Martin First Nation:</u> moose, white-tailed deer, muskrat, ducks (eggs), rabbit, seagull (eggs), badger, leopard frog, geese (eggs), mallard, geese (pinay), prairie chicken, grouse, beaver, lynx, mink, buffalo, snake, black bear, black fox, red fox, cross fox, cougar, flying squirrel, otter, wolverine, wolf, coyote, elk, wild boar, weasel, fisher, marten, eagles, vultures, magpies, woodpeckers, ma-ji-pii-nayshee, sandpiper, killdeer, che-che-skiway, cha-ko-wa, red wing, sed-gay, owl, cormorant, sparrow, hawk, yellow birds, finch, swans, meadow lark, woodpecker, whippoorwill, meadowlark and loon.</p> <p><u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> mule deer, , short-tailed weasel, long-tailed weasel, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, , partridge.</p> <p><u>Locations:</u> Lake St. Martin is in the PDA. Buffalo Creek is within the PDA. Fairford River is in the PDA. Bear Creek and Buffalo Lake and Willow Point are within the LAA. Bear Creek is in the LAA. Sugar Island and the east side of Lake St. Martin are in the LAA. Birch Creek is within the LAA. Peonan Point is outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about hunting and trapping by Lake St. Martin First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Lake St. Martin First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Lake St. Martin First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups</p>

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<p>Lake St. Martin First Nation reported that the area around Bear Creek is an important area for traditional uses and is concerned that the proposed permanent channel may affect the area.</p> <p>Lake St. Martin First Nation is concerned that the Project will have serious impacts on hunting and trapping.</p> <p>Lake St. Martin First Nation is concerned that the change in water level in wetlands particularly can affect wildlife and vegetation and even can affect the migration paths of birds.</p> <p>Lake St. Martin First Nation is concerned that movement of wildlife is an important issue. Large mammals may not be able to cross the channel and they may be at risk.</p> <p>Lake St. Martin First Nation is concerned that wildlife productivity and breeding habits and grounds may be altered, potentially affecting recreational and subsistence activities for locals of LAA and even RAA.</p> <p>Lake St. Martin First Nation is concerned that the balance of water between lakes, rivers and the channel outlets will directly affect the habitat for numerous species inhabiting "lake margin" areas (e.g. muskrat and water birds).</p> <p>Lake St. Martin First Nation is concerned that the loss of native plant species in the area results in wildlife such as deer being forced to range further away. Waterfowl that are traditionally hunted will be displaced by human presence, construction activity and loss of food sources. Muskrat populations that were previously trapped by local citizens will search for habitat elsewhere or ultimately face the prospect of dying off. This ultimately forces harvesters to track further from home to find sustenance.</p> <p>Lake St. Martin First Nation reported that the area around Bear Creek is an important area for traditional uses and are concerned that the proposed permanent channel may affect the area.</p> <p>Lake St. Martin First Nation identified birds they have noticed decreasing in number over time, some of these are eagles, vultures, magpies, woodpeckers, ma-ji-pii-nayshee, sandpiper, killdeer, che-che-skiway, cha-ko-wa, red wing, sed-gay, owl, cormorant, sparrow, hawk, yellow birds, finch, swans, meadow lark, woodpecker, whippoorwill, meadowlark and loon.</p> <p>Lake St. Martin First Nation is concerned about pollution from flooding affecting bird health.</p> <p>Lake St. Martin First Nation is concerned that diminishing groundwater pressure and volume will impact the Birch Creek and Lake St. Martin ecosystem. Lake St. Martin First Nation is concerned that impacts to Buffalo Lake, Buffalo Creek, and adjacent wetlands will impact wildlife habitat. Lake St. Martin First Nation is concerned that modification of the terrestrial and wetland habitat adjacent to the LSMOC impacts Lake St. Martin</p>		<p>wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>ROW and not extend beyond the PDA (Chapter 8, Section 8.2).</p> <ul style="list-style-type: none"> Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Lake St. Martin First Nation to discuss the Environmental Management Plans. As of mid-March, 2022, Lake St. Martin First Nation has not confirmed a meeting date. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Lake St. Martin First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>First Nation traditional land usage, hunting and harvesting, and cultural rights.</p> <p>Lake St. Martin First Nation is concerned that the channel provides no wildlife passage in the east or west directions in the summer as both channels will be full of water. During lake fall and early winter, Lake St. Martin First Nation is concerned that weak channel ice may cause mortality in wildlife, particularly ungulates, trying to cross the channel.</p> <p>Lake St. Martin First Nation is concerned that there will be mortality to animals trying to traverse the channels, particularly during operation, due to drowning.</p> <p>Lake St. Martin First Nation is concerned that revegetation of the channel ROWs with non-native vegetation on an unnatural landscape will not sustain existing wildlife species.</p> <p>Lake St. Martin First Nation is concerned about the impact to wildlife migration, wildlife habitat, impacts to species at risk (SAR), migratory and species of cultural importance, such as moose, as it relates to Lake St. Martin First Nation treaty and traditional rights to harvest for sustenance, medicinal, and spiritual purposes.</p> <p>Lake St. Martin First Nation is concerned that compensation does not fully mitigate all Project effects and do not re-establish or replace the same balance of wildlife species.</p> <p>Lake St. Martin First Nation is concerned that the Project will impact migratory bird habitat as a result of lowering flows and levels on Lake Manitoba, Lake St. Martin, Fairford River, and Dauphin River migratory fowl habitat shrinking and being degraded. This may result in declines in migratory birds in the region which Lake St. Martin First Nation views as an impact on their traditional and treaty rights.</p> <p>Lake St. Martin First Nation is concerned about the degradation of migratory bird habitat caused by the Lake Manitoba channels reducing natural variability of Lake Manitoba and Lake St. Martin marshes and meadows, impacting Lake St. Martin First Nation treaty and traditional rights.</p> <p>Lake St. Martin First Nation is concerned with the increase in hunting pressure that the Project Access Roads will promote during construction and post Project.</p> <p>Lake St. Martin First Nation is concerned that physical models cannot fully predict environmental impacts to the ecosystem and bio-physical systems such as wildlife population impacts. Lake St. Martin First Nation considers these impacts as impairing Lake St. Martin First Nation's ability to utilize reserve, traditional lands and water, and the resources within them.</p> <p>Lake St. Martin First Nation is concerned that residual Project effects will have a direct impact on treaty and traditional rights for sustenance, cultural, aesthetic, and spiritual use of the</p>				<p>requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Lake St. Martin First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>wildlife within the Lake St. Martin First Nation reserve and traditional lands.</p> <p>Lake St. Martin First Nation is concerned with the higher potential of human caused wildlife that the Project Access Roads will promote during construction and post Project.</p> <p><u>Recommendations made by Lake St. Martin First Nation:</u></p> <ul style="list-style-type: none"> • Lake St. Martin recommends that compensation be provided to all users and trappers. • Lake Manitoba First Nation recommends resource mapping at Willow Point. • Lake St. Martin First Nation recommends that vegetated bridges can be constructed for movement of large mammals. • Lake St. Martin First Nation recommends that during/after Project construction it should be discussed with Indigenous groups when and where it would be possible for harvesting. • Lake St. Martin First Nation recommends that a compensation program for SAR is developed. • Lake St. Martin First Nation recommends that leopard frog and badger are mitigated if encountered during construction. • Lake St. Martin First Nation recommends ongoing monitoring and mitigation of culturally significant species from Project effects. • Lake St. Martin First Nation recommends that Lake St. Martin First Nation has a definitive role on the Environmental Advisory Committee as one of the most impacted Nations and requires committed Lake St. Martin First Nation technical support funding to evaluate project specific project impacts, monitoring data and studies, and targeted mitigation studies during construction, operation, and maintenance of this Project. <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.12</p> <p>Manitoba Infrastructure 2019b</p> <p>Thompson et al. 2014</p> <p>LSMFN n.d.</p> <p>LSMFN 2021</p> <p>LSMFN 2020a</p> <p>LSMFN 2020b</p>				

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Aquatic Environment and Fishing				
<p><u>Existing Concerns:</u></p> <p>Lake St. Martin First Nation reported that the Lake St. Martin Community is called “keygo ka-amo-wad” which means “the people that eat fish”.</p> <p>Lake St. Martin First Nation reported fishing for northern pike (jackfish), walleye (pickerel), red sucker, mariah, mallet, sturgeon, carp, perch, silver bass, sunfish, catfish, tullibee and lake whitefish as well as a variety of other species.</p> <p>Lake St. Martin Nation noted that commonly eaten fish are pickerel and whitefish. Other fish consumed included jackfish, sturgeon, sauger, red sucker, and sucker.</p> <p>Lake St. Martin Nation reported that community members also gathered eggs of sturgeon and white fish.</p> <p>Lake St. Martin First Nation reported subsistence and recreational fishing occur at Lake St. Martin, Dauphin River, Mantagao River, and Sturgeon Bay year-round.</p> <p>Lake St. Martin First Nation reported that the Mantagao River is a key spawning site for fish, particularly pickerel.</p> <p>Lake St. Martin First Nation noted that fish come back to the south basin of Lake St. Martin through the south side of the narrows.</p> <p>Lake St. Martin First Nation noted there are sand bars throughout Lake St. Martin, which are favourite places where the fishers fish because of the abundance of fish on and around the sand bars.</p> <p>Lake St. Martin First Nation reported fishing camps on the other side of Lake St. Martin First Nation on the east side of Lake St. Martin and at Big Rock, Lake St. Martin First Nation also reported fishing camps and at Dauphin River that they used while they fished on Lake Winnipeg.</p> <p>Lake St. Martin First Nation reported that fish oil is extracted from fish guts and boiled, is used for various remedies.</p> <p>Lake St. Martin First Nation reported that pesticides are getting into Lake St. Martin affecting water quality and the fish they eat.</p> <p>Lake St. Martin First Nation reported that debris from the EOC is affecting commercial fishing, safety of fishers and damaging boats and motors.</p> <p>Lake St. Martin First Nation reported that Johnson Beach is used for subsistence and commercial fishing.</p> <p>Lake St. Martin First Nation that Wilson Point is an important commercial fishing area.</p>	<p><u>Species Identified by Lake St. Martin First Nation:</u> northern pike (jackfish), walleye (pickerel), lake whitefish, lake sturgeon, red sucker, mariah, mallet, sauger sturgeon, carp, perch, Silver bass, Sunfish, catfish, tullibee.</p> <p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> white sucker, common carp, channel catfish, burbot, trout, perch,.</p> <p><u>Locations:</u> Lake St. Martin is within the PDA. Portions of Lake Winnipeg are within the PDA. The Narrows are within the PDA. Sturgeon Bay is within the PDA. Buffalo Creek is within the PDA. Portions of Lake Manitoba are within the PDA. Fairford River is in the PDA. Dauphin River, Big Rock Mercer Creek, and Willow Point are within the LAA. Portions of Lake Pineimuta are in the LAA. Bear Creek is in the LAA. Birch Creek is within the LAA. Buffalo Lake is within the LAA. Reed Lake is in the LAA. Mantagao River is within the RAA, Johnson Beach, Playgreen Lake, Goodman Lake, and Wilson Point is outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by Lake St. Martin First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Lake St. Martin First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Lake St. Martin First Nation.</p> <p>During a flood event, water flows across the land and can pick up sediments that contain chemicals such as fertilizers, pesticides and other contaminants. Under current conditions, this material flows through the Fairford River and the Dauphin River during floods. The Project will reduce the amount of overland flooding and is therefore expected to reduce the amount of contamination entering Lake Winnipeg.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be</p>	<p>Effects regarding sediments, debris and contamination are considered in the SWMP, SMP, PERs and Debris Management Plan. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Any storage and use of chemicals is strictly regulated and application of chemicals requires training and a permit. Sediments will be monitored, and visual inspections will be carried out as part of the SWMP and SMP and contingency mitigation measures such as silt fencing and materials to minimize bank erosion will be used, where necessary. The banks of the channel will be revegetated to reduce erosion. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. If required, at the start of operation, the water control structure gates can be gradually opened to control sediment levels, based on results of sediment monitoring. There will likely be increases in sediment concentrations at the end of the channel, but they will be managed to address water quality concerns through monitoring and flow adjustments. <p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 – Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized</p>

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<p>The Lake St. Martin First Nation Anishinaabek identified fish spawning areas in the Lake St. Martin and one spawning site is near the proposed Lake St. Martin outlet channel.</p> <p>Lake St. Martin First Nation reported that many people depended on fishing for their livelihood, noting that before the 2011 flood, there were 120 license holders in the community for fishing.</p> <p>Lake St. Martin First Nation reported that the reefs on Lake St. Martin have an important role in controlling the flow of water in the lake. Reefs are also important spawning areas for the fish. Lake St. Martin First Nation stated that there are many reefs between Sugar Island and the eastern side of Lake St. Martin going through to the Narrows.</p> <p>Lake St. Martin First Nation reported that water is critical for all types of land uses. The Anishinabek of Lake St. Martin First Nation apply a wholistic and integrated approach to land use planning that considers land and water simultaneously to ensure that water is protected.</p> <p>Lake St. Martin First Nation reported that community members would collect water directly from the lake for drinking and cooking and this was often their only source of drinking and potable water.</p> <p>Lake St. Martin First Nation reported that ice was collected in winter for use as refrigeration systems in the spring and summer. Community members would harvest large blocks of ice and store them under large bales of hay.</p> <p>Lake St. Martin First Nation has reported that Birch Creek is an important wetland complex and fish spawning habitat.</p> <p>Lake St. Martin First Nation reported that lakes such as Birch Lake, Goodman Lake, and Reed Lake, as well as locations along Birch Creek benefit from artesian groundwater discharge to supplement base flows.</p> <p>Lake St. Martin First Nation reported that the Carbonate aquifer discharges in the Lake St. Martin Lake bottom, creating critical habitat for white fish spawning.</p> <p>Lake St. Martin First Nation noted that there is a belief that springs exist in the lakes of Birch Creek.</p> <p>Lake St. Martin First Nation noted that the carbonate aquifer is an asset to the region and important for future development and economic prosperity for the region.</p> <p>Lake St. Martin First Nation reported that Lake St. Martin First Nation fishing rights have been severely impacted by Fairford Control Structure operations. Lake St. Martin First Nation has reported a significant decline in fishing due to the increased effort of harvesting.</p>		<p>unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43).</p> <ul style="list-style-type: none"> • Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. • Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. 	<p>in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Lake St. Martin First Nation to discuss the Environmental Management Plans. As of mid-March, 2022, Lake St. Martin First Nation has not confirmed a meeting date. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Lake St. Martin First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD1 to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD1 representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is</p>

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<p>Lake St. Martin First Nation reported that the natural water level variability of Lake Manitoba and Lake St. Martin has been significantly impacted since the increase in capacity of the Fairford River and the advent of the Portage Diversion.</p> <p>Lake St. Martin First Nation reported that a flood easement has never been established since the commissioning of the Fairford Control Structure and even with operations of the proposed channels, artificial flooding and artificial drought still prevails from the natural (Pre- 1960) Lake St. Martin inflow/outflow regime and lake levels.</p> <p>Lake St. Martin First Nation reported that the 2011 flood had increased magnitude of peak flow and volume and created an enhanced magnitude manmade flood which Lake St. Martin First Nation is still recovering from.</p> <p><u>Issues and Concerns:</u></p> <p>Lake St. Martin First Nation expressed concern regarding potential effects on commercial fisheries.</p> <p>Lake St. Martin First Nation are concerned about zebra mussels clogging water intakes and how they will affect fish.</p> <p>Lake St. Martin First Nation is concerned that the proposed channels with spoil whitefish fisheries.</p> <p>Lake St. Martin First Nation is concerned about the contamination coming into Lake Winnipeg from sewage lagoons.</p> <p>Lake St. Martin First Nation is concerned that pesticides are getting into Lake St. Martin affecting water quality and the fish.</p> <p>Lake St. Martin First Nation is concerned about flooding at Lake St. Martin.</p> <p>Lake St. Martin First Nation is concerned that the Project will have serious impacts on surface water, groundwater resources, and drinking water sources.</p> <p>Lake St. Martin First Nation is concerned that any disruption of the balance of inflow and outflow due to LMOC and LSMOC channel adjustments or Fairford flow adjustments to deal with ice impacts may cause shifting ice on Lake St. Martin or ice jamming on the Fairford River.</p> <p>Lake St. Martin First Nation is concerned that lake sturgeon are potentially driven from the bay to non-native areas.</p> <p>Lake St. Martin First Nation is concerned that this reach (LMOC) will be conducive to erosion and downstream sedimentation.</p> <p>Lake St. Martin First Nation is concerned that a silt deposition delta will establish over time, filling the southernmost portion of the Lake St Martin basin and less fish habitat will be available.</p>			<ul style="list-style-type: none"> The majority of Project channel excavation and construction will be conducted “in the dry” and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p>	<p>working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Lake St. Martin First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>Lake St. Martin First Nation is concerned that ice jamming at control structures, drop structures and bridges could be a significant impact to reducing channel capacity, increasing damage to channel infrastructure, potential over topping of channel banks causing overland runoff, potential impact to roads and increased erosion and sedimentation.</p> <p>Lake St. Martin First Nation is concerned that shifting Lake St. Martin and Lake Pineimuta ice cover levels can severely affect commercial fishing operations due to nets freezing in place or unstable ice conditions.</p> <p>Lake St. Martin First Nation is concerned that sustained aquifer depressurization measures during construction will affect private wells due to lowering of the groundwater table.</p> <p>Lake St. Martin First Nation is concerned that although the risk of invasive rainbow smelt going upstream is low, the risk is there and impact is high in magnitude as with zebra mussels and spiny waterflea.</p> <p>Lake St. Martin First Nation is concerned that new/increased fish population could affect resource and production of another species through competition, prey/predator relationships, etc. A new population in another area could increase the predator numbers in one location.</p> <p>Lake St. Martin First Nation is concerned that reductions in water levels during spring, as a result of the outflow channels will seriously affect spawning duration and quality. This will have a negative effect on the population of pickerel in Lake St Martin, similar in nature to Playgreen Lake impacts.</p> <p>Lake St. Martin is concerned that fish passage through the lake will be highly affected by changes in flow of water and its velocity as it passes. This will drastically affect the mobility of certain key fish species (e.g., pickerel and northern pike) that are essential to commercial and subsistence fish harvesting.</p> <p>Lake St. Martin First Nation is concerned that the fishery will be affected during outlet channel construction due to leaching and decomposition of organic materials caused by floodwaters in the channel areas.</p> <p>Lake St. Martin First Nation is concerned that sedimentation will result in decreasing oxygen levels, increased turbidity and sediment accumulation.</p> <p>Lake St. Martin First Nation is concerned that trees collapsing into the lake will cause navigational hazards and affect the ability to fish.</p> <p>Lake St. Martin First Nation is concerned that the outflow channels are likely to create ice jamming and thick ice cover levels in the winter that can severely impact commercial operations due to nets freezing in place and becoming</p>			<ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p>Measures to avoid or reduce effects to commercial fishing are identified in the CEMP and include:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will engage with commercial fish harvesters, anglers, local resource users, and MSD Regional Officials to address potential conflict, disturbance, or access restrictions to fishing/harvesting areas in the PDA and LAA, and availability of fish resources. <p>The GWMP will establish thresholds and triggers for monitoring impacts to the groundwater, including water quality impacts.</p> <p>As stated in the Project EIS and in the responses to Technical Information Request IAAC-14, and Public Information Request IAAC-69, Project effects on surface water quality are not expected to be measurable beyond Sturgeon Bay in Lake Winnipeg (i.e., the extent of the LAA).The response for IR-65 provides further details.</p> <p>As stated in the Project EIS (Volume 2, Section 6.4.7), any potential changes in water levels are not expected to be discernible in the context of existing water level variations.</p> <p>Spatial boundaries of the Project are addressed in IAAC-69.</p> <p>Effects to surface water quality are addressed in IAAC-14.</p> <p>Effects to sediment transport are addressed in IAAC-30.</p>	

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<p>irretrievable or unstable ice conditions that prevent access by fishers themselves.</p> <p>Lake St. Martin First Nation reported that the area around Bear Creek is an important area for traditional uses and are concerned that the proposed permanent channel may affect the area.</p> <p>Lake St. Martin First Nation described the community prior to 1950 as being self-reliant, subsistent, and healthy. Flood and government policies have become the key drivers to challenge the well-being of Lake St. Martin First Nation members.</p> <p>Lake St. Martin First Nation has reported that community members have lost their connection after the 2011 flood that displaced them from their land and territory for a decade. As the community is returning back to their land, the community members worry if their <i>mino pimatisiwiin</i> (former wellbeing) would be further compromised through province's development plans to regulate the water flow in Lake St. Martin, such as the proposed Lake Manitoba Lake St. Martin Outlet Channels Project.</p> <p>Lake St. Martin First Nation has reported that the water current has reversed and commented that the natural water flow in not as it once was, so fish go back to Lake Winnipeg to spawn; that is why fish spawning has diminished in Lake St. Martin. Lake St. Martin First Nation stated that fish decline when the water level in Lake St. Martin is low. Lake St. Martin First Nation is concerned about the potential destruction of the fish spawning sites in Lake St. Martin Narrows by the proposed outlet channels.</p> <p>Lake St. Martin First Nation is concerned that the proposed outlet channels will destroy the livelihood of fishermen and negatively impact the natural habitats and environment for fish spawning and other animals.</p> <p>Lake St. Martin First Nation is concerned that the outlet channel will destroy the water, natural reefs and springs and as a consequence, further degrade the quality of their life of St. Martin First Nation members.</p> <p>Lake St. Martin First Nation has reported that water quality impacts to Birch Creek wetlands, LSMOC downslope lands, the groundwater piezometric levels and water quality, and the Lake St. Martin fishery are viewed as a direct impact on Lake St. Martin First Nation's treaty and traditional use rights.</p> <p>Lake St. Martin First Nation has reported that water quality and water level impacts Lake St. Martin are viewed as a direct impact on Lake St. Martin First Nation's treaty and traditional use rights.</p> <p>Lake St. Martin First Nation has reported that impacts of the LMOC and LSMOC wetland losses are viewed as an impact on traditional and treaty rights.</p>			<p>Effects to the south basin of Lake Winnipeg are discussed in IAAC-69.</p> <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	

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<p>Lake St. Martin First Nation is concerned that removing a portion of the watershed will impact the flow variability of Buffalo Creek.</p> <p>Lake St. Martin First Nation is concerned about how the contribution of the drain will impact Lake St. Martin Birch Creek Bay.</p> <p>Lake St. Martin First Nation is concerned that adequate drilling has not been completed adjacent to the lakes and wetland complexes of Birch Creek to identify groundwater inflow points.</p> <p>Lake St. Martin First Nation is concerned that a surface water model has not been completed.</p> <p>Lake St. Martin First Nation is concerned about the impact of sediment plumes on the Lake St. Martin First Nation drinking water treatment plant that is located on the south basin of Lake St. Martin.</p> <p>Lake St. Martin First Nation is concerned about additional costs for water treatment to address degradation of Lake St. Martin First Nation's drinking water source and is concerned about the capacity of the water treatment plant to treat degraded water quality.</p> <p>Lake St. Martin First Nation is concerned about impacts to the Lake St. Martin fishery during spawning fishery habitat and drinking water sources.</p> <p>Lake St. Martin First Nation is concerned about the significantly higher concentrations of nitrogen and phosphorus in Lake Manitoba than Lake St. Martin and the possibility of more frequent and severe algae blooms.</p> <p>Lake St. Martin is concerned that the introduction of LMOC increased flow will impact the Lake St. Martin Fishery.</p> <p>Lake St. Martin First Nation is concerned about the potential plans to relocate of Birch Creek to accommodate the LMOC.</p> <p>Lake St. Martin First Nation is concerned about the increased flow being diverted through Lake St. Martin resulting in greater sediment transport loading to Lake St. Martin and is concerned about what the distribution and buildup of sediment in the south basin of Lake St. Martin will become over a 50-year period.</p> <p>Lake St. Martin First Nation is concerned about impacts to the undeveloped beach of Sturgeon Bay caused by Groins or Jetties which will disrupt offshore littoral drifting of sand, causing accretion upwind of the jetty and erosion downstream of the jetty.</p> <p>Lake St. Martin First Nation is concerned that LMOC jetties will experience shoreline morphology changes.</p>				

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<p>Lake St. Martin First Nation is concerned about to surface water quality. Sediment transport, nutrient loading, and drainage of wetlands.</p> <p>Lake St. Martin First Nation is concerned about carbonate aquifers and the use of potable drinking water.</p> <p>Lake St. Martin First Nation is concerned that high silt loads could cover the natural substrate of Birch Creek and reported that Birch Creek should not be a discharge zone for wastewater during construction.</p> <p>Lake St, Martin First Nation is concerned that anoxic groundwater from depressurization wells during construction and long-term operations being wasted in Birch Creek will be harmful to the Birch Creek fishery causing fish kills particularly in the winter.</p> <p>Lake St. Martin First Nation is concerned about sediment levels and sediment quality in the Project area during construction, operation, and maintenance activities and noted that it is a direct impact on Lake St. Martin First Nation in regard to their treaty and traditional use rights in terms of fishery harvesting, drinking water quality, impacts on reserve shoreline habitat, and cultural and recreational use of Lake St. Martin.</p> <p>Lake St. Martin First Nation is concerned that diminishing groundwater pressure and volume will impact the Birch Creek and Lake St. Martin ecosystem.</p> <p>Lake St, Martin First Nation is concerned that impacts to Buffalo Lake, Buffalo Creek, and adjacent wetlands will impact the fishery.</p> <p>Lake St. Martin First Nation is concerned that the aquifer modelling is inadequate.</p> <p>Lake St. Martin First Nation is concerned as to the sustainability of the Carbonate aquifer for future generations.</p> <p>Lake St. Martin First Nation noted that it is difficult to quantify impacts in surface water flow regime for Buffalo Lake and Creek.</p> <p>Lake St. Martin First Nation considers the alteration of the carbonate aquifer and groundwater quality in the vicinity of LMOG and LSMOC an impact on Lake St. Martin First Nation traditional use and treaty rights.</p> <p>Lake St. Martin First Nation is concerned that dispersion of sediment in the lake bottoms of Lake St. Martin and Lake Winnipeg will impact new areas of the lakes and fish spawning grounds.</p> <p>Lake St. Martin First Nation is concerned about the impacts of sedimentation on Birch Bay fish spawning beds.</p> <p>Lake St. Martin First Nation is concerned that the winter changes in flow of Fairford Control Structure and this Project</p>				

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<p>will cause Lake St. Martin level fluctuations and freezing in nets.</p> <p>Lake St. Martin First Nation is concerned about the effectiveness of the Mercer Creek spawning bed as an offset because Mercer Creek is a very small watershed.</p> <p>Lake St. Martin First Nation is concerned that the Project will further impact treaty rights to harvest fish and that fish will not be able to populate the portion of Birch Creek cut off by the LMO and the portion of Buffalo Creek cutoff by the LSMOC.</p> <p>Lake St. Martin First Nation is concerned about the in definitive assessment of impacts to habitat, spawning, movement, and forage, including proposed flow allocation, hydrographs effects to fish and habitat, flow changes to fish and habitat, and mercury in fish flesh. Lake St. Martin First Nation reported that a definitive decision as to the degree of impact to fisheries and treaty fishing rights and whether adaptive management will be effective in addressing impacts cannot be determined.</p> <p>Lake St. Martin First Nation disagrees that there is no significant impact to the Lake St, Martin fishery as the distribution and population of fish will change due to the improved outlet capacity promoting movement of fish out of Lake St. Martin. Lake St. Martin First Nation is concerned that the Project will create more effort in harvesting due to changes in fish movements during channel operations.</p> <p>Lake St. Martin First Nation is concerned that predatory fish will prey on stranded fish in LSMOC drop structure pools.</p> <p>Lake St. Martin First Nation considers that Project changes in Lake St. Martin water level regime and lake inflow and outflow as an impact to Lake St. Martin First Nation treaty rights. Lake St. Martin First Nation noted that any unpredictable affect to fish populations in Lake St. Martin, Dauphin River, and Lake Winnipeg is also considered an impact to treaty rights.</p> <p>Lake St. Martin First Nation is concerned with the conclusion of no affects at the Narrows, as a significant change in flow regime occurs 20% of the time resulting in impacts to habitat, fish passage, erosion, and silt deposition.</p> <p>Lake St. Martin First Nation is concerned that the RAA does not include the full Lake Winnipeg North Basin, which has fish stocks supported by significant spawning grounds for whitefish and pickerel in Lake St. Martin and will be impacted by the Project.</p> <p>Lake St. Martin First Nation is concerned that physical models cannot fully predict environmental impacts to the ecosystem and bio-physical systems such as fish population impacts. Lake St. Martin First Nation considers these impacts as impairing Lake St. Martin First Nation's ability to utilize reserve, traditional lands and water, and the resources within them.</p>				

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<p>Lake St. Martin First Nation is concerned that an extreme high intensity rainstorm event during construction will overwhelm erosion protection measures, sediment traps, drainage systems, etc. and result in significant impacts to the aquatic habitat and fish populations.</p> <p>Lake St. Martin First Nation is concerned that drinking water sources will be impacted by sediment transport in the south basin of Lake St. Martin and how it could impact health of Lake St. Martin First Nation community members and recreational water activities. Lake St. Martin First Nation considers any changes in sediment transport and deposition mechanisms affecting fish habitat, fish forage, and fish spawning as an impact to Lake St. Martin First Nation treaty and traditional rights for fishery resource harvesting of Lake Manitoba, Lake St. Martin, and Lake Winnipeg.</p> <p>Lake St. Martin First Nation is concerned about the estimated 75mm increase in Lake Winnipeg's water level from channel impacts which translates to significant horizontal flooding along the shores and islands of Lake Winnipeg. Lake St. Martin First Nation is concerned about what the incremental area of flooding will be on Lake Winnipeg and its islands.</p> <p><u>Recommendations made by Lake St. Martin First Nation</u></p> <ul style="list-style-type: none"> • Lake St. Martin First Nation recommends a debris cleanup program to clean up the material that is damaging commercial fishing equipment. • Lake St. Martin First Nation recommends that a Lake Manitoba First Nation community member to be on site during Project construction. • Lake St. Martin First Nation recommends monitoring of fish to ensure it is safe to eat. • Lake St. Martin First Nation recommends resource mapping at Willow Point. • Lake St. Martin First Nation recommends that bridges be designed for ice jam conditions. • Lake St. Martin First Nation recommends that a monitoring or research plan be set up for AIS. Employees and locals may need to contribute to current preventative measures that are already in place as much as possible, following guidelines and providing feedback and being educated on the subject • Lake St. Martin First Nation recommends use of local Indigenous people to run Dauphin River hatchery to promote fish replacement or import fish from other hatchery monitoring post Project. 				

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<ul style="list-style-type: none"> • Lake St. Martin First Nation recommends monitoring of groundwater near quarries until quarries are decommissioned to identify water quality impacts to groundwater. • Lake St. Martin First Nation recommends diversion conduits should outlet from the LSMOC and be operated to replicate the flow to Buffalo Creek at various points. • Lake St. Martin First Nation recommends watershed modelling of the full Buffalo Lake and Creek watersheds. • Lake St. Martin First Nation recommends that groundwater monitoring should be conducted for longer than 2 years after construction and needs to take place until 2 years after a major flood event for which the channels will be operated for a significant period. • Lake St. Martin First Nation recommends that Lake St. Martin First Nation has a definitive role on the Environmental Advisory Committee as one of the most impacted Nations and requires committed Lake St. Martin First Nation technical support funding to evaluate project specific project impacts, monitoring data and studies, and targeted mitigation studies during construction, operation, and maintenance of this Project. • Lake St. Martin First Nation recommends that drilling exploration is continued to further define groundwater contribution to Birch Creek. • Lake St. Martin First Nation recommends that the mitigation of loss of surface flow should be by means of diversion conduits from LSMOC to Buffalo Lake. • Lake St. Martin First Nation recommends a post-Project sediment deposition monitoring and erosion monitoring in Birch Bay and Sturgeon Bay as well as monitoring of Birch Bay fish spawning beds. • Lake St. Martin First Nation recommends a long-term monitoring program to ensure the high recreational use beach does not degrade. • Lake St. Martin First Nation recommends additional monitoring to understand impacts in changes of flows to Dauphin and Fairford River on fish movement in these rivers. • Lake St. Martin First Nation recommends incorporation of reduced risk timing in the operating guidelines for LMOC and LSMOC to reduce impact on fish and fish habitat. • Lake St. Martin First Nation recommends that the Project commits to a replacement fish ladder as a component of this Project, as a more effective fish ladder would be an 				

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<p>effective fish offset in restoring the only fish passage between Lake St. Martin and Lake Manitoba.</p> <ul style="list-style-type: none"> • Lake St. Martin First Nation recommends the following fish impact offsets: On- reserve fencing for cattle isolation; ; cattle watering systems to implement pasture rotation; enhanced spawning habitat at Bear Creek Sheltered Fishers Harbour and boat launch on Lake St. Martin First Nation reserve. • Lake St. Martin First Nation recommends an Indigenous operation white fish and pickerel hatchery to offset Project fisheries impacts. • Lake St. Martin First Nation believes it incumbent for the Project to quantify impacts to fish, fish habitat, spawning, movement, and forage and mitigate First Nation treaty rights fully. • Lake St. Martin First Nation recommends expanding the Project RAA to include the full Lake Winnipeg North Basin. • Lake St. Martin First Nation recommends that a pump house could augment the flow during channel operations, which would benefit Birch Creek riparian habitat and fish spawning periods. • Lake St. Martin First Nation recommends comprehensive scrutiny of surface water management and proactive response to control sedimentation and water quality from extreme precipitation or snow melt events as well as fish movement and fish habitat impacts and proactive response to address these impacts that could impact Lake St. Martin treaty and traditional rights of subsistence harvesting of fishery resource in Lake Manitoba, Lake St. Martin, and Lake Winnipeg. • Lake St. Martin First Nation recommends that Lake St. Martin First Nation is contracted to perform all Project fish harvesting/salvage operations during construction. Lake St. Martin First Nation recommends a comprehensive scrutiny of potential AIS transport vectors and proactive response to control AS introductions that could impact Lake St. Martin First Nation treaty and traditional rights for recreational and cultural use of Lake Manitoba, Lake St. Martin, and Birch Creek. • Lake St. Martin First Nation recommends a comprehensive scrutiny of Project impacts to sturgeon aquatic habitat, life cycle, and migration as they are a culturally significant species and population decreased will impact Lake St. Martin First Nation's treaty and traditional rights of subsistence harvesting of sturgeon in Lake Winnipeg. 				

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<ul style="list-style-type: none"> Lake St. Martin First Nation recommends a briefing by the Project as to whether their drinking water sources will be affected by construction and post-Project water quality impacts. Lake St. Martin First Nation recommends clarification on impacts to fish species and habitat from sedimentation, water quality changes, water flow changes, and flow duration changes as well as spawning and foraging disruptions prior to the Project proceeding. Lake St. Martin First Nation recommends clarification on the zone of influence to fish on the LMOC and LSMOC inlets to enhanced fish migration downstream, particularly in terms of larval fish emerging from Mercer and Watchorn creeks, which will be susceptible to entrainment and downstream movement in the channels during operation. <p>Sources :</p> <p>Manitoba Infrastructure 2019b</p> <p>Manitoba Infrastructure Indigenous Engagement Program</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.12</p> <p>LSMFN n.d.</p> <p>LSMFN 2020a</p> <p>LSMFN 2020b</p>				
Plants and Plant Harvesting				
<p><u>Existing Conditions</u></p> <p>Lake St. Martin First Nation have extensive traditional knowledge of the use of various plants that are needed for healing, medicine, cultural and spiritual purposes. Many plants are consumed as food, making beverages, and medicinal purposes.</p> <p>Lake St. Martin First Nation indicated that the flooding of Lake St. Martin has resulted in impacts to the harvest of medicinal herbs and plants.</p> <p>Lake Manitoba First Nation reported that there are traditional medicines on the east and west side of Lake St. Martin that are used to cure toothaches and respiratory issues and that these sites will be affected by high water.</p> <p>Lake St. Martin First Nation reported that plants are used for traditional medicines, teas, and food sources for both humans and wildlife.</p> <p>Plant species identified by Lake St. Martin First Nation include: wild rice, peppermint, ginger root, Labrador tea, sweetgrass, bear grass, poison ivy, mushrooms, cedar, juniper, balsam,</p>	<p><u>Plant Species Identified by Lake St. Martin First Nation:</u> wild rice, peppermint, ginger root, Labrador tea, sweetgrass, bear grass, poison ivy, mushrooms, cedar, juniper, balsam, spruce, white birch, pine, lemongrass, maple, Seneca root, moss, highbush cranberry, chokecherry, bearberry, wild strawberry, raspberry, Saskatoon, hazelnut, acorns, tobacco, frog leaf, dandelion, sage, wiike, (weke),blueberry</p> <p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> yarrow, , giant hyssop, baneberry, speckled alder, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, beaked hazelnut, hawthorn, tall cinquefoil, shrubby</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>Manitoba Infrastructure acknowledges that the information about use of plants and plant harvesting by Lake St. Martin First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use plants and plant harvesting by Lake St. Martin First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Lake St. Martin First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous people , the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory</p>

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<p>spruce, white birch, one, lemongrass, maple, Seneca root, moss, highbush cranberry, chokecherry, bearberry, wild strawberry, raspberry, Saskatoon, hazelnut, acorns, tobacco, frog leaf, dandelion, sage, wiike (weke) and blueberry.</p> <p>Lake St. Martin First Nation reported that sage, sweetgrass, and tobacco have ceremonial significance.</p> <p>Lake Manitoba First Nation reported that Sweetgrass is harvested on highway 6 near Hilbre to Moosehorn.</p> <p>Lake Manitoba First Nation reported that mushrooms found at Sugar Island and lemongrass grows at Big Rock and the Pas. Seneca root is found on Sugar Island.</p> <p>Lake St. Martin First Nation reported that berries are important medicinal herbs for the community.</p> <p>Lake St. Martin First Nation reported that berries used to be abundant in the community before the 2011 flood.</p> <p>Lake St. Martin First Nation reported that wiike (weke) has not grown in the reserve since the 2011 flood.</p> <p>Lake St. Martin Reported that plants and medicines were an important income source, noting that the community would earn income from Seneca root until 1970s. Today, many people still dig Seneca root to supplement their income.</p> <p><u>Issues and Concerns:</u></p> <p>Lake St. Martin First Nation is concerned that the Project will have serious impacts on medicinal plant harvesting.</p> <p>Lake St. Martin First Nation is concerned that a permanent vegetative cover will not establish in LMOC.</p> <p>Lake St. Martin First Nation is concerned that the Birch Creek wetlands may shrink or be negatively affected during drought due to significant inflow being intercepted from the LMOC.</p> <p>Lake St. Martin First Nation is concerned that both aquatic habitat and wetlands will degrade and retract in size and area.</p> <p>Lake St. Martin First Nation is concerned that terrestrial vegetation removed by the channels and vegetation around Lake St. Martin and Buffalo Lake will affect the traditional harvesting of herbs and plants for medicine for their First Nation community</p> <p>Lake St. Martin First Nation is concerned that there is potential for accidental grass/wildfires that could occur from construction activities other than burning clearing material.</p> <p>Lake St. Martin First Nation is concerned that downgradient side of the channels will see increased dryness in the soil. This will ultimately reduce soil capability and productivity that will become as much of an impediment to agriculture and harvesting of traditional foods and medicines as inundation.</p>	<p>cinquefoil, Canada fleabane, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugle-weed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, , bracken (fiddlehead), wintergreen, bur oak, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, red clover, dwarf blueberry, bog blueberry, cranberry, logan berry, downy arrowwood, wild grapes,</p> <p><u>Locations:</u> Lake St. Martin is within the PDA. Fairford River is in the PDA. Dauphin River and Portions of Lake Pineimuta are in the LAA. Willow Point, Birch Creek wetlands and Buffalo Lake, Sugar Island and Bear Creek are located within the LAA. Mooshorn, Hilbre, Big Rock are located within the LAA. The Pas is located outside of the RAA.</p>	<p>requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<ul style="list-style-type: none"> As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible 	<p>committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7). As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Lake St. Martin First Nation to discuss the Environmental Management Plans. As of mid-March, 2022, Lake St. Martin First Nation has not confirmed a meeting date. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Lake St. Martin First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
May 31, 2022

Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Lake St. Martin First Nation is concerned that harvesting of traditional medicines, etc. will be forced further afield.</p> <p>Lake St. Martin First Nation reported that the area around Bear Creek is an important area for traditional uses and are concerned that the proposed permanent channel may affect the area.</p> <p>Lake St. Martin First Nation reported that traditional gathering practices have declined since the 2011 flood, noting that displacement due to flood has disconnected the people to their traditional food and impacted the natural growth of plants and medicine.</p> <p>Lake St. Martin First Nation reported flooding has affected growth of berries on the shoreline of Lake St. Martin.</p> <p>Lake St. Martin First Nation is concerned that modification of the terrestrial and wetland habitat adjacent to the LSMOC impacts Lake St. Martin First Nation traditional land usage, cultural rights, and medicinal plant harvesting.</p> <p>Lake St. Martin First Nation is concerned that revegetation of the channel ROWs with non-native vegetation on an unnatural landscape will not promote biodiversity.</p> <p>Lake St. Martin First Nation is concerned that culturally significant plants, such as Seneca root, will be impacted by the Project. Lake St. Martin First Nation considers the impact to culturally significant terrestrial plants as an impact to their treaty and traditional rights to harvest for sustenance, medicinal, and spiritual purposes.</p> <p>Lake St. Martin First Nation is concerned that compensation does not fully mitigate all Project effects and do not re-establish or replace the same balance of terrestrial natural vegetation or the same diversity of wetlands.</p> <p>Lake St. Martin First Nation is concerned about the loss of traditional herbs and medicines taken by the footprint of the Project.</p> <p>Lake St. Martin First Nation is concerned about the degradation of the marsh caused by the Lake Manitoba channels reducing natural variability of Lake Manitoba and Lake St. Martin marshes and meadows, impacting Lake St. Martin First Nation treaty and traditional rights.</p> <p>Lake St. Martin First Nation is concerned that physical models cannot fully predict environmental impacts to the ecosystem and bio-physical systems such as plant biodiversity impacts. Lake St. Martin First Nation considers biodiversity impacts as impairing Lake St. Martin First Nation's ability to utilize their reserve, traditional lands and waters, and the resources within them.</p>			<p>to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Lake St. Martin First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
May 31, 2022

Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Lake St. Martin First Nation is concerned that the Project will impact wetlands by changing wetland composition and hydrology, specifically in Lake St. Martin, Fairford River, Birch Creek. Wetland degradation may result in loss of ecological function and impact Lake St. Martin First Nation's ability to use the wetlands as a source of sustenance, provide medicinal plants, spiritual, aesthetic, and are culturally significant to Lake St. Martin First Nation.</p> <p>Lake St. Martin First Nation is concerned that the loss or alteration of 1,913.9 ha of aquatic and terrestrial habitat and the impact of that loss on adjacent lands will permanently impact Lake St. Martin First Nation traditional and treaty rights to utilize these lands and harvest resources.</p> <p>Lake St. Martin First Nation is concerned that the loss or alteration of 1,913.9 ha of aquatic and terrestrial habitat and the impact of that loss on adjacent lands will permanently impact Lake St. Martin First Nation traditional and treaty rights to utilize these lands and harvest the vegetative resources that occupied these lands for medical, spiritual, cultural, aesthetic, and sustenance purposes.</p> <p>Lake St. Martin First Nation is concerned that the wetlands will shrink and degrade overtime as a result of regulating Lake Manitoba, Lake St. Martin, and Lake Piniemuta to narrower operating regimes.</p> <p><u>Recommendations made by Lake St. Martin First Nation:</u></p> <ul style="list-style-type: none"> • Lake St. Martin First Nation recommends resource mapping at Willow Point. • Lake St. Martin First Nation recommends providing fertilizers, topsoil, etc. to those who may be affected to help offset the adverse effects. • Lake St. Martin First Nation recommends prevention and plans to combat/suppress fires resulting from construction works be considered. • Lake St. Martin First Nation recommends a detailed survey of SAR plant species be completed. • Lake St. Martin First Nation recommends that Lake St. Martin First Nation has a definitive role on the Environmental Advisory Committee as one of the most impacted Nations and requires committed Lake St. Martin First Nation technical support funding to evaluate project specific project impacts, monitoring data and studies, and targeted mitigation studies during construction, operation, and maintenance of this Project. <p><u>Sources:</u> Manitoba Infrastructure 2018b</p>				

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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
LSMFN n.d. LSMFN 2021 LSMFN 2020a LSMFN 2020b				
Travel Routes				
<p>Existing Conditions:</p> <p>Lake St. Martin First Nation reported travel by various modes to pursue their traditional land and resource use. They used dog teams, horses, canoes, boats, and most recently ATV, bombardier and ski-doo.</p> <p>Lake St. Martin First Nation reported that the community was known for its construction of yawls and snowshoes. During winter they used caboose, dogs, and horses. During fall and summer, they would canoe.</p> <p>Lake St. Martin First Nation reported accessing lakes for transportation within the Interlake watershed.</p> <p>Lake St. Martin First Nation reported that Lake St. Martin was used as a travel route to for land-based activities and ceremonies, noting that Lake St. Martin was a “water highway” where Lake St. Martin community members would travel by boat or canoe to visit the neighbouring communities of Dauphin River, Little Saskatchewan and Pinaymootang, as well as other communities on Lake St. Martin.</p> <p>Lake St. Martin First Nation reported that there are many traditional trails, Lake St. Martin boating navigation routes, and snowmobile trails for recreation, native plant and fish harvesting and hunting purposes.</p> <p><u>Issues and Concerns:</u></p> <p>Lake St. Martin First Nation expressed concerns regarding Lake St. Martin Access Road Project including, the road’s location, whether or not it will be gated, and potential for impacts to road maintenance.</p> <p>Lake St. Martin First Nation reported that 806 Easement is a concern to the community.</p> <p>Lake St. Martin had reported that they have no access to Lake St. Martin since the flood.</p> <p>Lake St. Martin First Nation is concerned that trees can collapse into the lake as their root structures are compromised, adding to serious navigational hazards that make travel on the water considerably dangerous.</p> <p>Lake St. Martin First Nation is concerned that boat navigation will be affected by silt deposition.</p>	<p><u>Locations:</u> Lake St. Martin is within the PDA. The Dauphin River is within the LAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>Manitoba Infrastructure acknowledges that the information about use of travel routes by Lake St. Martin First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of travel routes harvesting by Lake St. Martin First Nation to occur throughout the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Lake St. Martin First Nation to discuss the Environmental Management Plans. As of mid-March, 2022, Lake St. Martin First Nation has not confirmed a meeting date. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Lake St. Martin First Nation is concerned that the access road and transmission line are an impact of Lake St. Martin First Nation traditional and treaty rights in terms of opening Lake St. Martin First Nation traditional and reserve lands for public access resulting in an impact to cultural and Indigenous harvesting for sustenance and aesthetic value.</p> <p>Lake St. Martin First Nation is concerned about impacts to navigation and trails, impacting their ability to conduct traditional activities such as recreation, hunting, fishing, and harvesting on reserve lands and traditional territories.</p> <p>Lake St. Martin First Nation is concerned about restricted access as a mitigation measure.</p> <p><u>Recommendations made by Lake St. Martin First Nation</u></p> <ul style="list-style-type: none"> Lake St. Martin First Nation recommends more discussion on access road is required. Lake St. Martin First Nation recommends that a bridge be built on Lake St. Martin so community members can access the reserve on the other side. Lake St. Martin First Nation recommends that Lake St. Martin First Nation has a definitive role on the Environmental Advisory Committee as one of the most impacted Nations and requires committed Lake St. Martin First Nation technical support funding to evaluate project specific project impacts, monitoring data and studies, and targeted mitigation studies during construction, operation, and maintenance of this Project. <p><u>Sources:</u></p> <p>Manitoba Infrastructure 2019a</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.12</p> <p>LSMFN n.d.</p> <p>LSMFN 2021</p> <p>LSMFN 2020a</p> <p>LSMFN 2020b</p>		<p>Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<ul style="list-style-type: none"> The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Lake St. Martin First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify</p>

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				<p>anticipated jobs as well as construction scheduling and sequencing to enable FPD1 to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD1 are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Lake St. Martin First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p><u>Existing Conditions:</u></p> <p>Lake St. Martin First Nation stated that the land is important for well-being (minopimatisiwiin). A central tenet for mino pimitisiwiin is the connection to land, and how the people lived a life that was based on hard work and living off the land. Elders pass their knowledge of land, resources, governance, and spirituality to the younger generation when they are on their traditional territory for land-based activities.</p> <p>Lake St. Martin First Nation reported that the broader area of land use includes the area between Lake Manitoba and Western shore of entire Lake Winnipeg. This is the ancestral territory of Lake St. Martin First Nation that is significant to live an Anishinaabe mino pimatisiwiin (wellbeing). The concentrated area of Land use is a part of the ancestral territory that is imperative to meet the urgent and immediate food, shelter, and cultural needs and priorities of the community.</p> <p>Lake St. Martin First Nation Elders shared how the water and several riparian areas that were of specific spiritual and cultural significance. These sites were mostly on the north shore of the south basin in the old community of Lake St. Martin First Nation.</p> <p>Lake St. Martin First Nation reported that cultural practices also took place where the islands are located toward the north side of the south basin of Lake St. Martin. The Elders stated that the little people "mayme-ngwayshi" lived on the little islands and Elders stated that the mayme-ngway-shi do not like being</p>	<p><u>Locations:</u> Lake St. Martin is with the PDA. Portions of Lake Winnipeg and Lake Manitoba are within the PDA. Bear Creek, Big Rock and Sugar Island are located within the LAA. Rabbit Point is located outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>Manitoba Infrastructure acknowledges that the information about use of habitation, cultural and spiritual sites and areas by Lake St. Martin First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of habitation, cultural and spiritual sites and areas by Lake St. Martin First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Lake St. Martin First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>disturbed. The Elders also stated that the mayme-ngway-shi also live inside of the cliff-sides east side of Sugar Island.</p> <p>Lake St. Martin has a deep spiritual significance to Lake St. Martin First Nation. Lake St. Martin is a historic sacred site. An important battle took place at Lake St. Martin. The lake is sacred, spiritual, and historically significant due its role as a mass grave when bodies were strewn into the water.</p> <p>Lake St. Martin First Nation reported that there are unmarked community member graves along the shore of Lake St. Martin near Rabbit Point and are flooded because of high water of Lake St. Martin.</p> <p>Lake St. Martin First Nation have reported finding buffalo bones in Lake St. Martin, which signifies a tradition of hunting buffalo.</p> <p>Lake St. Martin First Nation) shared that Big Rock has an important cultural and spiritual significance where traditional, cultural and spiritual events took place. Big Rock is home of the Thunderbirds.</p> <p>Lake St. Martin has reported the presence of burials along the north shores of Lake St. Martin.</p> <p>Lake St. Martin reported that there is a mass burial site on the shores (of Lake St. Martin) This mass burial site is from the Spanish flu in the 1900s where Lake St. Martin First Nation, like other communities, was hit hard by the pandemic flu.</p> <p><u>Issues and Concerns:</u></p> <p>Lake St. Martin First Nation is concerned that the Project will have serious impacts on cultural heritage and their way of life,</p> <p>Lake St. Martin First Nation reported that the area around Bear Creek is an important area for traditional uses and are concerned that the proposed permanent channel may affect the area.</p> <p>Lake St. Martin First Nation is concerned about LMOC aquifer depressurization and impacts on Lake St. Martin First Nation reserve and traditional lands.</p> <p>Lake St. Martin First Nation is concerned about impacts to on reserve domestic wells.</p> <p>Lake St. Martin First Nation is concerned that they have not been approached as to our understanding of the impacts of the EOC operations on our reserve, traditional lands, natural resources and socio-economic wellbeing.</p> <p>Lake St. Martin First Nation expressed that any limitation of and access to land and resources used for Lake St. Martin treaty and traditional purposes is a permanent impact to Lake St. Martin First Nation rights to utilize these lands and harvest resources.</p>		<p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Apart from the two known cemeteries, no burials or unmarked graves have been identified or reported in the RAA. Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<p>barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, effects on cultural or spiritual sites within the PDA are predicted to be long-term in duration, high in magnitude, continuous, irreversible, and disturbed. Timing is not applicable, as changes to cultural and spiritual sites or areas would occur irrespective of day or season.</p>	<p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Lake St. Martin First Nation to discuss the Environmental Management Plans. As of mid-March, 2022, Lake St. Martin First Nation has not confirmed a meeting date. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Lake St. Martin First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support</p>

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<p>Lake St. Martin First Nation notes that escalating cumulative effects due to development and operations of the provincial flood control system is being experienced and is concerned that the construction of the LMOC and LSMOC will cause these effects to persist and cause greater on reserve flooding and Lake St. Martin flooding.</p> <p><u>Recommendations made by Lake St. Martin First Nation:</u></p> <ul style="list-style-type: none"> Lake St. Martin First Nation would consider the purchase of a Lake St. Martin flood easement in the form of financial and replacement lands to be a compensation measure for the hydraulic impacts of the Project on Lake St. Martin First Nation reserve and traditional lands. Lake St. Martin First Nation recommends that wetland loss on First Nation reserves be compensated at higher ratios than the Water Rights Act guidelines due to the cultural, spiritual, aesthetic, and resource harvesting benefits to Indigenous groups. Lake St. Martin First Nation recommends financial compensation and replacement of land for lost lands or lands that are less productive due to permanent loss, alteration of water regime of Lake St. Martin, and potential irreversible impacts on fishery, wildlife, and vegetation. Lake St. Martin First Nation recommends that the Project address the community infrastructure, social, and health services impacted by the 2011 prior to Project implementation. Lake St. Martin First Nation recommends that Lake St. Martin First Nation has a definitive role on the Environmental Advisory Committee as one of the most impacted Nations and requires committed Lake St. Martin First Nation technical support funding to evaluate project specific project impacts, monitoring data and studies, and targeted mitigation studies during construction, operation, and maintenance of this Project. <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.12 LSMFN 2021 LSMFN 2020a LSMFN 2020b</p>				<p>this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Lake St. Martin First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>Little Saskatchewan First Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u></p> <p>Little Saskatchewan First Nation reported hunting and trapping moose, white-tailed deer, muskrat, American badger, elk, wolf, coyote, red fox, lynx, squirrel, rabbit, American marten, fisher, weasel, mink, river otter, beaver, geese (including eggs), ducks, grouse, prairie chicken, caribou, Canada goose, partridge, seagull (eggs).</p> <p>Little Saskatchewan First Nation reported hunting and trapping in the preferred locations throughout their territory, but have been impacted by a suite of cumulative effects, including impacts from flooding events and fluctuating water levels as well as government regulations, private land designations, and other access issues. Little Saskatchewan First Nation reported that hunting and trapping are important activities. Little Saskatchewan described hunting and trapping a variety of mammals and birds, in the Project Area and beyond.</p> <p>Little Saskatchewan First Nation reported that one of the most important locations for hunting and trapping in Little Saskatchewan First Nation territory is Dunsekikan Island, located in Lake St. Martin. Little Saskatchewan First Nation reported that Dunsekikan Island is known for being high quality habitat for moose, deer, and fur-bearing species</p> <p>Little Saskatchewan First Nation reported that trapping was an important source of revenue for Little Saskatchewan First Nation members in years past and continues to be important today for those who are able to get out on the land.</p> <p>Little Saskatchewan First Nation reported that moose and white-tailed deer are important species for subsistence.</p> <p>Little Saskatchewan First Nation reported that high water affects the availability of grouse and rabbits.</p> <p>Little Saskatchewan First Nation has reported hunting and trapping locations in the PDA, LAA and RAA. Important locations include, but are not limited to, Sugar Island on Lake St. Martin, Willow Point and Bad Boys Camp to the immediate north of the Project Footprint on Lake Winnipeg, Davis Point, Kinwow Point on Lake Winnipeg, Moosehorn near Ashern, Pine Island in Lake Manitoba and Peonan Point on Lake Manitoba.</p> <p>Little Saskatchewan First Nation reported hunting in the RAA and LAA, including an area southwest of Lake St. Martin that overlaps with the Lake St. Martin channel access road.</p>	<p><u>Species Identified by Little Saskatchewan First Nation:</u> moose, white-tailed deer, muskrat, American badger, elk, wolf, coyote, red fox, lynx, squirrel, rabbit, American marten, fisher, weasel, mink, river otter, beaver, geese, ducks, grouse, prairie chicken, caribou, Canada goose, partridge, seagull (eggs).</p> <p><u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> mule deer, black bear, wolverine, short-tailed weasel, long-tailed weasel, mallard, ruffed grouse, sharp-tailed grouse, bald eagle.</p> <p><u>Locations:</u> Lake St. Martin is in the PDA. The area southwest of Lake St. Martin that overlaps with the Lake St. Martin channel access road is in the RAA. GHA 21 intersects the PDA, GHA 16 and GHA 25 intersect the LAA. Portions of Pineimuta Lake are in the LAA. Bear Creek, the Fairford area, Dauphin River Road, Ashern, Moosehorn, Dunsekikan Island, Big Fisher Island, Steep Rock, Big Rock, Sugar Island and Willow Point are in the LAA.</p> <p>Long Point, Pine Island, Peonan Point, and Davis Point are outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about hunting and trapping by Little Saskatchewan First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Little Saskatchewan First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Little Saskatchewan First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife— either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups</p>

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<p>Little Saskatchewan First Nation noted that muskrats are an important fur-bearing species, whose habitat is dependent on consistent water levels.</p> <p>Little Saskatchewan First Nation noted changes to habitat of traditionally important species including moose which have nothing to eat, and waterfowl which no longer have sandy shoreline on which to nest and lay eggs.</p> <p>Little Saskatchewan First Nation noted changes in the quantities of various species, with numbers declining over the years, especially on the eastern shore of Lake St. Martin and elsewhere around the Lake (include species listed in the quote that follows)</p> <p>Little Saskatchewan First Nation reported how changes in wildlife habitat and animal quantities have caused Little Saskatchewan First Nation to hunt for different species (elk instead of moose) and hunt in different areas than those they traditionally preferred.</p> <p>Little Saskatchewan First Nation reported that predation by wolves contributes to the decline in harvestable animals, and that wolf populations increase yearly.</p> <p>Little Saskatchewan First Nation reported that hunting provides food security in a community where store-bought food prices are prohibitively expensive and that sharing meat with the community is an important cultural practice.</p> <p>Little Saskatchewan First Nation reported that species of cultural importance include, but are not limited to: elk, moose, white-tailed deer, lynx, duck and goose, marten, badger, fisher and other furbearers.</p> <p><u>Issues and Concerns:</u></p> <p>Little Saskatchewan First Nation raised concerns regarding the Project's on going flooding in the region from control structures and increases in water levels on Lake Winnipeg that may cause the erosion of lake shoreline that diminishes the value of hunting.</p> <p>Little Saskatchewan First Nation expressed concern that local flooding may interfere with local hunting and trapping.</p> <p>Little Saskatchewan First Nation expressed concern regarding effects to harvesting of furbearers.</p> <p>Little Saskatchewan First Nation expressed concern that access road construction has the potential to disturb wildlife.</p> <p>Little Saskatchewan First Nation expressed concern about impact wildlife habitat and migrations corridors, which would in turn further reduce quantities of wildlife available for harvesting.</p>		<p>Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>ROW and not extend beyond the PDA (Chapter 8, Section 8.2).</p> <ul style="list-style-type: none"> Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA</p>	<p>engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Little Saskatchewan First Nation to discuss the Environmental Management Plans. A meetings was held with Little Saskatchewan First Nation on the following dates: October 7, 2020. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Little Saskatchewan First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing</p>

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<p>Little Saskatchewan First Nation have concerns regarding changes to animal habitat (especially muskrats and ungulates) due to flooding and fluctuating water levels.</p> <p>Little Saskatchewan First Nation have concerns regarding declines in animal quantities due to habitat loss and increased predation by wolves.</p> <p>Little Saskatchewan First Nation have concerns regarding declines in animal quality.</p> <p>Little Saskatchewan First Nation is concerned with criminalization of hunting practices due to regulations of timing and location of firearm use;</p> <p>Little Saskatchewan First Nation is concerns regarding psychosocial impacts on Little Saskatchewan First Nation members due to all the above existing impacts, which have prevented them from practicing their Aboriginal and treaty rights in their territory for over a decade.</p> <p>Little Saskatchewan First Nation is concerned that there are no mitigation and monitoring measures with respect to interactions between the Project and Indigenous hunting and trapping and wildlife and wildlife habitat (including moose, elk and furbearers)</p> <p>Little Saskatchewan First Nation is concerned about avoidance effects, habitat fragmentation and correlation between linear features and increased predation of ungulate populations (especially moose).</p> <p><u>Recommendations made by Little Saskatchewan First Nation:</u></p> <ul style="list-style-type: none"> • Little Saskatchewan First Nation recommend that they are provided the opportunity to be involved with the development of the EMPs. • Little Saskatchewan First Nation recommend that Manitoba Infrastructure be more responsive to Little Saskatchewan First Nation's Project concerns. • Little Saskatchewan First Nation recommend a Cultural Awareness, Recognition and Reconciliation Plan (for Project personnel) • Little Saskatchewan First Nation recommend Involvement of Interlake First Nations in Construction Monitoring Plan • Little Saskatchewan First Nation recommend the development of a land-based Harvesting Monitoring Plan • Little Saskatchewan First Nation recommend the development of a Wildlife and Wildlife Habitat Management Plan • Little Saskatchewan First Nation recommend a revised wildlife and wildlife habitat assessment 				<p>discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Little Saskatchewan First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<ul style="list-style-type: none"> Little Saskatchewan First Nation recommend that Manitoba Infrastructure provide a supplemental memo that re-examines the potential Project-specific and cumulative adverse effects of the outlet channels, as a linear feature contributing to habitat fragmentation, on species of high cultural importance to Little Saskatchewan First Nation, including, but not limited to elk, moose, white-tailed deer, lynx, duck and goose, marten, badger, fisher and other furbearers. This memo should cite peer-reviewed scientific studies that have examined the effects that similar linear structures pose across a range of representative species, including ungulates and discuss any limitations there may be in drawing conclusions about the effects of the outlet channels from the findings of these studies. <p><u>Sources:</u> Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.13 Golder Associates 2018 LSFN 2020a LSFN 2021a Manitoba Infrastructure 2019b Olson et al 2020b</p>				
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u> Little Saskatchewan First Nation reported fishing for northern pike, walleye (pickerel), and lake whitefish, sauger as well as a variety of other species. Little Saskatchewan First Nation reported that the following species occur in the Project RAA and the south basin of Lake Winnipeg and they are of particular concern: mussel, bigmouth buffalo, sturgeon, silver chub, big mouth shiner, chestnut lamprey. Little Saskatchewan First Nation reported subsistence and recreational fishing occur at Lake St. Martin, Dauphin River, Mantagao River, and Sturgeon Bay year-round. Little Saskatchewan First Nation also reported fishing at Lake Winnipeg, Lake Manitoba, Ashern, Big Rock and Pineimuta Lake, Dunsekikan Island, Silver Island, Basket Creek, Partridge Creek, Little Saskatchewan First Nation reported that water and fishing are important Valued Components for Little Saskatchewan First Nation members. Little Saskatchewan First Nation territory is a place of lakes and rivers, with Little Saskatchewan First Nation people situated along the shores of Lake St. Martin.</p>	<p><u>Species Identified by Little Saskatchewan First Nation:</u> northern pike, walleye, lake whitefish, sauger, maple leaf mussel, bigmouth buffalo, sturgeon, silver chub, big mouth shiner, chestnut lamprey. <u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, common carp, channel catfish, burbot, trout, perch. <u>Locations:</u> Lake St. Martin is within the PDA. Portions of Lake Winnipeg and Lake Manitoba are within the PDA. Portions of Pineimuta Lake are in the LAA. The Dauphin River is within the LAA. Sturgeon Bay is within the PDA. Mantagao River is within the RAA, Big Rock Dunsekikan Island, and Big Fisher Island within the LAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use. Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by Little Saskatchewan First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Little Saskatchewan First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Little Saskatchewan First Nation. During a flood event, water flows across the land and can pick up sediments that contain chemicals such as fertilizers, pesticides and other contaminants. Under current conditions, this</p>	<p>Effects regarding sediments, debris and contamination are considered in the SWMP, SMP, PERs and Debris Management Plan. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Any storage and use of chemicals is strictly regulated and application of chemicals requires training and a permit. Sediments will be monitored, and visual inspections will be carried out as part of the SWMP and SMP and contingency mitigation measures such as silt fencing and materials to minimize bank erosion will be used, where necessary. The banks of the channel will be revegetated to reduce erosion. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project. For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP. The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Little Saskatchewan First Nation reported that Little Saskatchewan First Nation territory is an ideal location for fishing (subsistence and commercial) because of its proximity to water. Little Saskatchewan First Nation has identified locations like Dauphin River, Dunsekikan Island, and Big Fisher Island as fishing locations.</p> <p>Little Saskatchewan First Nation reported that fishing has been slow and production is down.</p> <p>Little Saskatchewan First Nation reported that commercial fishing is an important source of income for Little Saskatchewan First Nation families and community.</p> <p>Little Saskatchewan First Nation has noted that surface waters have been altered from their natural courses leading to an increase in the incidence of flooding.</p> <p>Little Saskatchewan First Nation indicated that degradation in surface water quality has impaired historic surface drinking water drinking sources and may be affecting fish health.</p> <p>Little Saskatchewan First Nation commented on reluctance to drink from various natural water sources, including Lake Winnipeg, due to contamination.</p> <p>Little Saskatchewan First Nation reported that fluctuating water levels and sedimentation also impact fish habitat, noting that declines of quality and quantity of suckers and other fish is caused by submersion and drying-out of habitat, as well as water contamination.</p> <p>Little Saskatchewan First Nation reported that flooding events and fluctuating water levels on Lake St. Martin caused by the operation of existing flood management infrastructure situated on the Fairford River, have caused impacts to Little Saskatchewan First Nation water and fishing values. These impacts include: loss of equipment due to water-level fluctuations on Lake St. Martin associated with the operation of the Fairford River Water Control Structure (FRWCS), and associated loss of income and changes to fish habitat and migration corridors due to flooding and fluctuating water levels on Lake St. Martin associated with the operation of the FRWCS.</p> <p>Little Saskatchewan First Nation reported the 2011 flood has made Little Saskatchewan First Nation's traditional land use, rights critically vulnerable to any change.</p> <p><u>Issues and Concerns:</u></p> <p>Little Saskatchewan First Nation expressed concern regarding groundwater and surface water.</p> <p>Little Saskatchewan First Nation raised concerns regarding changes in regional flows which will affect ongoing flooding and shoreline erosion and degrading water quality and algal issues.</p>	<p>Basket Creek and Partridge Creek is within the RAA. Silver Island is outside of the RAA.</p>	<p>material flows through the Fairford River and the Dauphin River during floods. The Project will reduce the amount of overland flooding and is therefore expected to reduce the amount of contamination entering Lake Winnipeg.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily</p>	<ul style="list-style-type: none"> If required, at the start of operation, the water control structure gates can be gradually opened to control sediment levels, based on results of sediment monitoring. There will likely be increases in sediment concentrations at the end of the channel, but they will be managed to address water quality concerns through monitoring and flow adjustments. <p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. 	<p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Little Saskatchewan First Nation to discuss the Environmental Management Plans. A meetings was held with Little Saskatchewan First Nation on the following dates: October 7, 2020. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Little Saskatchewan First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba</p>

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<p>Little Saskatchewan First Nation expressed concerns about flooding and fluctuating water levels, in terms of issues such as impacts to fish harvest and water quality, based on fluctuating water levels potentially introducing land-based contaminants, and sediments.</p> <p>Little Saskatchewan First Nation raised concerns regarding the Projects on going flooding in the region from control structures and increases in water levels on Lake Winnipeg that may cause the erosion of lake shoreline that diminishes the value of fishing.</p> <p>Little Saskatchewan First Nation expressed concerns regarding water quality.</p> <p>Little Saskatchewan First Nation extended concerns to the risks to the health of Little Saskatchewan First Nation members using Lake St. Martin recreationally, due to increased water contaminants being transported into Lake St. Martin by the LMOC.</p> <p>Little Saskatchewan First Nation documented concerns regarding fluctuating water levels, water quality degradation, the mobilization of pollutants and algal blooms in the RAA which limit the safe use of surface water. Little Saskatchewan First Nation identified concerns regarding runoff from farm fields causing impacts to water quality in the RAA.</p> <p>Little Saskatchewan First Nation expressed concern that aquatic ecosystem health in local waterbodies and waterways would be altered by the Project.</p> <p>Little Saskatchewan First Nation also expressed concern about flooding and fluctuating water levels, in terms of potential impacts to water quality.</p> <p>Little Saskatchewan First Nation expressed concerns for fish spawning areas, including, but not limited to, spawning areas, for whitefish</p> <p>Little Saskatchewan First Nation expressed concerns regarding drinking water quality.</p> <p>Little Saskatchewan First Nation expressed concern that the Project may affect water quality, fish quality and distribution thereby affecting commercial and subsistence fishing.</p> <p>Little Saskatchewan First Nation expressed concern regarding mercury in lakes and fish.</p> <p>Little Saskatchewan First Nation expressed concern regarding Increased risk of invasive zebra mussels being brought into Lake St. Martin via Project channels.</p> <p>Little Saskatchewan First Nation expressed concerns about adverse impacts on wildlife from contaminated water.</p>		<p>through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted "in the dry" and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. • Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. 	<p>Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3).Manitoba Transportation and</p>

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<p>Little Saskatchewan First Nation expressed concerns about the potential for changes in water flows to affect fish spawning areas and medicinal plants.</p> <p>Little Saskatchewan First Nation expressed concern about food and economic security, resulting from effects of sedimentation on fishing equipment.</p> <p>Little Saskatchewan First Nation stated that changes to quality and distribution of harvested species for the subsistence or commercial fishing may also affect food or economic security.</p> <p>Little Saskatchewan First Nation indicated that relocation of members for food or economic security may affect family stability and/or result in psychosocial impacts.</p> <p>Little Saskatchewan First Nation expressed concerns about changes in sedimentation patterns and water quality resulting in substantial, long-term impacts to commercial and subsistence fishing on Lake St. Martin, causing some Little Saskatchewan First Nation members to lose access to fish for the FSC and economic purposes.</p> <p>Little Saskatchewan First Nation are concerned about impacts to fish and fish habitat due to Project-related water level fluctuations and increased suspended sediments in the water columns in the south basin of Lake St. Martin.</p> <p>Little Saskatchewan First Nation expressed concerns about impacts to fishing equipment due to Project-related water level fluctuations.</p> <p>Little Saskatchewan First Nation expressed concern about impacts to the health and safety of Little Saskatchewan First Nation members using Lake St. Martin recreationally, due to increased water contaminants being transported into Lake St. Martin by the LMOC.</p> <p>Little Saskatchewan First Nation has Project concerns regarding fish habitat and migration corridors, particularly for whitefish.</p> <p>Little Saskatchewan First Nation is concerned that the Surface Water EMP makes no reference to the Narrows that separates the two basins of Lake St. Martin, even though significant concerns have been repeatedly raised by Indigenous groups through the environmental assessment that the Narrows act as a hydraulic bottleneck that will hold waters back into the south basin of Lake St. Martin.</p> <p>Little Saskatchewan First Nation is concerned that there are no mitigation and monitoring measures with respect to interactions between the Project and inland commercial fishing operations and inland rights-based FSC fishing activities.</p> <p>Little Saskatchewan First Nation is concerned that there are no mitigation and monitoring measures with respect to interactions between the Project and agricultural run-off into LMOC and</p>			<ul style="list-style-type: none"> Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p>Measures to avoid or reduce effects to commercial fishing are identified in the CEMP and include:</p>	<p>Infrastructure will review any information about the aquatic environment and fishing that Little Saskatchewan First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>Lake St. Martin. Little Saskatchewan First Nation is concerned with the impacts (erosion) at west shoreline of Lake St. Martin, where their reserve is located.</p> <p>Little Saskatchewan First Nation is concerned that there is a lack of baseline information regarding Little Saskatchewan First Nation's involvement in the fishery.</p> <p>Little Saskatchewan First Nation is concerned that the Project has a high likelihood to pose adverse impacts to Little Saskatchewan's fishery in Lake St. Martin.</p> <p>Little Saskatchewan First Nation is concerned about the potential effects of the Project related to surface water and hydrological dynamics.</p> <p>Little Saskatchewan First Nation is concerned that the surface water level of the south basin of Lake St. Martin estimates during flooding is higher than Manitoba Infrastructure presented as the maximum potential water level.</p> <p>Little Saskatchewan First Nation is concerned that the Project design will further impact Little Saskatchewan First Nation's fisheries and continue to leave the community vulnerable to future flood management efforts.</p> <p>Little Saskatchewan First Nation is concerned that MTI does not consider the two basins of Lake St. Martin and the narrows which cause a difference in water surface level between the basins.</p> <p><u>Recommendations made by Little Saskatchewan First Nation:</u></p> <ul style="list-style-type: none"> • Little Saskatchewan First Nation recommend that they are provided the opportunity to be involved with the development of the EMPs. • Little Saskatchewan First Nation recommend that Manitoba Infrastructure be more responsive to Little Saskatchewan First Nation's Project concerns. • Little Saskatchewan First Nation recommend a Cultural Awareness, Recognition and Reconciliation Plan (for Project personnel) • Little Saskatchewan First Nation recommend Involvement of Interlake First Nations in Construction Monitoring Plan • Little Saskatchewan First Nation recommend the development of a Commercial Fishing Management Plan • Little Saskatchewan First Nation recommend the development of a Commercial Fisheries Access Management Plan • Little Saskatchewan First Nation recommend the development of a Fish Habitat Protection Management Plan 			<ul style="list-style-type: none"> • Manitoba Transportation and Infrastructure will engage with commercial fish harvesters, anglers, local resource users, and MSD Regional Officials to address potential conflict, disturbance, or access restrictions to fishing/harvesting areas in the PDA and LAA, and availability of fish resources. <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 6), after mitigation there are no adverse effects predicted to overall surface water quality in the region and the composition and volume of water being transported from Lake Manitoba to Sturgeon Bay is not expected to be substantially altered by the Project construction or operation. As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	

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<ul style="list-style-type: none"> • Little Saskatchewan First Nation recommend the development of an Invasive Aquatic Species Management Plan • Little Saskatchewan First Nation recommend the development of a Channel Erosion Monitoring Plan • Little Saskatchewan First Nation recommend a revised water quality assessment • Little Saskatchewan First Nation recommend a revised fish and fish habitat assessment • Little Saskatchewan First Nation recommend the development of a supplementary memo to conduct a baseline review of Little Saskatchewan First Nation-involvement in both FSC and commercial fishing activities • Little Saskatchewan First Nation recommend that Manitoba Infrastructure assess and describe potential effects on Little Saskatchewan First Nation fishing activities resulting from changes to the abundance and distribution of fish caused by the Project (both construction and operation) • Little Saskatchewan First Nation recommends that a water level recording station be set up on the north basin of Lake St. Martin to empirically determine the difference in water levels between the basins. <p><u>Sources:</u> Manitoba Infrastructure Indigenous Engagement Program Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.13 Halket Environmental Consultants 2021 LSFN 2020a LSFN 2020b LSFN 2020c LSFN 2021a LSFN 2021b Manitoba Infrastructure 2019b Golder Associates 2018 Olson et. al 2020b</p>				

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Plants and Plant Harvesting				
<p><u>Existing Conditions:</u></p> <p>Little Saskatchewan First Nation reported harvesting blueberry, Canadian gooseberry, cedar, choke cherry, highbush cranberry, Manitoba maple, mulberry, peanut, hog-peanut, raspberry, rattlesnake root, sage, Saskatoon berry, Seneca root, sweetgrass, tamarack, <i>weeke</i> (<i>weke</i>), wild mint, wild strawberry, chaga, balsam poplar, bearberry, jackpine, juniper, Labrador tea, strawberry.</p> <p>Little Saskatchewan First Nation reported gathering plants and berries in the RAA and LAA in areas that include the mouth of Beardy Creek, Partridge Creek, Basket Creek, Inlet Creek, shoreline of Lake Manitoba.</p> <p>Little Saskatchewan First Nation indicated that berry picking takes place near Lake St. Martin and the Dauphin River area.</p> <p>Little Saskatchewan First Nation reported collecting other food and medicinal plants or plant products, including <i>weeke</i> (<i>weke</i>), Seneca root, cedar, and maple sap, and that they do so in a range of areas in the Project Area that include Pineimuta Lake, Steep Rock, Big Rock, Grand Rapid Road, Bear Creek, Gypsumville, the Lake St. Martin shoreline in and around the Little Saskatchewan First Nation reserve and elsewhere, the Fairford area, Dauphin River Road, Sugar Island, Long Point, and as far east as the Lake Winnipeg shoreline near the Dauphin River.</p> <p>Little Saskatchewan First Nation reported that prior to the 2011 flood, raspberries, chokecherries, strawberries, and gooseberries were gathered.</p> <p>Little Saskatchewan First Nation indicated that other berry-gathering places prior to the 2011 flood include Little Saskatchewan 48 Reserve and The Narrows 49 Reserve.</p> <p>Little Saskatchewan First Nation noted that Seneca root and <i>weeke</i> (<i>weke</i>), medicinal plants, are both gathered on the Reserve.</p> <p>Little Saskatchewan First Nation indicated that the flooding of Lake St. Martin has resulted in impacts to the harvest of medicinal herbs and plants.</p> <p>Little Saskatchewan First Nation reported that medicinal plants are important to the health of Little Saskatchewan First Nation people. Traditional plants are used to treat various ailments.</p> <p>Little Saskatchewan First Nation reported that recent major flooding events in Lake St. Martin saw flooding extend into medicine picking areas for <i>weeke</i> (<i>weke</i>) and Seneca root, reducing Little Saskatchewan First Nation members' access to these areas, Little Saskatchewan First Nation noted that these impacted areas have not yet recovered.</p>	<p><u>Species Identified by Little Saskatchewan First Nation:</u> blueberry, Canadian gooseberry, cedar, chokecherry, highbush cranberry, Manitoba maple, mulberry, peanut, hog-peanut, raspberry, rattlesnake root, sage, Saskatoon berry, Seneca root, sweetgrass, tamarack, <i>weeke</i> (<i>weeke</i>), wild mint, wild strawberry, chaga, balsam poplar, bearberry, jackpine, juniper, Labrador tea.</p> <p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, giant hyssop, baneberry, speckled alder, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugle-weed, Canada mayflower, morel, yellow evening primrose, self-heal, pin cherry, sand cherry, plum, bracken (fiddlehead), wintergreen, bur oak, wild black currant, red currant, prairie rose, wild rose, cloud berry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, red clover, dwarf blueberry, bog blueberry, cranberry, logan berry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> Lake St Martin and the shoreline of Lake St. Martin is within the PDA. Portions of the Lake Winnipeg shoreline and Lake Manitoba shoreline are within the PDA. Beardy Creek is in the PDA Little Saskatchewan 48 Reserve and The Narrows 49 Reserve is within the LAA. Dauphin River is</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>Manitoba Infrastructure acknowledges that the information about use of plants and plant harvesting by Little Saskatchewan First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use plants and plant harvesting by Little Saskatchewan First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Little Saskatchewan First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7). As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Little Saskatchewan First Nation to discuss the Environmental Management Plans. A meetings was held with Little Saskatchewan First Nation on the following dates: October 7, 2020. In addition, due to limitations resulting from the COVID-19 pandemic, a</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
May 31, 2022

Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Little Saskatchewan First Nation reported the 2011 flood has made Little Saskatchewan First Nation's traditional and use, vulnerable to any change.</p> <p><u>Issues and Concerns:</u></p> <p>Little Saskatchewan First Nation expressed concern regarding loss and/or degradation of farmlands and/or food plant habitats due to loss of access or conversion of upland to wetland/ flooded areas.</p> <p>Little Saskatchewan First Nation expressed concern that traditional berry picking and medicine harvest areas may be affected by local flooding.</p> <p>Little Saskatchewan First Nation expressed concern that access road construction has the potential to disturb vegetation.</p> <p>Little Saskatchewan First Nation is concerned about degradation and loss of use of food plant habitats.</p> <p>Little Saskatchewan First Nation is concerned about degradation and loss of use of medicinal plant habitats.</p> <p>Little Saskatchewan First Nation is concerned about conversion of lands to more aquatic ecosystems, resulting in more bulrushes and aquatic plants and fewer plants preferred by wildlife such as moose;</p> <p>Little Saskatchewan First Nation is concerned about dispossession of farmlands on Dunsekikan Island and other areas.</p> <p>Little Saskatchewan First Nation is concerned about economic impacts due to reduced Seneca harvesting opportunities and declines in prices.</p> <p>Little Saskatchewan First Nation decreased opportunities for future generations to practice Aboriginal and treaty rights relation to farming, plants, and medicines.</p> <p>Little Saskatchewan First Nation is concerned that there are no mitigation and monitoring measures with respect to interactions between the Project and traditional plant harvesting.</p> <p><u>Recommendations made by Little Saskatchewan First Nation:</u></p> <ul style="list-style-type: none"> Little Saskatchewan First Nation recommended that they are provided the opportunity to be involved with the development of the EMPs. Little Saskatchewan First Nation recommend that Manitoba Infrastructure be more responsive to Little Saskatchewan First Nation's Project concerns. Little Saskatchewan First Nation recommends a Cultural Awareness, Recognition and Reconciliation Plan (for Project personnel) 	<p>within the LAA. Portions of Pineimuta Lake are within the LAA. Sugar Island is within the LAA. Bear Creek, and Fairford area, Steep Rock, Big Rock, Inlet Creek are within the LAA. Long Point, Basket Creek and Partridge Creek are in the RAA Gypsumville are outside of the RAA.</p>		<p>restoration of vegetation cover in disturbed areas.</p> <ul style="list-style-type: none"> The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Little Saskatchewan First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
May 31, 2022

Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<ul style="list-style-type: none"> Little Saskatchewan First Nation recommends Involvement of Interlake First Nations in Construction Monitoring Plan Little Saskatchewan First Nation recommend a revised vegetation assessment (especially for wetlands) <p><u>Sources:</u> Manitoba Infrastructure Indigenous Engagement Program Golder Associates 2018 LSFN 2020a LSFN 2021a Manitoba Infrastructure 2018b Olson et al. 2020b</p>				<p>Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Little Saskatchewan First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p><u>Existing Conditions:</u></p> <p>Little Saskatchewan First Nation reported that the west access road into the Mantagao Lake Wildlife Management Area cannot be used</p> <p>Little Saskatchewan First Nation identified several travel routes, including but not limited to, along the Dauphin River, along the Warpath River, Lake Winnipeg and shoreline, Lake Manitoba and shoreline, Lake St. Martin and shoreline, Fisher Bay shoreline.</p> <p>Little Saskatchewan First Nation reported the proximity to water is important to Little Saskatchewan First Nation people for cultural and transportation purposes.</p> <p>Little Saskatchewan First Nation reported their ability to practice these hunting and trapping activities in the preferred locations throughout Little Saskatchewan First Nation territory have been impacted by a suite of cumulative effects, including impacts from flooding events and fluctuating water levels as well as government regulations, private land designations, and other access issues.</p> <p>Little Saskatchewan First Nation reported that hunting and trapping values are further impacted by private landowners, as they are unable to hunt on private lands and the distinction between private and Crown lands is not always clear.</p> <p>Little Saskatchewan First Nation reported that ravel in the territory is a means of becoming familiar with the territory and relating to ancestors who have travelled the same routes in the past, contributing to sense of place.</p>	<p><u>Locations:</u> Mantagao Lake Wildlife Management Area is within the RAA. Lake St. Martin is in the PDA. Portions of Lake Winnipeg and Lake Manitoba are in the PDA. Dauphin River is within the LAA. Fisher Bay and the Warpath River are outside of the RAA</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>Manitoba Infrastructure acknowledges that the information about use of travel routes by Little Saskatchewan First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of travel routes harvesting by Little Saskatchewan First Nation to occur throughout the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the</p>

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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p><u>Issues and Concerns:</u></p> <p>Little Saskatchewan First Nation expressed concerns regarding Lake St. Martin Access Road Project including, the road's location, whether or not it will be gated, and potential for impacts to road maintenance.</p> <p>Little Saskatchewan First Nation expressed concerns regarding effects on access, including identified trails.</p> <p>Little Saskatchewan First Nation expressed concern regarding access limitations to preferred harvesting areas due to government regulations, such as designations of Crown and private land.</p> <p>Little Saskatchewan First Nation noted that members may go to specific areas repeatedly to pick particular berries and plants, participants; however, berry-picking also occurs as opportunities arise while traveling or while out on the land conducting other activities. These patterns of land use emphasize the interconnected nature of Little Saskatchewan First Nation members' cultural values, and the importance of having large intact environments where berry resources are available and can be picked and maintaining adequate access.</p> <p>Little Saskatchewan First Nation is concerned about impeded or lost access to territory even for Little Saskatchewan First Nation members remaining on reserve, due to altered terrestrial and aquatic transportation routes and other environmental impacts.</p> <p>Little Saskatchewan First Nation is concerned that the AMP "Hunting and Fishing Restrictions" during Project construction and operations has no reference to Indigenous Peoples. The AMP excludes consideration for how Little Saskatchewan First Nation access and use in the Project area can be protected and maintained during construction and operations.</p> <p>Little Saskatchewan First Nation is concerned that there are no mitigation and monitoring measures with respect to interactions between the Project and access for Indigenous groups to carry out traditional rights-based activities.</p> <p>Little Saskatchewan First Nation is concerned that the Project will deny access to hunting and berry picking areas.</p> <p>Little Saskatchewan First Nation is concerned that the narrows on Lake St. Martin will be a bottleneck and flood Lake St. Martin.</p> <p><u>Recommendations made by Little Saskatchewan First Nation:</u></p> <ul style="list-style-type: none"> Little Saskatchewan First Nation recommend that they are provided the opportunity to be involved with the development of the EMPs. 		<p>temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be</p>	<ul style="list-style-type: none"> Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Little Saskatchewan First Nation to discuss the Environmental Management Plans. A meetings was held with Little Saskatchewan First Nation on the following dates: October 7, 2020. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Little Saskatchewan First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities,</p>

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<ul style="list-style-type: none"> Little Saskatchewan First Nation recommend that Manitoba Infrastructure be more responsive to Little Saskatchewan First Nation's Project concerns. Little Saskatchewan First Nation recommends a Cultural Awareness, Recognition and Reconciliation Plan (for Project personnel) Little Saskatchewan First Nation recommend Involvement of Interlake First Nations in Construction Monitoring Plan Little Saskatchewan First Nation recommend a revised cultural heritage assessment <p><u>Sources:</u> LSFN 2021a Manitoba Infrastructure Indigenous Engagement Program Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.13 Manitoba Infrastructure 2019a Olson et al. 2020b</p>		able to continue, with alterations, during operations.		<p>including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Little Saskatchewan First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p><u>Existing Conditions:</u></p> <p>Little Saskatchewan First Nation identified several cultural and habitation sites, including but not limited to, the shorelines of Lake St. Martin, Lake Winnipeg and Lake St. Martin, Sturgeon Bay, Ashern, Dauphin River, Jumping Creek, Bear Creek, Partridge Creek, Inlet Creek and Gypsum Lake</p> <p>Little Saskatchewan First Nation reported the presence of an important cemetery on the reserve, and expressed a desire to have a dike installed to protect the cemetery in the event of flooding.</p> <p>Little Saskatchewan First Nation reported that burials in the community, which are important links to the past, have also been impacted by flooding.</p>	<p><u>Locations:</u> Lake St. Martin is in the PDA. The mouth of Partridge Creek is in the PDA. Portions of Lake Winnipeg and Lake Manitoba are in the PDA. Little Saskatchewan 48 Reserve and The Narrows 49 Reserve is within the LAA. The Dauphin River, Jumping Creek, Bear Creek, Sturgeon Bay and Ashern are in the LAA. Inlet Creek is in the RAA. Gypsum Lake is outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>Manitoba Infrastructure acknowledges that the information about use of habitation, cultural and spiritual sites and areas by Little Saskatchewan First Nation in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of habitation, cultural and spiritual sites and areas by Little Saskatchewan First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> The HRIA identified existing or potential sites. The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. The EPP identifies specific existing and potential sites and specific measures to protect them. The AMP controls access around the Project construction area. 	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
May 31, 2022

Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Little Saskatchewan First Nation reported that they have deep ancestral connections to the land, which has led to a strong sense of identity and attachment linked to the territory among Little Saskatchewan First Nation members.</p> <p>Little Saskatchewan First Nation reported the 2011 flood has made Little Saskatchewan First Nation's traditional land use, culture, and Aboriginal or treaty rights critically vulnerable to any change.</p> <p>Little Saskatchewan First Nation reported that there is a large, displaced population for Little Saskatchewan First Nation due to flooding issues in recent years.</p> <p><u>Issues and Concerns:</u></p> <p>Little Saskatchewan First Nation raised concerns regarding ongoing flooding in the region from control structures and increases in water levels on Lake Winnipeg that may cause the erosion of lake shoreline that diminishes the value of camping.</p> <p>Little Saskatchewan First Nation raised concerns about the effects of Project-related flooding on important sites, such as ceremonial sites and unmarked graves</p> <p>Little Saskatchewan First Nation reported concerns regarding unmarked graves within the LAA.</p> <p>Little Saskatchewan First Nation is concerned with impacts to sense of place and community due to limited or interrupted access to culturally important places.</p> <p>Little Saskatchewan First Nation is concerned that the Project has a high likelihood to pose adverse impacts to Little Saskatchewan's reserve lands that are used for economic, social, and cultural purposes including housing, the cemetery, hay fields, and recreational areas.</p> <p>Little Saskatchewan First Nation expressed concern that the Project will not protect Little Saskatchewan First Nation communities from flooding.</p> <p>Little Saskatchewan First Nation is concerned that the Project design will further fragment their traditional territory and continue to leave the community vulnerable to future flood management efforts.</p> <p><u>Recommendations made by Little Saskatchewan First Nation:</u></p> <ul style="list-style-type: none"> Little Saskatchewan First Nation recommends the installation of a dyke to protect the cemetery in the event of flooding. Little Saskatchewan First Nation recommends that they are provided the opportunity to be involved with the development of the EMPs. 		<p>that occur within the RAA may be harvested by Little Saskatchewan First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Apart from the two known cemeteries, no burials or unmarked graves have been identified or reported in the RAA. Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<ul style="list-style-type: none"> Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Further, the Environmental Protection Program for the Project will include a CHRPP. Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, effects on cultural or spiritual sites within the PDA are predicted to be long-term in duration, high in magnitude, continuous, irreversible, and disturbed. Timing is not applicable, as changes to cultural and spiritual sites or areas would occur irrespective of day or season.</p>	<p>routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Little Saskatchewan First Nation to discuss the Environmental Management Plans. A meeting was held with Little Saskatchewan First Nation on the following dates: October 7, 2020. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Little Saskatchewan First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and</p>

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<ul style="list-style-type: none"> • Little Saskatchewan First Nation recommends that Manitoba Infrastructure be more responsive to Little Saskatchewan First Nation's Project concerns. • Little Saskatchewan First Nation recommends a Cultural Awareness, Recognition and Reconciliation Plan (for Project personnel) • Little Saskatchewan First Nation recommends Involvement of Interlake First Nations in Construction Monitoring Plan <p><u>Sources:</u> Golder Associates 2018 LSFN 2020a LSFN 202b LSFN 2021a LSFN 2021b Olson et al. 2020b Firelight 2018</p>				<p>will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Little Saskatchewan First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>Loon Straits Northern Affairs Community <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p>Manitoba Infrastructure has obtained no information about Loon Straits Affairs Community hunting or trapping or traditionally harvested species in the RAA has been obtained through either the Indigenous consultation and engagement program or a review of publicly available literature.</p>	<p><u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> moose, mule deer, white-tailed deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, muskrat, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p> <p><u>Locations:</u> No specific hunting or trapping sites or locations used by Loon Straits Northern Affairs Community within the RAA were identified through the Indigenous Consultation and Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>In the absence of specific information about current use by Loon Straits Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping Loon Straits Northern Affairs Community occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Loon Straits Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups</p>

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		<p>LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>ROW and not extend beyond the PDA (Chapter 8, Section 8.2).</p> <ul style="list-style-type: none"> Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Loon Straits Northern Affairs Community were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce.</p>

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				<p>Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Loon Straits Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Aquatic Environment and Fishing				
<p><u>Issues and Concerns:</u></p> <p>Loon Straits Northern Affairs Community is concerned with water quality and quantity and effect on fish.</p> <p>Loon Straits Northern Affairs Community have expressed concern about foreign species entering into Lake Winnipeg.</p> <p><u>Sources:</u></p> <p>LSNAC 2021.</p> <p>Manitoba Infrastructure Indigenous Engagement Program</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye (pickereel).</p> <p><u>Locations:</u> Portions of Lake Winnipeg are in the PDA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive</p>

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		<p>unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>lower than the 50th percentile (see IAAC-41 and IAAC-43).</p> <ul style="list-style-type: none"> • Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. • Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted "in the dry" and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba 	<p>management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were Detailed mitigation and monitoring program review discussions have been incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Loon Straits Northern Affairs Community were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and</p>

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			<p>Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat.</p> <ul style="list-style-type: none"> Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to 	<p>will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE R, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about aquatic environment and fishing that Loon Straits Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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			<p>realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered.</p> <ul style="list-style-type: none"> Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	
Plants and Plant Harvesting				
<p>Manitoba Infrastructure has obtained no information about Loon Straits Northern Affairs Community plant harvesting or traditionally harvested plant species in the RAA through the Indigenous consultation and engagement program or a review of publicly available literature.</p>	<p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, weke, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>In the absence of specific information about current use by Loon Straits Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Loon Straits Northern Affairs Community to occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Loon Straits Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plants species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p>

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	<p>goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> No specific plant harvesting sites or locations used by Loon Straits Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>erected limiting access to authorized personnel.</p> <ul style="list-style-type: none"> The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). 	<p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Loon Straits Northern Affairs Community were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services</p>

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			<ul style="list-style-type: none"> The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Loon Straits Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p>Manitoba Infrastructure has obtained no information about Loon Straits Northern Affairs Community use of travel routes in the RAA has been obtained through either Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific travel routes within the RAA were identified by Loon Straits Northern Affairs Community through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by Loon Straits Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by Loon Straits Northern Affairs Community to occur within the RAA.</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. 	<p>The success of mitigation for travel routes will be monitored through the EMPs These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received</p>

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		<p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the</p>	<ul style="list-style-type: none"> • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. • As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed at specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered</p>	<p>on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were Detailed mitigation and monitoring program review discussions have been incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Loon Straits Northern Affairs Community were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of</p>

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		<p>LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>		<p>crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Loon Straits Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Habitation, Cultural and Spiritual Sites				
<p>Manitoba Infrastructure has obtained no information about Loon Straits Northern Affairs Community use of habitation, cultural and spiritual sites in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations used by Loon Straits Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about habitation, cultural and spiritual sites and areas identified by Loon Straits Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Loon Straits Northern Affairs Community to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Loon Straits Northern Affairs Community were provided to Manitoba Transportation and Infrastructure in April 2021.</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
May 31, 2022

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>		<p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about aquatic environment and habitation, cultural and spiritual sites that Loon Straits Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>				
<p>Manitogan Northern Affairs Community <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p>Manitoba Infrastructure has obtained no information about Manitogan Northern Affairs Community hunting or trapping or traditionally harvested species in the RAA through the Indigenous consultation and engagement program or a review of publicly available literature.</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> moose, mule deer, white-tailed deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, muskrat, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p> <p><u>Locations:</u> No specific hunting or trapping sites or locations used by Manitogan Northern Affairs Community within the RAA were identified through the Indigenous Consultation and Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>In the absence of specific information about current use by Manitogan Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping Manitogan Northern Affairs Community occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Manitogan Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. Safe passage will be provided at identified crossing locations As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated</p>

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		<p>wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>Project, so that areas and time periods of activity can be avoided.</p> <ul style="list-style-type: none"> As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>(Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>444As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Manigotagan Northern Affairs Community.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the</p>

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				<p>Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Manigotagan Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Aquatic Environment and Fishing\				
<p>Manitoba Infrastructure has obtained no information about Manigotagan Northern Affairs Community fishing or traditionally harvested fish species in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye (pickerel).</p> <p><u>Locations:</u> No specific aquatic environment and fishing locations used by Manigotagan Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or changes in the distribution and abundance of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>In the absence of specific information about current use by Manigotagan Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Manigotagan Northern Affairs Community to occur within the RAA and that species commonly understood to be caught by Indigenous peoples that occur within the RAA may be fished by Manigotagan Northern Affairs Community.</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury</p>

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		<p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. These species are known to be present only in Lake Winnipeg and the first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and</p>	<p>summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43).</p> <ul style="list-style-type: none"> • Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. • Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. 	<p>will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Manitogagan Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this</p>

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		<p>headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<ul style="list-style-type: none"> All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. The majority of Project channel excavation and construction will be conducted “in the dry” and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. 	<p>discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE R, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting</p>

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			<p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>and trapping that Manigotagan Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Plants and Plant Harvesting				
<p>Manitoba Infrastructure has obtained no Manigotagan Northern Affairs Community plant harvesting or traditionally harvested plant species in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>In the absence of specific information about current use by Manigotagan Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Manigotagan Northern Affairs Community to occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Manigotagan Northern Affairs Community.</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
	<p>primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> No specific plant harvesting sites or locations Manigotagan Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided.</p> <ul style="list-style-type: none"> As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least 	<p>Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7). As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Manigotagan Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba</p>

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			<p>persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Manigotagan Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
Travel Routes				
<p>Manitoba Infrastructure has obtained no information about Manigotagan Northern Affairs Community use of travel routes in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific travel routes used by Manigotagan Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by Manigotagan Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by Manigotagan Northern Affairs Community to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. • As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Manigotagan Northern Affairs Community to date.</p>

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		<p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered</p>	<p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition</p>

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				<p>to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Manigotagan Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p>Manitoba Infrastructure has obtained no information about Manigotagan Northern Affairs Community use of habitation, cultural and spiritual sites in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations used by Manigotagan Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about habitation, cultural and spiritual sites and areas identified by Manigotagan Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Manigotagan Northern Affairs Community to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also</p>

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		<p>in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<p>of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Manigotagan Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify</p>

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				<p>anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Manigotagan Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
<p>Manitoba Metis Federation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u></p> <p>Manitoba Metis Federation reported that hunting and trapping occurs in the vicinity of Lake Winnipeg and harvesting occurs around the Dauphin River floodplain.</p> <p>Manitoba Metis Federation stated that terrestrial and avian species, including furbearers and waterfowl, are relied upon for traditional and commercial purposes.</p> <p>Manitoba Metis Federation reported that it's common for Metis living in Winnipeg or in Southwestern Manitoba to go to the Interlake region to exercise their rights. The most geographically close to the Project does not always mean the most impacts for the Metis because of this. Manitoba Metis Federation citizens have family ties to this area. Who is closest is not always the most affected.</p> <p>Manitoba Metis Federation reported that for traditional harvesting and land use activities occur at Lake St. Martin, Lake Manitoba, and their tributaries.</p> <p>Manitoba Metis Federation reported that they participate in many harvesting activities, including hunting, trapping, and commercial harvesting activities such as guiding, and commercial trapping.</p>	<p><u>Species identified by Manitoba Metis Federation:</u> fox, snake, whippoorwill, beaver, muskrat, elk.</p> <p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> moose, mule deer, white-tailed deer, black bear, coyote, wolf, , river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p> <p><u>Locations:</u> Buffalo Creek, Lake St. Martin and portions of Lake Winnipeg and Lake Manitoba are within the PDA. The Dauphin River floodplain is in the PDA. Moosehorn, Ashern and Dog Lake and are in the LAA. The Nelson River, Sandy Point, Waterhen Lake, Playgreen Lake and Little</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about hunting and trapping by Manitoba Metis Federation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Manitoba Metis Federation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Manitoba Metis Federation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other land/resource use from communities, advisory</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Manitoba Metis Federation reported trapping activities within the Regional Assessment Area and beyond. Specifically, these locations include the areas throughout Lake Manitoba, Lake Winnipeg, and up through Waterhen Lake, Playgreen Lake and Little Playgreen Lake.</p> <p>Manitoba Metis Federation reported that trapping occurs around Lake St. Martin and Lake Manitoba.</p> <p>Manitoba Metis Federation reported hunting along the shores of Lake St. Martin and Lake Manitoba, specifically on the eastern side of Lake Manitoba and Dog Lake along Highway 6 near to Camper, Ashern, and Moosehorn. Participants also mapped many hunting sites along the Nelson River south of Norway House.</p> <p>Manitoba Metis Federation reported reptile habitats along the south and western shores of Lake St. Martin.</p> <p>Manitoba Metis Federation reported bird and mammal habitats along the southern shores of Lake Manitoba.</p> <p>Manitoba Metis Federation reported there are personal hunting and trapping areas throughout the Lake Manitoba and Lake St. Martin region, demonstrating that Métis Nation citizens exercise their rights within the Study Area including hunting, trapping, snaring.</p> <p>Manitoba Metis Federation reported that the wetland areas around Lake Manitoba are used for snaring – Captain’s Point, Sandy Point.</p> <p>Manitoba Metis Federation reported that commercial hunting and trapping occurs within the Lake Manitoba, Lake St. Martin, and Lake Winnipeg regions.</p> <p>Manitoba Metis Federation reported that changes to the environment, such as water levels, have also greatly affected Metis trappers as species like beaver and muskrat depend on having enough water in their habitat to survive.</p> <p>Manitoba Metis Federation reported that control of water levels through dams has had lasting negative impacts on their ability to harvest and otherwise use the lands</p> <p>Manitoba Metis Federation has highlighted the impacts of logging on the land and waters they use, contributing to the loss of habitat for wildlife.</p> <p>Manitoba Metis Federation reported that results of previously conducted Land Use and Occupancy Studies show extensive use and occupancy by the Manitoba Metis across the entire Project area.</p> <p><u>Issues and Concerns:</u></p> <p>Manitoba Metis Federation stated that flooding can reduce land use activities and harvesting opportunities.</p>	<p>Playgreen Lake are outside of the RAA.</p>	<p>harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species (EIS Volume 2 Section 8.3.6.2). The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Effects from the LSMOC will primarily to native forest and wetlands. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA. The area of wetland in the LAA was revised following completion of the EIS (WSP 2020) and this revision altered the area of uplands, wetlands and open water in the LAA and PDA’s. The LMOC and PR239 PDA now intersect 355.0 ha of wetland, and the LSMOC PDA 768.6. ha of wetland. Although the wetland area intersected by the Project PDA’s has increased (1,015.0 ha to 1,123.6 ha), the percentage intersected has decreased because the area of wetland in the LAA has also increased (15,153.5 ha to 15,487.1 ha).</p>	<ul style="list-style-type: none"> Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be ‘softened’ as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p>Design updates, including armouring of the channels, are addressed primarily in IAAC-38</p> <p>Residual Effects after Mitigation: With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by</p>	<p>committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Manitoba Metis Federation to discuss the Environmental Management Plans. As of mid-March, 2022, Manitoba Metis Federation has not confirmed a meeting date. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Manitoba Metis Federation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p>

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<p>Manitoba Metis Federation expressed concern that flooding of Buffalo Creek has caused vegetation to decrease along the banks, which may be habitat for terrestrial and avian species.</p> <p>Manitoba Metis Federation is concerned about loss of land and access from flooding and erosion, fewer resources to harvest due to changing water levels and the quality and safety of harvested food.</p> <p>Manitoba Metis Federation is concerned about the potential risks of increased mercury methylation and reduced flows and water volumes in the wetland system. This will likely affect hunters and trappers using the area and potentially poses a risk in increased exposure to methyl mercury.</p> <p>Manitoba Metis Foundation is concerned that given the potential of the Project to affect the lands and waters throughout which Metis Nation citizens hunt and trap, the Project may also affect their ability to exercise these Section 35 rights.</p> <p>Manitoba Metis Foundation is concerned that if wildlife habitat or migration routes are disrupted by activities related to the Project, animal populations may relocate or change.</p> <p>Manitoba Metis Foundation is concerned about the potential impacts to other wildlife including birds, mammals and small fur-bearers that could result from changing their habitat and migration routes.</p> <p>Manitoba Metis Foundation is concerned that construction activities could have negative impacts on the elk population within the Project area.</p> <p>Manitoba Metis Foundation is concerned that migratory routes could be fragmented by the proposed outlet channels and isolate the migratory wildlife.</p> <p>Manitoba Metis Foundation is concerned that the clearing of the proposed outlet channels themselves could also lead to the reduced availability of wildlife habitat.</p> <p>Manitoba Metis Federation is concerned that LSMOC presents a significant physical barrier to accessing hunting lands on the south side of the channel, and also potentially presents a barrier to wildlife movement to either side of the channel. This has significant potential impacts on usage of the area.</p> <p>The Manitoba Metis Federation is concerned that the stone size on portions of the side slopes of the channel could be as large as 100 cm in diameter and may present a barrier to wildlife movement, and the movement of resource harvesters.</p> <p><u>Recommendations made by Manitoba Metis Federation:</u></p> <ul style="list-style-type: none"> The Manitoba Metis Federation recommends that they be given the opportunity to ground-truth the area to provide thorough background knowledge on the game species they 			<p>Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means to facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project. as outlined in the IC SER (see Attachment 3 - Engagement and Consultation Updates), Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Manitoba Metis Federation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>utilize in the area and how access for Manitoba Metis Community hunters will be reduced and how wildlife behaviours and movements would be affected by the channel.</p> <ul style="list-style-type: none"> The Manitoba Metis Federation recommends that they be given the opportunity to comment on and contribute to the detailed groundwater monitoring plan and participate in groundwater and other monitoring. The Manitoba Metis Federation recommends that the risks that volume and temporal changes in flow pose to wildlife in the Project area be addressed, especially during critical life stages. The Manitoba Metis Federation recommends that Manitoba Transportation and Infrastructure provide an opportunity for the Manitoba Metis Federation to ground truth the area to provide thorough background knowledge on the game species they utilize in the area; describe and characterize how access for Manitoba Métis hunters may be affected; and how wildlife behaviours and movements would be affected by the channel. <p>The Manitoba Metis Federation has directed Manitoba Infrastructure not to cite secondary sources in regulatory reporting for this Project.</p> <p><u>Sources:</u> Manitoba Infrastructure Indigenous Engagement Program MMF 2018 MMF 2019 MMF 2020 MMF 2021a MMF 2021b MMF 2021c</p>				
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u> Manitoba Metis Federation reported that fishing occurs in Lake Winnipeg and harvesting occurs around the Dauphin River floodplain. Manitoba Metis Federation indicated changes in fish distribution as a result of the Project would require Métis citizens to rely on potentially affected waterbodies and travel further to find suitable fish harvesting grounds.</p>	<p><u>Species identified by Manitoba Metis Federation:</u> yellow perch, northern pike, baitfish, mooneye, goldeye, rainbow smelt, cisco, drum. <u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish,</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use. Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by Manitoba Metis Federation presented in this table should not be considered comprehensive. Manitoba Infrastructure has</p>	<p>Effects regarding sediments, debris and water quality are considered in the SWMP, SMP and Debris Management Plan. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Sediments will be monitored, and visual inspections will be carried out as part of the SWMP and SMP and contingency mitigation measures such as silt fencing and materials to minimize bank erosion will be used, where necessary. 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project. For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of</p>

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<p>Manitoba Metis Federation reported that impacts to water levels have affected commercial and subsistence fishing, including the decline in availability of fish.</p> <p>Manitoba Metis Federation reported flooding in the Lake St. Martin region has been an ongoing challenge for Manitoba Metis Federation land-users.</p> <p>Manitoba Metis Federation reported Dauphin River is known to be used for fishing activities.</p> <p>Manitoba Metis Federation reported Lake Manitoba has known fishing areas.</p> <p>Manitoba Metis Federation reported Lake St. Martin has fish spawning areas.</p> <p>Manitoba Metis Federation reported that Lake Pineimuta provides ideal spawning and nursery habitat.</p> <p>Manitoba Metis Federation reported Lake St. Martin has amphibian/ reptile habitat near to its shores</p> <p>Manitoba Metis Federation reported that personal harvesting areas throughout the Lake Manitoba and Lake St. Martin region, demonstrating that Métis Nation citizens exercise their rights, including fishing, within the Study Area.</p> <p>Manitoba Metis Federation reported that there are fish in close proximity to the proposed outlet channels to the north and west of Lake St. Martin, and in Lake Manitoba at what would be the mouth of the proposed outlet channel.</p> <p>Manitoba Metis Federation reported that commercial fishing occurs within the Lake Manitoba.</p> <p>Manitoba Metis Federation reported that commercial fishing occurs near the lake St. Martin emergency channel.</p> <p>Manitoba Metis Federation reported that prime habitat for fish spawning is at the mouth of the Dauphin River.</p> <p>Manitoba Metis Federation reported increasing dirt and debris affecting fish and fishing practices.</p> <p>Manitoba Metis Federation reported water quality issues in more northern areas due to hydro developments have affected fishing in those areas, bringing more harvesters down to the Winnipeg River area.</p> <p>Manitoba Metis Federation reported flooding has affected fish populations in the waterways, and harvesters' ability to use areas where the flooding occurred.</p> <p>Manitoba Metis Federation reported that control of water levels through dams has had lasting negative impacts on their ability to harvest and otherwise use the waters.</p> <p>Manitoba Metis Federation has highlighted the impacts of logging on the land and waters they use, contributing to an</p>	<p>burbot, trout, perch, sauger, walleye (pickereel).</p> <p><u>Locations:</u> Lake St. Martin, Buffalo Creek, Sturgeon Bay, and portions of Lake Winnipeg are within the PDA. Dauphin River is within the LAA. The Dauphin River floodplain is within the PDA. Lake Pineimuta is in the LAA. Nelson River, Playgreen Lake, Little Playgreen Lake, Belanger River and Norway House are outside of the RAA.</p>	<p>conservatively assumed that there is the potential for use of the aquatic environment and fishing by Manitoba Metis Federation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Manitoba Metis Federation.</p> <p>During a flood event, water flows across the land and can pick up sediments that contain chemicals such as fertilizers, pesticides and other contaminants. Under current conditions, this material flows through the Fairford River and the Dauphin River during floods. The Project will reduce the amount of overland flooding and is therefore expected to reduce the amount of contamination entering lakes.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>While there may be some changes to fish movements and habitat use due to the relocation of flows through the channels, this will be monitored and is not currently expected to affect regional biodiversity or sustainability of regional fish populations.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in</p>	<ul style="list-style-type: none"> The banks of the channel will be revegetated to reduce erosion. If required, at the start of operation, the water control structure gates can be gradually opened to control sediment levels, based on results of sediment monitoring. There will likely be increases in sediment concentrations at the end of the channel, but they will be managed to address water quality concerns, through monitoring and flow adjustments. <p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing 	<p>commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Manitoba Metis Federation to discuss the Environmental Management Plans. As of mid-March, 2022, Manitoba Metis Federation has not confirmed a meeting date. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement</p>

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<p>increasing amount of runoff into the surrounding waterways carrying pollutants and debris.</p> <p>Manitoba Metis Federation reported disrupted natural filtration system which has contributed to the presence of recent algal blooms.</p> <p>Manitoba Metis Federation reported a water control structure on the Fairford River, and how this has greatly impacted fish and their ability to move between bodies of water.</p> <p>Manitoba Metis Federation reported Metis harvesters engage in commercial fishing within the RAA. Specifically, these locations include the areas throughout Lake Manitoba, Lake Winnipeg, and up through Waterhen Lake, Playgreen Lake and Little Playgreen Lake.</p> <p>Manitoba Metis Federation reported that Metis harvesters fish throughout the entire Project area. Lake Manitoba to Lake St. Martin, through the Dauphin River and into Lake Winnipeg has been identified as being used by Metis harvesters for fishing. They note that Lake Winnipeg is also an important fishing area, and many harvesters have discussed changes that they have seen in fish populations and water flow, quality and levels.</p> <p>Manitoba Metis Federation reported that fish spawning areas in Lake St. Martin and Pineimuta Lake.</p> <p>Manitoba Metis Federation reported that changes to the water quality in Lake Winnipeg after an emergency drainage channel that had been dug between Lake St. Martin and Lake Winnipeg causing increase in debris of mud and roots in their fishing nets.</p> <p>Manitoba Metis Federation reported that along the eastern shoreline of Lake Winnipeg and into the Nelson River, Playgreen Lake and Little Playgreen Lake they have noticed changes to shorelines, fish populations, and water quality.</p> <p>Manitoba Metis Federation reported that increased erosion on the shorelines of Lake Winnipeg between the Belanger River and the mouth of the Nelson River has caused impacts on fish populations; they have observed algal blooms in this same area.</p> <p>Manitoba Metis Federation reported that their fishing nets fill with debris along the Nelson River between Lake Winnipeg and Norway House; changing fish populations and water levels believed to be caused by hydroelectric development.</p> <p>Manitoba Metis Federation reported that algal blooms within Lake Winnipeg have significantly affected harvesting activities, particularly when nets are filled with algae.</p> <p>Manitoba Metis Federation reported that wetlands, riparian areas, and seasonally flooded areas provide important habitat for a variety of freshwater fishes. Many species spawn on</p>		<p>downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>connections between waterbodies will remain post-Project.</p> <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • Machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted "in the dry" and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. • Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. 	<p>portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Manitoba Metis Federation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready</p>

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<p>flooded vegetation in spring (e.g. northern pike and yellow perch) and rely on wetlands and flooded areas for rearing</p> <p>Manitoba Metis Federation reported changes to water quality and flow, which has impacted fish populations and health, making it difficult to harvest fish.</p> <p>Manitoba Metis Federation reported changes to the water quality in Lake Winnipeg after an emergency drainage channel that had been dug between Lake St. Martin and Lake Winnipeg. Specifically, noting an increase in debris of mud and roots in fishing nets. Also noting that because of increased water levels in Lake St. Martin, they could no longer access the boat launch.</p> <p>Manitoba Metis Federation reported an increase in erosion on the shorelines of Lake Winnipeg between the Belanger River and the mouth of the Nelson River which they said has caused impacts to fish populations in the area.</p> <p>Manitoba Metis Federation reported that Lake Winnipeg is an important fishing area, and many harvesters have discussed changes that they have seen in fish populations and water flow, quality and levels.</p> <p>Manitoba Metis Federation have observed increased harvesting by non-Indigenous harvesters which puts an added pressure on the amount of time and money Métis harvesters spend on harvesting activities.</p> <p><u>Issues and Concerns:</u></p> <p>Manitoba Metis Federation expressed concerns regarding surface water. Manitoba Metis Federation have observed a decline in water quality in Buffalo Creek, Dauphin River, and Sturgeon Bay.</p> <p>Manitoba Metis Federation expressed concerns that operation of the Project may result in a decrease in biodiversity or a change in distribution of fish species downstream for up to a year.</p> <p>Manitoba Metis Federation stated that flooding can reduce land use activities and harvesting opportunities.</p> <p>Manitoba Metis Federation is concerned about environmental impacts to Metis harvesting from erosion, water levels and flooding.</p> <p>Manitoba Metis Federation reported that water-level fluctuations have affected gathering of water, with water wells more difficult to locate.</p> <p>Manitoba Metis Federation is concerned about soil stockpiles causing increased sediment loading into the LMOC and LSMOC and the downstream environments.</p> <p>Manitoba Metis Federation is concerned that soils exposed through the construction of the LMOC channel will likely result</p>			<ul style="list-style-type: none"> Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p>Design updates, including armouring of the channels, are addressed in IAAC-38</p>	<p>workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Manitoba Metis Federation may bring forward and incorporate into regulatory reporting and Project planning as appropriate</p>

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<p>in elevated levels of nitrogen and phosphorous in the downstream environment, especially shortly after construction.</p> <p>Manitoba Metis Federation is concerned about any changes to fish quality or population would affect subsistence harvesting by Metis harvesters, and could affect personal economies and social networks.</p> <p>Manitoba Metis Federation is concerned the Project's impact on the waters throughout which Métis Nation citizens fish the Project may also affect their ability to exercise their Section 35 rights.</p> <p>Manitoba Metis Federation is concerned about the stranding of small-bodied baitfish and benthic invertebrate species.</p> <p>Manitoba Metis Federation is concerned about impacts to commercial fishing from rising and falling water levels in Lake Winnipeg.</p> <p>Manitoba Metis Federation is concerned about increased harvesting in the lake by non-Indigenous harvesters.</p> <p>Manitoba Metis Federation is concerned about an increase in mercury methylation in affected wetlands as a result of a change or increase in the wetting and drying cycle. Mercury methylation is a significant concern for the Manitoba Metis Federation, who use the land and consume fish and wildlife that bioaccumulate methylmercury.</p> <p>Manitoba Metis Federation is concerned that construction of the channel will expose a large area to the potential of erosion. This could significantly affect water quality through increased total suspended solids, nutrients (phosphorous, nitrogen and ammonia) and turbidity in Lake St Martin and Lake Winnipeg, causing negative effects on fishery in downstream lakes.</p> <p>Manitoba Metis Federation is concerned about loss of property, reduced land use activities and harvesting opportunities.</p> <p>Manitoba Metis Federation is concerned about fish avoidance in the area and may result in fish mortality at the outlet.</p> <p>Manitoba Metis Federation is concerned that the first flush of the system will result in considerable impact to the downstream receiving environment due to increased loadings from the plug, substrate and the re-suspension of debris which has collected within the channel during non-flowing months, depositing it into the downstream environment.</p> <p>Manitoba Metis Federation is concerned that the timing of the water releases may considerably alter the natural flow variability of the downstream systems, which causes stress to aquatic species.</p> <p>Manitoba Metis Federation is concerned that high flows in the receiving waters may prevent fish from utilizing long stretches of the creek that are affected for long periods of time.</p>			<p>As described in the AMP, signage indicating access restrictions due to safety concerns will be prominently displayed and a security gate will be installed on the access road. The LMOC/LSMOC will be a critical component of provincial flood mitigation infrastructure and will also be registered as a provincial waterway. Consequently, recreational use, including fishing, hunting, snowmobiling and boating of any component of the outlet channel infrastructure will be prohibited through the life of the Project.</p> <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	

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<p>Manitoba Metis Federation is concerned about reduced biodiversity, requiring Metis citizens that rely on these water bodies to travel further to find suitable fish harvesting grounds.</p> <p>Manitoba Metis Federation is concerned about the temporary nature of the operation of the channels prevents the system from becoming suitable fish habitat or habitat for other aquatic species.</p> <p>Manitoba Metis Federation is concerned that the channels may introduce invasive species faster and further than typical migration patterns. Zebra mussels are of particular concern.</p> <p>Manitoba Metis Federation is concerned that during operation, it is possible that fish may enter into the outlet channels and become trapped. This is especially problematic for fall spawning fish, such as lake whitefish, that may enter the channels for spawning. Fish eggs could also become trapped.</p> <p>Manitoba Metis Federation is concerned about effects of sedimentation and erosion on aquatic habitat at the downstream end of the channel (Lake Winnipeg and Sturgeon Bay).</p> <p>Manitoba Metis Federation is concerned about impacts to benthic invertebrate communities and changing nutrient and sediment levels.</p> <p>Manitoba Metis Federation is concerned that fish that are attracted into the LSMOC during operation may become stranded once flows are restricted in the fall/winter.</p> <p>Manitoba Metis Federation is concerned that channel may act as an “ecological trap” whereby aquatic organisms are drawn into the area during periods when conditions are suitable but then become trapped.</p> <p>Manitoba Metis Federation is concerned that channels may act as corridors that facilitate the spread of AIS, such as common carp/Prussian carp which are adapted to the poor habitat conditions.</p> <p>Manitoba Metis Federation is concerned that habitat loss will include nursery and spawning habitat, which are important for the overall productivity within the LAA.</p> <p>Manitoba Metis Federation is concerned that the nighttime safety lights may attract fishes, causing negative impacts such as reduced feeding success or higher predation.</p> <p>Manitoba Metis Federation is concerned about the proposed outlet channels affecting these sensitive fish spawning habitats.</p> <p>Manitoba Metis Federation is concerned about spread of zebra mussels across water bodies, a threat that could increase with the proposed permanent outlet channels.</p>				

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<p>Manitoba Metis Federation is concerned with the impacts that changing water levels may have to spawning.</p> <p>Manitoba Metis Federation is concerned with changes to shorelines and spawning areas, and member's continued ability to commercial fish.</p> <p>Manitoba Metis Federation is concerned about changing water levels and the impact this may have on the nutrients that are released into the lake.</p> <p>Manitoba Metis Federation expressed concerns related to fish passage and the ability of species to move between bodies of water.</p> <p>Manitoba Metis Federation is concerned about the future use of the Project site by Manitoba Hydro to control water levels for the purposes of supporting their hydro-electricity projects.</p> <p>Manitoba Metis Federation is concerned about the safety of the ice in the wintertime if there were changes to the ice from the water management. It needs to be safe for both animals and humans to cross without the risk of breaking through the ice.</p> <p>Manitoba Metis Federation is concerned about the exposure of a large area to erosion. This could significantly affect water quality through increased total suspended solids, nutrients (phosphorous, nitrogen and ammonia) and turbidity in Lake St Martin and Lake Winnipeg.</p> <p>Manitoba Metis Federation is concerned about a negative effect on the fisheries in downstream lakes.</p> <p>Manitoba Metis Federation is concerned about the lack of any estimates of past, present, or future fish production under historical, current, and projected Project conditions, respectively.</p> <p>The Manitoba Metis Federation has directed Manitoba Infrastructure not to cite secondary sources in regulatory reporting for this Project.</p> <p>The Manitoba Metis Federation are concerned about impacts to commercial fishing from rising and falling water levels in Lake Winnipeg.</p> <p>The Manitoba Metis Federation are concerned about algal blooms within Lake Winnipeg that have significantly impacted harvesting activities, particularly when nets are filled with algae.</p> <p>The Manitoba Metis Federation is concerned that the Proponent has not followed the Manitoba Metis Federation's recommendation to include natural channel design principles in the design of the LMOC or LSMOC. To reduce erosion, the Proponent has updated the channel design to include armouring in the LSMOC. However, the armouring makes the channel "even less suitable for native species and more suitable for invasive species.</p>				

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<p>The Manitoba Metis Federation is concerned that the Proponent has not considered direct or indirect effects of decreasing biodiversity as a result in temporal changes in flow, nor how this will affect the Manitoba Métis. The Manitoba Metis Federation is concerned that the Proponent has not adequately addressed the fish stranding issue. Fish that enter the channels during operation may become stranded when flows are low. These stranded fish may then be exposed to oxygen depleted waters in the channels, potentially causing fish kills. The Proponent has done a poor job of addressing the concerns raised by the Manitoba Metis Federation about the risks of fish stranding in the channels and has not addressed the impacts fish stranding will have on the rights, claims and interests of the Manitoba Metis Federation.</p> <p>The Manitoba Metis Federation is concerned that Manitoba Transportation and Infrastructure has not verified that monitoring of invasive species will be a part of the Aquatic Environment Monitoring Plan, Vegetation Monitoring Plan or Wildlife Monitoring Plan. Manitoba Transportation and Infrastructure must give the Manitoba Metis Federation an opportunity to review any invasive species monitoring plans prior to the commencement of construction.</p> <p>The Manitoba Metis Federation is concerned that overall, the design for the study on effects to lake whitefish egg incubation lack the necessary detail to confirm its rigor and likelihood of being able to determine whether operation of the LMOC affects lake whitefish reproductive success within Birch Bay. In addition, the Proponent has not identified any measurable parameters which would be able to evaluate potential changes to spawning behaviour and success.</p> <p>The Manitoba Metis Federation is concerned that the Proponent has stated that there is expected to be no measurable impact on commercial, recreational, or aboriginal fisheries. However, the Proponent has not adequately assessed the productivity of fisheries and is thus unable to confidently make that claim. The Manitoba Metis Federation recommends that a robust monitoring program be established for evaluating the potential impacts to productivity. If impacts are observed, compensation must be provided.</p> <p>The Manitoba Metis Federation is concerned that potential effects of the flow modification on fish during critical life stages (e.g., spawning) are not adequately addressed.</p> <p>The Manitoba Metis Federation is concerned that the Proponent's approach to the issue of mercury methylation is unacceptable and does not protect the health of Manitoba Métis harvesters who consume fish in the Project area.</p> <p>The Manitoba Metis Federation is concerned that the groundwater monitoring plan does not include total or methyl mercury in the list of groundwater quality parameters to be monitored. This is unacceptable given that the bioaccumulation</p>				

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<p>of methylmercury in fish is a serious concern for the Manitoba Métis, who both consume, and in some cases sell, fish caught in the project area.</p> <p>The Manitoba Metis Federation is concerned that even short-term sedimentation in spawning beds can lead to reproductive failure if it occurs during the spawning period and this is a major concern for Manitoba Métis citizens that rely on these water bodies as fishing grounds for personal and commercial fishing.</p> <p>The Manitoba Metis Federation is concerned that the report does not address the recommendations of the Manitoba Metis Federation to consider using natural channel design to mitigate the potential impact on local fish populations. As it stands the channel design provides inadequate habitat to fish or other wildlife and minimizes ecological potential at it is related to oxygenation of water, sediment stability, food sources for forage fish, habitat cover for forage fish, spawning, rearing, and hunting habitat for large fish species etc.</p> <p>The Manitoba Metis Federation is concerned that the Proponent has not included aquatic invasive species within the Biosecurity Management Plan or Emergency Response Plan.</p> <p>The Manitoba Metis Federation is concerned that Manitoba Transportation and Infrastructure has not provided any more information on the fish salvage efforts and measures to prevent the spread of aquatic invasive species during salvage operations.</p> <p>The Manitoba Metis Federation is concerned that the Proponent has not elaborated on the potential impacts of noise and vibrations on fish and fish habitat</p> <p>The Manitoba Metis Federation is concerned with impacts that changes to the acoustic environment may have on fish and fish habitat.</p> <p>The Manitoba Metis Federation is concerned that the Proponent has not elaborated on the potential impacts of night-time lighting on fish and fish habitat during construction, noting that these night-time lights may attract fish, causing negative impacts such as reduced feeding success or higher predation.</p> <p>The Manitoba Metis Federation is concerned that Manitoba Transportation and Infrastructure has not increased the geographic scope of the LAA to include all of Lake Manitoba; impacts may be experienced throughout Lake Manitoba due to changes in water levels, fish movement, and nutrient inputs.</p> <p>The Manitoba Metis Federation is concerned that Manitoba Transportation and Infrastructure has not provided any further information regarding fish and fish habitat in Pineimuta Lake.</p> <p>The Manitoba Metis Federation is concerned that the Proponent has not provided a more detailed discussion of commercial and recreational fisheries data, including an</p>				

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<p>evaluation of the relationship between water levels and productivity.</p> <p>The Manitoba Metis Federation is concerned about loss of fish habitat due to sedimentation.</p> <p>The Manitoba Metis Federation is concerned about reduced area in all waterbodies of naturally flooded areas,</p> <p>The Manitoba Metis Federation is concerned about the lack of high-quality habitat in channels for native fishes,</p> <p>The Manitoba Metis Federation is concerned about changes in local shoreline geomorphology,</p> <p>The Manitoba Metis Federation is concerned about the blocking of migratory fish species during and after construction,</p> <p>The Manitoba Metis Federation is concerned about the introduction of aquatic invasive species (during and after construction).</p> <p>The Manitoba Metis Federation is concerned about the change in acoustic and light environment in the aquatic system.</p> <p>The Manitoba Metis Federation is concerned about the reduction of area in all waterbodies of naturally flooded areas (spawning, nursery, foraging habitat): Although Manitoba Transportation and Infrastructure addresses issues related to water levels in several areas primarily as they relate to flooding or shoreline stability, it does not directly address the concern of reduced areas of fish habitat, which would negatively impact fish production.</p> <p>The Manitoba Metis Federation is concerned that lack of high-quality habitat in channels for native fishes; channels have the potential to act as ecological traps.</p> <p>The Manitoba Metis Federation is concerned about changes in tributaries' natural channel geomorphology (rivers, creeks, and streams). The Manitoba Metis Federation states that only two naturally fluvial systems were discussed, Fairford River and Dauphin River. No analysis of smaller fluvial systems was undertaken. Systems that will be affected by the proposed works beyond the Fairford and the Dauphin include Bear Creek, Birch Creek and Headwater Lakes, Buffalo Creek and associated headwaters, Moosehorn Creek and Lake, Rendalls Creek, Watchorn Creek, and Waterhen River.</p> <p>Recommendations made by Manitoba Metis Federation:</p> <ul style="list-style-type: none"> Manitoba Metis Federation recommends that Manitoba Infrastructure work with Metis citizen scientists and harvesters, including commercial fishers, to collect baseline data surrounding the existing conditions of Lake Manitoba, Lake St. Martin, and Lake Winnipeg. 				

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<ul style="list-style-type: none"> • Manitoba Metis Federation recommends the sharing of information on the modelling of the water balance in Lake Winnipeg and demonstrate that climate change scenarios have been included in the model. • Manitoba Metis Federation recommends a detailed hydrological study on the Buffalo Creek Watershed including Big Buffalo and Little Buffalo lakes, to better understand the impacts the Project will have on this watershed. • Manitoba Metis Federation recommends that the Proponent should commit to conducting adequately detailed sediment transport modeling and eco-hydraulic assessments. • The Manitoba Metis Federation requests that the Proponent develop adequate mitigation measures to protect important fish habitat in the channel outlets in consultation with the Manitoba Metis Federation. • Manitoba Metis Federation has stated that fish are culturally and commercially important to the Manitoba Métis. Therefore, the Manitoba Metis Federation requests that the Proponent describe additional mitigation and monitoring to ensure that stranding impacts are avoided. • Manitoba Metis Federation requests that the Proponent must provide additional rationale, including sediment transport modelling, to support the claim that long term erosion and sedimentation will not impact fish habitat within Lake Winnipeg and Sturgeon Bay. • The Manitoba Metis Federation requests that the Proponent commit to long-term benthic invertebrate studies in order to adequately monitor the long-term changes in nutrients and benthic environments as an important indicator or prey availability for resident fish. • The Manitoba Metis Federation requests that the Proponent provide opportunities for the Manitoba Métis to participate in methylmercury monitoring of water, sediment, fish and game in the Project Regional Assessment Area. • The Manitoba Metis Federation requests that the Proponent must develop adequate mitigation measures to protect important fish habitat in the channel outlets in consultation with the Manitoba Metis Federation. • The Manitoba Metis Federation recommends that the Proponent engages in meaningful collaboration and consultation with the Manitoba Metis Federation to adequately avoid, mitigate, and/or compensate for the projected impacts. 				

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<ul style="list-style-type: none"> The Manitoba Metis Federation requests that the Proponent execute baseline aquatic habitat assessment with fish population and productivity assessments solidified with associated control sites in a multi-year standardized program to evaluate the Project impacts with robust and scientifically backed data to inform the proposed "adaptive management" strategies in mitigation and compensation plans necessary for the DFO authorizations in the Fisheries Act for HADD. The Manitoba Metis Federation requests that Manitoba Transportation and Infrastructure provide quantitative estimates of harmful alteration, degradation, or destruction of fish habitat (HADD) for all affected waterbodies in conjunction with habitat maps that include substrate, bathymetry, and vegetation by season to distinguish loss of spawning and nursery habitats from foraging and overwintering habitat. The Manitoba Metis Federation requests that the Proponent utilize modern restoration techniques and practices (such as including principles of natural channel design) into the design of the LSMOC and LMOC to improve habitat quality and reduce impacts on local fish populations. The Manitoba Metis Federation requests that Manitoba Transportation and Infrastructure provide the Manitoba Metis Federation with quantitative estimates of HADD informed by the baseline data collection for meaningful consultation and collaboration with the Manitoba Metis Federation and DFO requested in Comment 13. This will inform the creation of an acceptable fish habitat compensation or offsetting plan for the project to obtain an Authorization for impacts to fish and fish habitat. The Manitoba Metis Federation requests that The Manitoba Metis Federation requires that the proponent execute baseline aquatic habitat assessment with clear fish population and productivity assessment methodology and design (including associated control sites) in a multi-year standardized program. This will better allow the reliable and accurate detection of changes associated with Project impacts or benefits. The Manitoba Metis Federation requests that the Proponent must commit to including aquatic invasive species within the Emergency Response Plan to ensure that, should aquatic invasive species be found during construction, that effective means are used to control and eliminate the spread of invasive species in order to prevent impacts to Manitoba Métis rights, claims, and interests. The Manitoba Metis Federation requests that the Manitoba Metis Federation expects this information to be included in the Biosecurity Management Plan (see MMF-2020-17). If invasive fish species are caught during fish salvage efforts, 				

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<p>the Manitoba Metis Federation expects these to be destroyed and deposited at least 30 metres upgradient of the high-water mark.</p> <ul style="list-style-type: none"> The Manitoba Metis Federation requests that the Proponent provide further details on the potential impacts of noise and vibration resulting from construction activities on fish and fish habitat and provide details of related mitigation measures. The Manitoba Metis Federation requests that the Proponent to commit to adhering to the DFO guidelines on the use of explosives near fish bearing waters (DFO, 1998). If blasting is required, the Manitoba Metis Federation also requires that Manitoba Transportation and Infrastructure achieve thresholds for instantaneous pressure change and peak particle velocity of 50 kPa and 13 millimeters/second, respectively. The Manitoba Metis Federation requests that the Proponent must provide further details on the potential impacts of night-time lighting on fish and fish habitat, and provide details of related mitigation measures (e.g., strategic alignment of lighting). The Manitoba Metis Federation requests that Manitoba Transportation and Infrastructure update the information provided to include a discussion on how sedimentation may impact fishes (e.g., behavioural changes, reduced feeding, abrasion of gills, increased vulnerability to toxins, etc.) and fish habitat (substrate alterations, smothering of benthic invertebrates, changes in aquatic vegetation communities, etc.). <p><u>Sources:</u> Manitoba Infrastructure Indigenous Engagement Program MMF 2018 MMF 2019 MMF 2020 MMF 2021a MMF 2021b MMF 2021c Mandrak, N.E, Smith, I.D. 2021</p>				

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
Plants and Plant Harvesting				
<p><u>Existing Conditions:</u></p> <p>Manitoba Metis Federation reported that plant gathering occurs in the vicinity of Lake Winnipeg and harvesting occurs around the Dauphin River floodplain.</p> <p>Manitoba Metis Federation reported that water-level fluctuations have affected gathering activities, such as berry harvesting.</p> <p>Manitoba Metis Federation reported that Dauphin river has plant harvesting areas along its edges.</p> <p>Manitoba Metis Federation reported that personal harvesting areas throughout the Lake Manitoba and Lake St. Martin region, demonstrating that Metis Nation citizens exercise their rights within the Study Area including plant gathering.</p> <p>Manitoba Metis Federation reported that commercial harvesting occurs within the Lake Manitoba, Lake St. Martin, and Lake Winnipeg regions.</p> <p>Manitoba Metis Federation reported that the shorelines of Lake Manitoba and Lake Winnipeg are areas where Metis citizens harvest plants and other natural materials.</p> <p>Manitoba Metis Federation identified gathering areas within the Project area.</p> <p>The Manitoba Metis Federation reported that the shorelines of Lake Manitoba and Lake Winnipeg are locations where Manitoba Metis citizens harvest plants and other natural materials.</p> <p><u>Issues and Concerns:</u></p> <p>Manitoba Metis Federation stated that flooding can reduce land use activities and harvesting opportunities.</p> <p>Manitoba Metis Federation is concerned that, given the potential of the Project to affect the lands and waters where Metis Nation citizens gather natural materials, the Project may also affect their ability to exercise these Section 35 rights.</p> <p>Manitoba Metis Federation is concerned that the clearing of the proposed outlet channels themselves could also lead to the reduced availability of plant species.</p> <p>Manitoba Metis Federation are concerned about the management of soil stockpiles adjacent to the Project site and the colonization of the channels by invasive species.</p> <p><u>Recommendations made by Manitoba Metis Federation:</u></p> <ul style="list-style-type: none"> Manitoba Metis Federation recommends on-going monitoring of natural revegetation success. 	<p><u>Species identified by Manitoba Metis Federation:</u> nuts, chaga mushrooms, tamarack, firewood, small white lady slipper, black poplar buds</p> <p><u>Plant species in the RAA commonly understood to be harvested Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> Portions of Lake Winnipeg, Lake St. Martin and Lake Manitoba are within the PDA. The Dauphin River floodplain is within the PDA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>Manitoba Infrastructure acknowledges that the information about use of plants and plant harvesting by Manitoba Metis Federation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use plants and plant harvesting by Manitoba Metis Federation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Manitoba Metis Federation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7). As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Manitoba Metis Federation to discuss the Environmental Management Plans. As of mid-March, 2022, Manitoba Metis Federation has not confirmed a meeting date. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<ul style="list-style-type: none"> Manitoba Metis Federation recommends that Manitoba Infrastructure make a clear commitment that a reclamation goal for the area is to return the site to a productive state that supports traditional land use as quickly as possible, including important vegetation and habitats that support wildlife. Manitoba Metis Federation recommends that Manitoba Infrastructure provide detailed information on how and where soil stockpiles will be placed, separated by soil types (topsoil, high quality subsoil and low-quality subsoil) and the stabilization, erosion control, revegetation and monitoring practices that will take place. <p>The Manitoba Metis Federation has directed Manitoba Infrastructure not to cite secondary sources in regulatory reporting for this Project.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program</p> <p>MMF 2018</p> <p>MMF 2020</p> <p>MMF 2021a</p> <p>MMF 2021b</p> <p>MMF 2021c</p>			<p>restoration of vegetation cover in disturbed areas.</p> <ul style="list-style-type: none"> The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Manitoba Metis Federation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready</p>

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				<p>workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Manitoba Metis Federation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p><u>Existing Conditions:</u></p> <p>Manitoba Metis Federation reported that changes in water level have changed access and water travel, with portages lost and water travel more hazardous. Flooding has wiped out numerous camp sites and boat launches causing the overcrowding of remaining sites.</p> <p>Manitoba Metis Federation reported that logs and debris in the summer make the travel more and more treacherous, while in the fall and winter there are serious obstacles to travel from changes in water levels and patterns of ice formation.</p> <p>The Manitoba Metis Federation reported that the Manitoba Metis Federation have numerous historic cart trails and water routes within the Project area.</p> <p>Manitoba Metis Federation reported that because of increased water levels in Lake St. Martin, they can no longer access the boat launch.</p> <p>Manitoba Metis Federation reported that many travel routes exist throughout the Project Area, specifically through Lake Manitoba and along the northern and eastern shores of Lake Winnipeg. Travel routes that participants identified are similar to the water routes that were used during the fur trade prior to 1870. Many cultural routes were also mapped by participants within the Project area, these often correspond to Metis settlement areas, travel routes, trading posts, and follow travel routes.</p> <p>Manitoba Metis Federation reported changes to the water quality in Lake Winnipeg after an emergency drainage channel that had been dug between Lake St. Martin and Lake Winnipeg, noting that because of increased water levels in Lake St. Martin, they could no longer access the boat launch,</p>	<p><u>Locations:</u> Portions of Lake Manitoba and Lake Winnipeg are in the PDA. Lake St. Martin is in the PDA. Dauphin River is in the LAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about location of travel routes identified by Manitoba Metis Federation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for travel routes by Manitoba Metis Federation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. 	<p>The success of mitigation for travel routes will be monitored through the EMPs These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in</p>

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<p><u>Issues and Concerns:</u></p> <p>Manitoba Metis Federation is concerned about loss of land and access from flooding and erosion, as well as impacts to transportation safety.</p> <p>The Manitoba Metis Federation has directed Manitoba Infrastructure not to cite secondary sources in regulatory reporting for this Project.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program MMF 2020 MMF 2021b MMF 2021c</p>		<p>(e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<ul style="list-style-type: none"> Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Manitoba Metis Federation to discuss the Environmental Management Plans. As of mid-March, 2022, Manitoba Metis Federation has not confirmed a meeting date. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Manitoba Metis Federation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD1 to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with</p>

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				<p>provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Manitoba Metis Federation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p><u>Existing Conditions:</u></p> <p>Manitoba Metis Federation reported cultural and occupancy sites in the vicinity of Lake Winnipeg.</p> <p>Manitoba Metis Federation reported that flooding has wiped out numerous camp sites and boat launches causing the overcrowding of remaining sites.</p> <p>The Manitoba Metis Federation reported the presence of hunting cabins the Project area where hunting and fishing occur.</p> <p>The Manitoba Metis Federation reported that significant sites exist primarily to the north of Lake St. Martin, with several camping sites identified to the south and east.</p> <p>The Manitoba Metis Federation reported the presence of a Hudson Bay post along the Dauphin River.</p>	<p><u>Locations:</u> Portions of Lake Winnipeg and Lake St. Martin are within the PDA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>Manitoba Infrastructure acknowledges that the information about use of habitation, cultural and spiritual sites and areas by Manitoba Metis Federation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of habitation, cultural and spiritual sites and areas by Manitoba Metis Federation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Manitoba Metis Federation.</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. 	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing</p>

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<p>The Manitoba Metis Federation reported that there are many places where camping occurs throughout the entire Project area</p> <p>Manitoba Metis Federation reported that there are many places where participants stay on the land overnight, either in a tent or cabin, throughout the entire Project area. Many of these areas are along the shores and islands of Lake Winnipeg.</p> <p>Manitoba Metis Federation reported that Manitoba Métis Land Use and Occupancy Studies show extensive use and occupancy by the Manitoba Métis across the entire Project area.</p> <p>The Manitoba Metis Federation has directed Manitoba Infrastructure not to cite secondary sources in regulatory reporting for this Project.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program</p> <p>MMF 2018</p> <p>MMF 2020</p> <p>MMF 2021a</p> <p>MMF 2021b</p> <p>MMF 2021c</p>		<p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<ul style="list-style-type: none"> Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigation strategies. An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><i>Residual Effects after Mitigation:</i> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Manitoba Metis Federation to discuss the Environmental Management Plans. As of mid-March, 2022, Manitoba Metis Federation has not confirmed a meeting date. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Manitoba Metis Federation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p>

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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
				<p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Manitoba Metis Federation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>Matheson Island Northern Affairs Community <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p>Manitoba Infrastructure has obtained no information about Matheson Island Northern Affairs Community hunting or trapping or traditionally harvested species in the RAA has been obtained through the Indigenous consultation and engagement program or a review of publicly available literature.</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> moose, mule deer, white-tailed deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, muskrat, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p> <p><u>Locations:</u> No specific hunting or trapping sites or locations used by Matheson Island Northern Affairs Community within the RAA were identified through the Indigenous Consultation and Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>In the absence of specific information about current use by Matheson Island Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping Matheson Island Northern Affairs Community occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped Matheson Island Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan, so that potential effects from the Project are appropriately assessed and mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment</p>

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		<p>LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>ROW and not extend beyond the PDA (Chapter 8, Section 8.2).</p> <ul style="list-style-type: none"> Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA.</p>	<p>(feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Matheson Island Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop</p>

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				<p>applicable training for the Project. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Matheson Island Northern Affairs Community may bring forward and incorporate into regulatory reporting</p>
Aquatic Environment and Fishing				
<p>Manitoba Infrastructure has obtained no information about Matheson Island Northern Affairs Community fishing or traditionally harvested fish species in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye (pickerel).</p> <p><u>Locations:</u> No specific aquatic environment and fishing locations used by Matheson Island Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>In the absence of specific information about current use by Matheson Island Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Matheson Island Northern Affairs Community to occur within the RAA and that species commonly understood to be caught by Indigenous peoples that occur within the RAA may be fished by Matheson Island Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St.</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such as water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel</p>

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		<p>Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>up the opening of the control structures to allow fish time to move away from the structures.</p> <ul style="list-style-type: none"> Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. The majority of Project channel excavation and construction will be conducted "in the dry" and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and 	<p>routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Matheson Island Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating</p>

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			<p>set-back distances to avoid effects to sensitive life stages of fish</p> <ul style="list-style-type: none"> Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. 	<p>opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about aquatic environment and fishing that Matheson Island Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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			<ul style="list-style-type: none"> Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	
Plants and Plant Harvesting				
<p>Manitoba Infrastructure has obtained no information about Matheson Island Northern Affairs Community plant harvesting or traditionally harvested plant species in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>In the absence of specific information about current use by Matheson Island Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Matheson Island Northern Affairs Community to occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested Matheson Island Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
	<p>berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> No specific plant harvesting sites or locations Matheson Island Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>plant species management, and wildlife habitat restoration</p> <ul style="list-style-type: none"> As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. 	<p>10.2.7). As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Matheson Island Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
			<p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Matheson Island Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p>Manitoba Infrastructure has obtained no information about Matheson Island Northern Affairs Community use of travel routes in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific travel routes used by Matheson Island Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by Matheson Island Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by Matheson Island Northern Affairs Community to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p>	<ul style="list-style-type: none"> • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. • As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Matheson Island Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and</p>

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		<p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>		<p>Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Matheson Island Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Habitation, Cultural and Spiritual Sites				
<p>Manitoba Infrastructure has obtained no information about Matheson Island Northern Affairs Community use of habitation, cultural and spiritual sites in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations used by Matheson Island Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about habitation, cultural and spiritual sites and areas identified by Matheson Island Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Matheson Island Northern Affairs Community to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Matheson Island Northern Affairs Community to date.</p>

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		<p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>		<p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and</p>

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<p>Infrastructure will review any information about habitation, cultural and spiritual sites that Matheson Island Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>				
<p>Misipawistik Cree Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u></p> <p>Misipawistik Cree Nation reported that the Project area contains migratory and breeding grounds for moose, caribou, and several other species.</p> <p>Misipawistik Cree Nation reported that the region has critical habitat for northern birds and mammals, such as moose and caribou.</p> <p>Misipawistik Cree Nation reported several important sites within their traditional territory including Chitek Lake Provincial Park (ranges of five major ungulates overlap); Long Point Ecological Reserve; Walter Cook Special Conservation Area (piping plover nesting); Walter Cook Caves Ecological Reserve (little brown bat hibernacula); Kaweenakumik Islands Ecological Reserve (nesting birds); Summerberry Marsh Proposed Wildlife Management Area (important bird area).</p> <p><u>Recommendations made by Misipawistik Cree Nation:</u></p> <ul style="list-style-type: none"> Misipawistik Cree Nation requests consultation with First Nations regarding the potential impacts of the construction and operation of the outlet channels using a combination of western science and traditional ecological knowledge as well as co-development of operational and mitigation plans for all aspects of the channel once all data and studies are complete. <p><u>Sources:</u></p> <p>Misipawistik Cree Nation 2020 Misipawistik Cree Nation 2021</p>	<p><u>Species identified by Misipawistik Cree Nation:</u> moose, caribou, little brown bat.</p> <p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> moose, mule deer, white-tailed deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, muskrat, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p> <p><u>Locations:</u> Chitek Lake Provincial Park, Long Point Ecological Reserve, Walter Cook Caves Ecological Reserve, Kaweenakumik Islands Ecological Reserve, Summerberry Marsh Proposed Wildlife Management Area are outside the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about hunting and trapping by Misipawistik Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Misipawistik Cree Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Misipawistik Cree Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
May 31, 2022

Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2).</p> <ul style="list-style-type: none"> Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Misipawistik Cree Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force</p>

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				<p>requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Misipawistik Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u></p> <p>Misipawistik Cree Nation reported that fishing is fundamental to their way of life.</p> <p>Misipawistik Cree Nation reported that the north-western shore of Lake Winnipeg is important for fish spawning rivers.</p> <p>Misipawistik Cree Nation reported that fishing is a way to maintain their language and culture, and a method to foster relationships across generations of their people.</p> <p>Misipawistik Cree Nation reported that Lake St. Martin is an important spawning habitat for Lake Winnipeg's lake whitefish and walleye (pickerel) populations.</p> <p>Misipawistik Cree Nation reported that sturgeon is a culturally significant species.</p> <p>Misipawistik Cree Nation reported that Misipawistik Cree Nation has over 90 commercial fishers who employ staff and fishing is the single most important economic activity in the community.</p> <p>Misipawistik Cree Nation reported that after the operations of the EOC, changes in the flow of water, particularly around Long Point, increased debris in the water, decrease in whitefish in Gull Bay, decreased water quality, changes in turbidity and water flow in the winter, changes in fish movements, and increased difficulty in fisher success have been observed and</p>	<p><u>Species identified by Misipawistik Cree Nation:</u> walleye (pickerel), lake whitefish, sturgeon</p> <p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye (pickerel).</p> <p><u>Locations:</u> Lake St. Martin is within the PDA. Portions of Lake Winnipeg and Sturgeon Bay is within the PDA. <u>Long Point and Gull Bay are located outside of the RAA.</u></p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish and loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by Misipawistik Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Misipawistik Cree Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Misipawistik Cree Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality,</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such as water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to</p>

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<p>experienced by Misipawistik Cree Nation fishers. <u>Issues and Concerns:</u></p> <p>Misipawistik Cree Nation is concerned that the new channel will permanently affect the size and location of pickerel (walleye) and whitefish populations.</p> <p>Misipawistik Cree Nation is concerned that the access that the fish have to the spawning grounds in Lake St. Martin will be limited, and that the flows of the lake will negatively affect the fish populations.</p> <p>Misipawistik Cree Nation is concerned that the construction and operation of the channel will have a serious impact on the flows and aquatic health in the northern basin of Lake Winnipeg.</p> <p>Misipawistik Cree Nation is concerned about the potential impact of flows into Sturgeon Bay.</p> <p>Misipawistik Cree Nation is concerned that any long-term changes to flows, and habitats that affect spawning areas, or otherwise adversely affect fish, would devastate this community.</p> <p>Misipawistik Cree Nation is concerned that the LSMOC will create significant attraction flows but no way for the fish to access Lake St. Martin through the channel. There are likely to be major physiological/energetic consequences to the additional effort these fish expend as the attempt to circumnavigate the LSMOC.</p> <p>Misipawistik Cree Nation is concerned about impacts to water quality/chemistry, particularly in Lake St. Martin and Sturgeon Bay, as a result of channel construction and operational impacts on groundwater dynamics.</p> <p>Misipawistik Cree Nation is concerned that major increases in the quantity of water that moves through Lake St. Martin are likely to profoundly affect aquatic habitat productivity.</p> <p>Misipawistik Cree Nation is concerned that habitat will be lost and is not being replaced by equivalent habitat; thus, aquatic productivity will be affected.</p> <p>Misipawistik Cree Nation is concerned that the new channel will permanently impact the size and location of pickerel and whitefish populations.</p> <p>Misipawistik Cree Nation is concerned that access to spawning grounds in Lake St. Martin will be limited and the flows of the lake will negatively affect fish populations. Misipawistik Cree Nation is also concerned that the new permanent channels will degrade or destroy spawning areas.</p> <p>Misipawistik Cree Nation is concerned that construction and operation of the channel will have a serious impact on the flows and aquatic health in the northern basin of Lake Winnipeg,</p>		<p>changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>While there may be some changes to fish movements and habitat use due to the relocation of flows through the channels, this will be monitored and is not currently expected to affect regional biodiversity or sustainability of regional fish populations.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and</p>	<p>will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43).</p> <ul style="list-style-type: none"> • Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. • Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted “in the dry” and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba 	<p>verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Misipawistik Cree Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and</p>

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<p>which poses creating challenges for the long-term health of Lake Winnipeg and the Misipawistik Cree Nation way of life.</p> <p>Misipawistik Cree Nation is concerned that there is a lack of understanding of fish populations in the potentially affected areas and issues with the monitoring approach, as Misipawistik Cree Nation believes that the approach does not address requirements of the new Fisheries Act.</p> <p>Misipawistik Cree Nation is concerned about the Project monitoring that focuses on three focal species (whitefish, pike, walleye) and a generic "forage fish" category, which fails to consider quantitative, population-level impacts on most species in the Project area.</p> <p>Misipawistik Cree Nation is concerned about how changes in total suspended solids (TSS) caused by the channel will impact spawning habitat.</p> <p>Misipawistik Cree Nation is concerned about the impacts on small fish as they navigate the new structures as well fish seeking spawning grounds as the channel does not allow for upstream fish passage.</p> <p>Misipawistik Cree Nation is concerned about the lack of baseline data including lack of information of benthic invertebrates and overall fish communities as well as the lack of consideration of Indigenous knowledge regarding sturgeon habitat and spawning behaviour in the region.</p> <p>Misipawistik Cree Nation is concerned about erosion due to the softening of till forming the bed and banks of the channel.</p> <p>Misipawistik Cree Nation is concerned about sediment plumes and how wind and wave action will impact the dissipation of sediment plumes caused by the channels.</p> <p>Misipawistik Cree Nation is concerned about shoreline erosion during operation and the effects of wind and wave setup.</p> <p>Misipawistik Cree Nation is concerned that flow changes will cause fish to significantly change their natural movements in Lake Winnipeg and cause less hospitable conditions for fish. This would have a severe negative impact on Misipawistik Cree Nation's commercial fishery, resulting in further loss of livelihoods in Misipawistik Cree Nation and result in further loss of traditional knowledge.</p> <p>Misipawistik Cree Nation is concerned about an increase in the presence of blue-green algae in the lake sand rivers and the release of toxins.</p> <p><u>Recommendations made by Misipawistik Cree Nation:</u></p> <ul style="list-style-type: none"> Misipawistik Cree Nation recommends that Manitoba Infrastructure create a mitigation plan demonstrating how lost habitat will be replaced. 		<p>headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat.</p> <ul style="list-style-type: none"> Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to 	<p>will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about aquatic environment and fishing that Misipawistik Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<ul style="list-style-type: none"> Misipawistik Cree Nation recommends that Manitoba Infrastructure conduct studies and create modelling based on flow in collaboration with the First Nations in the north basin of Lake Winnipeg. Misipawistik Cree Nation recommends that Manitoba Infrastructure study and develop a robust mitigation plan to ensure the health and population of the fish are not compromised as result of altered migration and spawning habitats. Misipawistik Cree Nation recommends that Manitoba Infrastructure address gaps in impacts of this Project on fish and fish habitat and speak directly with Indigenous fishers and knowledge holder prior to the final assessment of the Project. Misipawistik Cree Nation requests an assessment of TSS concentration estimates based on the initial TSS concentrations in diverted flood waters that pass through the channels plus predicted amounts eroded from the channels. Misipawistik Cree Nation requests consultation with First Nations regarding the potential impacts of the construction and operation of the outlet channels using a combination of western science and traditional ecological knowledge as well as co-development of operational and mitigation plans for all aspects of the channel once all data and studies are complete. Misipawistik Cree Nation recommends completing studies of the potential impacts to aquatic and terrestrial landscape, especially those that might impact Indigenous and treaty rights. <p><u>Sources:</u> Misipawistik Cree Nation 2020 Misipawistik Cree Nation 2021</p>			<p>realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered.</p> <ul style="list-style-type: none"> Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	
Plants and Plant Harvesting				
<p>Manitoba Infrastructure has obtained no information about Misipawistik Cree Nation plant harvesting or traditionally harvested plant species in the RAA through the Indigenous engagement program or a review of publicly available literature.</p> <p><u>Recommendations made by Misipawistik Cree Nation:</u></p> <ul style="list-style-type: none"> Misipawistik Cree Nation requests consultation with First Nations regarding the potential impacts of the construction and operation of the outlet channels using a combination of western science and traditional ecological knowledge as well as co-development of operational and mitigation plans 	<p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>In the absence of specific information about current use by Misipawistik Cree Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Misipawistik Cree Nation to occur within the RAA and that species commonly</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p>

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<p>for all aspects of the channel once all data and studies are complete.</p> <ul style="list-style-type: none"> Misipawistik Cree Nation recommends completing studies of the potential impacts to aquatic and terrestrial landscape, especially those that might impact on Indigenous and treaty rights. <p><u>Sources:</u> Misipawistik Cree Nation 2021</p>	<p>cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p>Location: No specific plant harvesting sites or locations used by Misipawistik Cree Nation within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Misipawistik Cree Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>them to harvest traditionally used plants, in advance of the start of Project construction..</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. 	<p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Misipawistik Cree Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and</p>

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			<ul style="list-style-type: none"> Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Misipawistik Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
Travel Routes				
<p>Manitoba Infrastructure has obtained no information about Misipawistik Cree Nation use of travel routes in the RAA through the Indigenous engagement program or a review of publicly available literature.</p> <p><u>Recommendations made by Misipawistik Cree Nation:</u></p> <ul style="list-style-type: none"> Misipawistik Cree Nation requests consultation with First Nations regarding the potential impacts of the construction and operation of the outlet channels using a combination of western science and traditional ecological knowledge as well as co-development of operational and mitigation plans for all aspects of the channel once all data and studies are complete. <p><u>Sources:</u></p> <p>Misipawistik Cree Nation 2021</p>	<p><u>Locations:</u> No specific travel routes used by Misipawistik Cree Nation within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by Misipawistik Cree Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by Misipawistik Cree Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Misipawistik Cree Nation to date.</p>

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		<p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed at specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition</p>

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				<p>to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Misipawistik Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p><u>Existing Conditions:</u></p> <p>Misipawistik Cree Nation reported that there are several ecologically important areas in their traditional territory that are within or adjacent to the Project including: Karst Landscape Area of Special Interest (karst geography) and Little Limestone Lake Provincial Park (outstanding global example of a marl lake).</p> <p>Misipawistik Cree Nation reported that they have a spiritual and cultural connection to the waters and view fishing as one of the key ways in which they exercise and maintain their traditional way of life and their spiritual relationship with the water and land.</p> <p><u>Recommendations made by Misipawistik Cree Nation:</u></p> <ul style="list-style-type: none"> Misipawistik Cree Nation requests consultation with First Nations regarding the potential impacts of the construction and operation of the outlet channels using a combination of western science and traditional ecological knowledge as well as co-development of operational and mitigation plans for all aspects of the channel once all data and studies are complete. <p><u>Sources:</u></p> <p>Misipawistik Cree Nation 2020 Misipawistik Cree Nation 2021</p>	<p><u>Locations:</u> Little Limestone Lake and Karst Landscape are outside the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>Manitoba Infrastructure acknowledges that the information about use of habitation, cultural and spiritual sites and areas by Misipawistik Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of habitation, cultural and spiritual sites and areas by Misipawistik Cree Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Misipawistik Cree Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> The HRIA identified existing or potential sites and prescribes site specific mitigation. The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. The EPP identifies specific existing and potential sites and specific measures to protect them. The AMP controls access around the Project construction area. Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also</p>

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		<p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<p>of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Misipawistik Cree Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify</p>

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<p>anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Misipawistik Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>				
<p>Norway House Northern Affairs Community <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p>Manitoba Infrastructure has obtained no information about Norway House Northern Affairs Community hunting or trapping or traditionally harvested species in the RAA through the Indigenous consultation and engagement program or a review of publicly available literature.</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> moose, mule deer, white-tailed deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, muskrat, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p> <p><u>Locations:</u> No specific hunting or trapping sites or locations used by Norway House Northern Affairs Community within the RAA were identified through the Indigenous Consultation and Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>In the absence of specific information about current use by Norway House Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping Norway House Northern Affairs Community occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Norway House Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly,</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations, 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory</p>

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		<p>through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<ul style="list-style-type: none"> Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Norway House Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for</p>

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				<p>Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to all to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Norway House Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Aquatic Environment and Fishing				
<p><u>Issues and Concerns:</u> Norway House Northern Affairs Community has concerns related to effects to Lake Winnipeg water levels, water quality, commercial fishing, debris, recreation, domestic water supply.</p> <p><u>Sources:</u> Manitoba Infrastructure Indigenous Engagement Program - Appendix 5A.20</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye (pickerel).</p> <p><u>Locations:</u> No specific aquatic environment and fishing locations used by Norway House Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>In the absence of specific information about current use by Norway House Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for fishing by Norway House Northern Affairs Community to occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be fished by Norway House Northern Affairs Community.</p> <p>During a flood event, water flows across the land and can pick up sediments that contain chemicals such as fertilizers, pesticides and other contaminants. Under current conditions, this material flows through the Fairford River and the Dauphin River during floods. The Project will reduce the amount of overland flooding and is therefore expected to reduce the amount of contamination entering Lake Winnipeg.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba.</p>	<p>Effects regarding sediments, debris and contamination are addressed in the SWMP, SMP, PERs and Debris Management Plan. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Implement measures for materials handling, waste handling and disposal and fuel handling and storage in designated areas located a minimum of 100 m from waterbodies and with secondary containment. Debris and materials shall be removed from the ice cover (over waterbodies) on an on-going basis, and disposed of in an appropriate landfill or other location. Sediments will be monitored, and visual inspections will be carried out as part of the SWMP and SMP and contingency mitigation measures such as silt fencing and materials to minimize bank erosion will be used, where necessary. The banks of the channel will be revegetated to reduce erosion. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. If required, at the start of operation, the water control structure gates can be gradually opened to control sediment levels, based on results of sediment monitoring. There will likely be increases in sediment concentrations at the end of the channel, but they will be managed to address water quality concerns through monitoring and flow adjustments. <p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such as water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized</p>

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		<p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<ul style="list-style-type: none"> Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. 	<p>in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Norway House Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force</p>

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			<ul style="list-style-type: none"> • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted "in the dry" and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. • Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). • To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish 	<p>requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about aquatic environment and fishing that Norway House Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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			<p>upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible.</p> <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p>Measures to avoid or reduce effects to commercial fishing are identified in the CEMP and include:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will engage with commercial fish harvesters, anglers, local resource users, and MSD Regional Officials to address potential conflict, disturbance, or access restrictions to fishing/harvesting areas in the PDA and LAA, and availability of fish resources. <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
Plants and Plant Harvesting				
<p>Manitoba Infrastructure has obtained no information about Norway House Northern Affairs Community plant harvesting or traditionally harvested plant species in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugle-weed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> No specific plant harvesting sites or locations used by Norway House Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>In the absence of specific information about current use by Norway House Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Norway House Northern Affairs Community to occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Norway House Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and</p>

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			<p>restoration of vegetation cover in disturbed areas.</p> <ul style="list-style-type: none"> The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Norway House Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition</p>

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				<p>to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Norway House Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p>Manitoba Infrastructure has obtained no information about Norway House Northern Affairs Community use of travel routes in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific travel routes used by Norway House Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by Norway House Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by Norway House Northern Affairs Community to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also</p>

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		<p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<p>alignment will be on top of the containment dikes on either side of the excavated channel.</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Norway House Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force</p>

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				<p>requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Norway House Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p>Manitoba Infrastructure has obtained no information about Norway House Northern Affairs Community use of habitation, cultural and spiritual sites in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations used by Norway House Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about habitation, cultural and spiritual sites and areas identified by Norway House Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Norway House Northern Affairs Community to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRlA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. 	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the</p>

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		<p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><i>Residual Effects after Mitigation:</i> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Norway House Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help</p>

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				<p>to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE R, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Norway House Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
<p>Norway House Cree Nation</p>				
<p><i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u></p> <p>Norway House Cree Nation reported hunting and trapping beaver, muskrat, moose.</p> <p>Norway House Cree Nation also reported that the Eastern whip-poor-will, red-headed woodpecker, Northern leopard frog, wood frog, boreal chorus frog, Canadian toad, and bat were species of importance.</p> <p>Norway House Cree Nation reported that all species are important parts of the ecosystems. It is culturally important that ecosystems that support the full range of native species are protected. In order to thrive over the long-term, species need large areas that are healthy, so that populations are sustainable over time and are able to survive severe weather events,</p>	<p><u>Species Identified by Norway House Cree Nation:</u> beaver, muskrat, moose, Eastern whip-poor-will, red-headed woodpecker, bat, Northern leopard frog, wood frog, boreal chorus frog, Canadian toad, gull.</p> <p><u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> mule deer, white-tailed deer, elk, black bear, coyote, wolf, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink,</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about hunting and trapping by Norway House Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Norway House Cree Nation to occur throughout the RAA and that species commonly understood to be</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental</p>

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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>disease incidents, fluctuations in populations due to predation and competition.</p> <p>Norway House Cree Nation reported that the aquatic habitat of mammals, including beaver and muskrat has been negatively affected over large areas of the watershed due to hydroelectric development, wetland drainage, urban and agricultural development is of concern when a new Project is proposed that will further affect such habitat.</p> <p>Norway House Cree Nation reported that beaver are a species of cultural importance and are significant to the maintenance of biodiversity.</p> <p>Norway House Cree Nation reported that beavers are important to the creation and maintenance of small wetland habitats that are essential for many other species including moose.</p> <p>Norway house Cree Nation reported that adverse effects to Lake Winnipeg and Playgreen Lake will affect commercial trapping.</p> <p>Norway House Cree Nation has reported that habitat change has negatively affected wildlife. Loss of wetlands and good quality shoreline habitats has reduced moose populations.</p> <p>Norway House Cree Nation has reported that wetland loss and degradation has affected habitat for waterbirds including migration resting and feeding places, breeding, and rearing habitat. Water level fluctuations outside of natural patterns have also affected populations of colonial nesting birds such as gulls, which are important for egg gathering.</p> <p><u>Issues and Concerns:</u></p> <p>Norway House Cree Nation has concerns that the channel construction will likely affect existing beaver habitat in the local area due to the direct footprint of the channels and changes in adjacent surface hydrology.</p> <p>Norway House Cree Nation has concerns that the Project will affect the Buffalo Creek ecosystem and degrade wildlife habitat.</p> <p>Norway House Cree Nation has concerns about the siting of new quarries and the expansion of seldom-used quarries and effects to wildlife habitat.</p> <p>Norway House Cree Nation is concerned about effects of regular mowing (for vegetation control) on species that may inhabit the grassy vegetation areas.</p> <p>Norway House Cree Nation is concerned about what measures are being taken to identify existing bat roosting sites, especially nurseries.</p> <p>Norway House Cree Nation is concerned about drainage of agricultural lands which may contain pesticides, herbicides,</p>	<p>rabbit, fisher, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p> <p><u>Locations:</u> Portions of Lake Winnipeg are within the PDA. Buffalo Creek is within the PDA. Limestone Bay is outside of the RAA. Playgreen Lake is outside the RAA.</p>	<p>harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Norway House Cree Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>gated access road to reduce wildlife mortality risk.</p> <ul style="list-style-type: none"> As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). This includes the selection of quarry sites. Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., 	<p>Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Norway House Cree Nation were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and</p>

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<p>fertilizers, and other chemicals that may affect water quality, waterfowl and small and large game animals.</p> <p>Norway House Cree Nation is concerned about the potential impact of biological and chemical contaminants ingested by animals and its impacts on the traditional diet of fish, waterfowl, and game eaten by the community.</p> <p>Norway House Cree Nation is concerned about the impact to wetlands and nesting areas for waterfowl and other migratory birds.</p> <p>Norway House Cree Nation is concerned about the identification of species of cultural importance for involved Indigenous groups and noted that all species are culturally important but only mentioned species with specific environmental management plans. Norway House Cree Nation indicated that no comprehensive list of species of cultural interest has been developed for the assessment of the proposed Project.</p> <p>Norway House Cree Nation is concerned with the designation of only moose and caribou as the only species of cultural importance related to the Project and assessments.</p> <p>Norway House Cree Nation is concerned about the quality of aquatic habitat for muskrat, beaver, otter, and all wetland birds.</p> <p>Norway House Cree Nation expressed concern regarding the observed reduction in the populations of many herptiles.</p> <p>Norway House Cree Nation is concerned about cumulative effects on important species such as Northern leopard frog, wood frog, boreal chorus frog, and Canadian toad across the region due to degradation of habitat of herptiles in Manitoba due to water regulation.</p> <p>Norway House Cree Nation is concerned about the impact of extended high-water periods on terrestrial species such as moose and aquatic species, such as beaver, muskrat, and otter. Norway House Cree Nation is concerned about the use of focal species as opposed to a species population approach to describe the pre-Project baseline.</p> <p>Norway House Cree Nation is concerned that the baseline data for wildlife is insufficient to support monitoring at the population level over time for most species.</p> <p>Norway House Cree Nation is concerned that by assessing habitat change rather than population data, many potential factors that impact population of wildlife. Population data can also include predator-prey interactions and human hunting morality. The lack of population data makes it difficult to determine whether potential Project related factors such as poorly implemented access control, habitat loss, degradation of wetland vegetation food sources, and road mortality.</p>			<p>forbs, shrubs, young trees) re-establishes along the ROW edges.</p> <p>Part a) of the formal response to IAAC-122 explains how TLRU information was incorporated into the environmental assessment process for the Project.</p> <p>A fulsome list of culturally important wildlife species identified by Norway House Cree Nation through the Indigenous consultation and engagement program or a review of publicly available literature is available in IAAC-87 (Table 87-1).</p> <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Norway House Cree Nation may</p>

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<p>Norway House Cree Nation is concerned that fluctuations in lake levels on Lake St. Martin, which is highly influenced by the Fairfield water control structure, creating conditions that are not ideal for muskrat and beaver.</p> <p><u>Recommendations made by Norway House Cree Nation:</u></p> <ul style="list-style-type: none"> Norway House Cree Nation requests Manitoba Infrastructure to provide information on the expected effects of regular mowing (for vegetation control) on species that may inhabit the grassy vegetation areas, and whether mowing practices will be planned to minimize disturbance to ground nesting birds, young mammals, etc. Norway House Cree Nation requests Manitoba Infrastructure to clarify and provide more information about how the habitat of species at risk will be protected in the process of quarry site selection. Norway House Cree Nation requests Manitoba Infrastructure to provide more information on what measures are being taken to identify existing bat roosting sites. Norway House Cree Nation recommends a detailed monitoring program to inform adaptive management and understand residual effects in regards to the complex responses of wildlife to changes in hydrology. Norway House Cree Nation recommends additional field studies be conducted before embarking on major projects to improve meaningful monitoring for Project effects. <p><u>Sources:</u></p> <p>Luttermann and A. L. Ecologic . 2021a Luttermann and A.L. Ecologic. 2021b NHCN 2018a A.L. Ecologic 2022</p>				<p>bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u></p> <p>Norway House Cree Nation has reported that the Project will impact local waterways and potentially impact the exercise of aboriginal and treaty rights of our membership.</p> <p>Norway House Cree Nation noted that changes to wetlands that have already occurred in Lake Manitoba may have reduced wetland function in relation to nutrient cycling.</p> <p>Norway House Cree Nation reported significant negative impacts from activities occurring upstream of Lake Winnipeg and Playgreen Lake.</p>	<p><u>Species Identified by Norway House Cree Nation:</u> pickerel (walleye), lake whitefish, northern pike, perch, suckers,</p> <p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, , common carp, channel catfish, burbot, trout, sauger.</p> <p><u>Locations:</u> Portions of Lake Winnipeg and Lake Manitoba are within the PDA. Watchorn Bay is</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by Norway House Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has</p>	<p>Effects regarding sediments, debris and contamination have been considered in the SWMP, SMP, PERs and Debris Management Plan. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Debris and materials shall be removed from the ice cover (over waterbodies) on an on-going basis and disposed of in an appropriate landfill or other location. Sediments will be monitored, and visual inspections will be carried out as part of the SWMP and SMP and contingency mitigation 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p>

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<p>Norway House Cree Nation has reported that Lake Winnipeg water quality continues to be affected and has observed more sediments, turbidity, algae blooms, and invasive species, zebra mussels.</p> <p>Norway House Cree Nation reported that lake Whitefish have declined in the Nelson River water bodies since flow manipulation began.</p> <p>Norway House Cree Nation reported that Limestone Bay is an important fish nursery and area of cultural significance.</p> <p>Norway House Cree Nation reported that the water channeled through the LMOC and LSMOC would then eventually flow into the north basin of Lake Winnipeg, Playgreen Lake, Kiskitto Lake, Kiskittogisu Lake, Playgreen Lake, and in the Nelson River. These waterbodies form the heart of the traditional territory of Norway House Cree Nation.</p> <p>Norway House Cree Nation reported that fish habitat has also been degraded in Lake Winnipeg and down the Nelson River due to flood control and hydroelectric works, and inputs of nutrients from agriculture and urban development.</p> <p>Norway House Cree Nation has observed continual changes in the quality of surface water in Lake Winnipeg, Playgreen Lake, and the Nelson River over the past several decades. These changes include increased turbidity in the water all year and especially during high water events; increased algae in water; erratic and inconsistent flow changes affecting bank and bottom erosion; and increased debris in the water during and following flood events. Water quality changes are accompanied by changes in the fish community composition, notably the decline of Lake Whitefish and increases in introduced species such as common carp</p> <p>Norway House Cree Nation reported to have one of the largest commercial fisheries on Lake Winnipeg, harvesting walleye, whitefish, northern pike, perch, suckers, and other fish.</p> <p>Norway House Cree Nation reported that challenges to fishery include hydroelectric development, eco-certification, shoreline erosion, algae bloom, eventual influx of zebra mussels.</p> <p>Norway House Cree Nation reported adverse effects to Lake Winnipeg and Playgreen Lake will affect fishing commercially and for sustenance.</p> <p>Norway House Cree Nation reported that zebra mussels are already present in Lake Winnipeg, Playgreen Lake and are moving into the Nelson River. Prospects are serious for ecosystems and infrastructure.</p> <p>Norway House Cree Nation reported fishing, hunting, trapping, and plant harvesting have been degraded throughout the region due to the cumulative effect of industrial and urban development and increased populations. Artificial manipulation</p>	<p>within the PDA. Dauphin River and Birch Creek is within the LAA. Limestone Bay and Playgreen Lake and Nelson River, Cross Lake, Kiskitto Lake Kiskittogisu Lake, Sipiwesk Lake, and the Assiniboine River are outside of the RAA.</p>	<p>conservatively assumed that there is the potential for use of the aquatic environment and fishing by Norway House Cree Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Norway House Cree Nation.</p> <p>During a flood event, water flows across the land and can pick up sediments that contain chemicals such as fertilizers, pesticides and other contaminants. Under current conditions, this material flows through the Fairford River and the Dauphin River during floods. The Project will reduce the amount of overland flooding and is therefore expected to reduce the amount of contamination entering lakes.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>As described in Volume 3, Section 7.2.1.5 of the EIS, the RAA includes Limestone Bay, but the south basin of Lake Winnipeg has not been included in the RAA because it is separated from the north basin by the narrows and is relatively distinct from the north basin in terms of water quality, depth, climate and biological characteristics.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource</p>	<p>measures such as silt fencing and materials to minimize bank erosion will be used, where necessary.</p> <ul style="list-style-type: none"> The banks of the channel will be revegetated to reduce erosion. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. If required, at the start of operation, the water control structure gates can be gradually opened to control sediment levels, based on results of sediment monitoring. There will likely be increases in sediment concentrations at the end of the channel, but they will be managed to address water quality concerns through monitoring and flow adjustments. <p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. 	<p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Norway House Cree</p>

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<p>of waterways has had extensive influence on the current use of lands and resources for traditional purposes.</p> <p>Norway House Cree Nation reported that anthropogenic manipulations of the landscape and waterways have degraded the ecosystems of the Lake Winnipeg and Nelson River Basin.</p> <p>Norway House Cree Nation has reported that habitat change has negatively affected fish and disrupted fish communities. Lake whitefish populations in waterbodies downstream of Lake Winnipeg have been seriously depleted. As well, walleye spawning tributaries have been reported to have degraded.</p> <p>Norway House Cree Nation reported that fishing pressure and river regulation has depleted species such as lake sturgeon and has resulted in loss of sturgeon spawning habitat, making recovery of populations more difficult. Norway House Cree Nation noted that stocking programs for mitigation have had limited success.</p> <p>Norway House Cree Nation reported that invasive species such as zebra mussels are moving north at a rapid rate.</p> <p>Norway House Cree Nation reported that fish communities have changes in downstream waterbodies since LWR (Lake Winnipeg Regulation) was completed, including decimated populations of whitefish in Cross Lake.</p> <p>Norway House Cree Nation reported that excessive erosion in the Nelson River associated with the existing regulated flow regime is not only changing the landscape and quality of shoreline habitats, but also water quality and fish habitat.</p> <p>Norway House Cree Nation reported that the combination of changes in erosion process and water level alterations in fall and winter may be partially responsible for reductions in lake whitefish reproduction in Cross Lake.</p> <p><u>Issues and Concerns:</u></p> <p>Norway House Cree Nation has expressed concerns that Limestone Bay, which provides important spawning habitat for pickerel and walleye, was not included in the scope of the RAA for the Project.</p> <p>Norway House Cree Nation expressed concern that contaminants in flood waters and potential reduction in water levels as a result of the Project could affect the health and/or existence of the Limestone Bay and the fish species that rely on it for important life processes.</p> <p>Norway House Cree Nation indicated that further loss or alteration of wetlands due to the Project may exacerbate the issue of nutrient cycling and result in further degradation of water quality and increase nutrient inputs to waterbodies important to the community for traditional use purposes.</p>		<p>harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<ul style="list-style-type: none"> Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. The majority of Project channel excavation and construction will be conducted "in the dry" and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish 	<p>Nation were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Norway House Cree Nation expressed concerns regarding potential for the Project to contribute to increased nutrient loading downstream of Lake Winnipeg.</p> <p>Norway House Cree Nation has concerns regarding drainage of agricultural fields and contamination of waters, noting that will be negative effects to water quality</p> <p>Norway House Cree Nation expressed concern about zebra mussels.</p> <p>Norway House Cree Nation is concerned that the channels will speed up the water.</p> <p>Norway House Cree Nation has reported that Lake Winnipeg sedimentation is reducing our water quality and Norway House Cree Nation is concerned that the Project will bring more sediment.</p> <p>Norway House Cree Nation has expressed concerns that water quality is deteriorating in part due to artificial channels speeding up flood flows and removing or by-passing natural wetlands that slow, settle and filter water.</p> <p>Norway House Cree Nation has serious concerns about the potential for effects that may extend into the north basin of Lake Winnipeg including Limestone Bay and down the Nelson River.</p> <p>Norway House Cree Nation is concerned that the placing of artificial reefs, while increasing habitat diversity, could degrade some existing spawning and foraging habitat in those areas that would not otherwise be directly affected by the outlet channel.</p> <p>Norway House Cree Nation has concerns about the discharge of water into Lake Winnipeg which flows into Playgreen Lake via Warren's Landing and the 2 and 8 mile channels, located within their traditional territory.</p> <p>Norway House Cree has expressed concerns about the drainage of agricultural lands which may contain pesticides, herbicides and chemicals that may affect water quality, fish, and other aquatic species, riparian and lake vegetation including wetlands and lake bottoms.</p> <p>Norway House Cree Nation is concerned that the Project may introduce species not native to Lake Winnipeg, accelerate the rate of invasive species, increase sediments and soils in water due to erosion and transport, and affect fish/aquatic habitat/ movement/ food source/ spawning.</p> <p>Norway House Cree Nation is concerned about the water quality of Lake Winnipeg and Playgreen Lake.</p> <p>Norway house Cree Nation is concerned about fish and fish habitat, including in lake Winnipeg North Basin and Playgreen lake commercial fisheries.</p>			<ul style="list-style-type: none"> Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. 	<p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Norway House Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>Norway House Cree Nation is concerned about the effects on Limestone Bay, a protected walleye (pickerel) spawning area.</p> <p>Norway House Cree Nation is concerned about the effects of the Project on Lake Winnipeg algae blooms.</p> <p>Norway House Cree Nation is concerned about the water quality impacts of the Project, including turbidity, contaminants of concern, and total suspended sediments.</p> <p>Norway House Cree Nation is concerned about the Portage Diversion and the effects of the channel and operation of the flood control system as a whole on the downstream water courses including the Nelson River.</p> <p>Norway House Cree Nation is concerned about eutrophication in the region as the Project may change fish habitat and impact the use and enjoyment of waterbodies by people living in near them.</p> <p>Norway House Cree Nation is concerned about additional capacity in the flood control system that allows flood waters to be flushed more quickly north into the Nelson River.</p> <p>Norway House Cree Nation is concerned about the quality of fish habitat that the channels can provide.</p> <p>Norway House Cree Nation is concerned about whether Fairford and Dauphin Rivers will have adequate base flows in the channels during low flow periods.</p> <p>Norway House Cree Nation is concerned about the influence of diversions from the Assiniboine River during high water years on flooding in the Interlake region, water quality, fish and their habitat, wetland and riparian habitats, debris transport, and land use.</p> <p>Norway House Cree Nation is concerned about fish kills due to low water flow.</p> <p>Norway House Cree Nation is concerned that the RAA does not include the north basin of Lake Winnipeg, Limestone Bay, or any areas at the outlet of Lake Winnipeg or downstream.</p> <p>Norway House Cree Nation is concerned that additional artificial control structures that serve to allow flood waters to flow more quickly into Lake Winnipeg and the Nelson River potentially add to the negative effects felt from previous infrastructure.</p> <p>Norway House Cree Nation is concerned about inadequate consideration of the incremental downstream effects in the Nelson River of each flood control project in the south and the limited geographical scope of the LMOC and LSMOC environmental assessment.</p>			<ul style="list-style-type: none"> Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). The Aquatic Offset Plan includes baseline monitoring of current habitat use and monitoring and follow up to assess the effectiveness of habitat creation. Artificial reefs will be located to enhance existing habitat and not degrade it. <p>Measures to avoid or reduce effects to commercial fishing are identified in the CEMP and include:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will engage with commercial fish harvesters, anglers, local resource users, and MSD Regional Officials to address potential conflict, disturbance, or access restrictions to fishing/harvesting areas in the PDA and LAA, and availability of fish resources. <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	

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<p>Norway House Cree Nation is concerned about the inadequate mitigation and compensation for cumulative downstream effects on Lake Winnipeg.</p> <p>Norway House Cree Nation is concerned with increases in water levels and increases in the magnitude and duration of floods.</p> <p>Norway House Cree Nation is concerned about the excessive erosion in the Nelson River associated with the existing regulated flow regime, which is changing the landscape and quality of shoreline habitat as well as affecting to water quality and fish habitat.</p> <p>Norway House Cree Nation is concerned with the conclusion that there are no adverse downstream effects in the outlet lakes to Lake Winnipeg, further downstream in Cross Lake and the narrow channels leading to Sipiwesk Lake, which are likely already experiencing higher rates of erosion due to flow regulation</p> <p>Norway House Cree Nation is concerned with the lack of addressing ecological and social context of effects downstream regions and the conclusion that no effects are expected on the current use of lands for traditional purposes, or the ability to exercise Indigenous and treaty rights relative to waterbodies.</p> <p>Norway House Cree Nation is concerned about the addition of more high-water periods caused by upstream regulation, perpetuating the unnatural hydrological patterns in the reaches downstream of the outflow of Lake Winnipeg that create more difficult conditions for travel and land use as well as uncertainty and stress. Natural flow is more predictable and natural variation and uncertainty are seen as more acceptable, as it is not created or controlled by other people.</p> <p>Norway House Cree Nation is concerned about small increases in peak water levels.</p> <p>Norway House Cree Nation is concerned about fish community composition changes and the factors impacting population recovery, such as erosion process changes in relation to increased outflow capacity of Lake Winnipeg and the altered seasonal flow patterns.</p> <p>Norway House Cree Nation expressed concern about whitefish mitigation in the Dauphin River.</p> <p>Norway House Cree Nation is concerned about fish spawning location in Watchorn Bay.</p> <p>Norway House Cree Nation is concerned about the unclear residual effects on fish populations.</p> <p>Norway House Cree Nation is concerned about the understanding of the duration and intensity of the impacts that have been suffered by Indigenous groups over time due to the</p>				

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<p>existing artificial water control systems that would work in conjunction with the proposed Project.</p> <p><u>Recommendations made by Norway House Cree Nation:</u></p> <ul style="list-style-type: none"> Norway House Cree Nation recommends that consultation should involve commercial fishers association, trappers, elders and youth Norway House Cree Nation recommended that consultation should include dialog addressing specific issues such as methylmercury in fish that is a concern for many people associated with water control projects. Norway House Cree Nation would like to discuss the options for assessment and monitoring of the health of the aquatic and riparian habitats in Limestone Bay in relation to existing water level manipulation and additional modifications that could be caused by the LMOC and LSMOC Project Norway House Cree Nation would like explanation about why the Portage Diversion and its operation is not included within the spatial and temporal boundaries of the Project Norway House Cree Nation recommends results of modelling be provided which estimate the effect on Playgreen Lake water levels with and without outlet channels. Norway House Cree Nation would like to discuss whether the effects of the channels routing floodwaters more quickly into Lake Winnipeg could exacerbate erosion, unstable ice conditions, periods of high and low water in the narrower river channels even with small increases in peak levels and duration of high water conditions. Norway House Cree recommends filling the knowledge gaps to understand the processes of eutrophication in the Interlake region including the relative contribution of flood control measures. Norway House Cree Nation would like to discuss whether there is any risk in having inadequate base flows during dry years and very low flow periods to maintain adequate fish habitat in both the outlet channels and the Dauphin and Fairford Rivers. Norway House Cree Nation would like to discuss the extent to which provision of base flows to the channels will ensure fish habitat of a quality and function that will offset the permanent alteration or destruction of fish habitat. Norway House Cree Nation requests that the RAA be made larger to include a careful study of incremental effects of passing flood waters to the north even more quickly than is currently the case and consider the existing 				

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<p>Coordinated Aquatic Monitoring Program and whether it is adequate to address the concerns related to river and lake regulation including flood control and hydroelectric production.</p> <ul style="list-style-type: none"> Norway House Cree Nation requests greater effort in decreasing the excessive nutrient inputs into waterbodies throughout the entire Lake Winnipeg basin. <p><u>Sources:</u> Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.15 Luttermann and A.L. Ecologic. 2021a Luttermann and A.L. Ecologic. 2021b NHCN 2018a NHCN 2018b NHCN 2020 A.L. Ecologic 2022</p>				
Plants and Plant Harvesting				
<p><u>Existing Conditions:</u> Norway House Cree Nation has reported wetland loss and degradations as well as loss of good quality shoreline habitats, which has impacted wildlife and fish populations. Norway House Cree Nation has reported that shorelines that have been affected by water regulations have less diverse and depleted plant communities. Norway House Cree Nation reported that flow regimes that have created poorer quality, less diverse shoreline and wetland habitats have been affecting many species important to Norway House Cree Nation for decades.</p> <p><u>Issues and Concerns:</u> Norway House Cree Nation is concerned about the control of invasive species. Norway House Cree Nation is concerned about the cumulative effects of LWR and upstream flow controls on Limestone Bay in the northwest basin of Lake Winnipeg and shoreline plant communities. Norway House Cree Nation expressed concerns about the risks associated with using herbicides near wetlands, including potential harm to amphibians, invertebrates and birds. Norway House Cree Nation is concerned that adverse effects to Lake Winnipeg and Playgreen Lake will affect medicine, tea, and non-timber forest product gathering.</p>	<p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod,</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas. Manitoba Infrastructure acknowledges that the information about use of plants and plant harvesting by Norway House Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use plants and plant harvesting by Norway House Cree Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Norway House Cree Nation. While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project. For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component. During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p>

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<p>Norway House Cree Nation is concerned about the impacts on wetlands and the many uses provided by their natural filter</p> <p>Norway House Cree Nation is concerned about the impacts to the southern areas where medicines that are traded to Norway House Cree Nation grow,</p> <p>Norway House Cree Nation is concerned about the degradation of vegetation communities over large areas created by excessive projects, especially the cumulative effects on shoreline plant communities.</p> <p>Norway House Cree Nation is concerned about wetland habitat quality, including the characteristics of beaver influenced wetlands.</p> <p>Norway House Cree Nation is concerned about the identification of culturally important plant species by Manitoba Transportation and Infrastructure for involved Indigenous groups and noted that all species are culturally important and essential to ecosystems.</p> <p>Norway House Cree Nation is concerned about the effectiveness of the monitoring and adaptive management proposed for wetlands that may be directly affected by changes to surface and groundwater hydrology as it depends on the level of effort made.</p> <p>Norway House Cree Nation is concerned about the lack of using beaver as a focal species as they have an important influence on the biodiversity of several classes of wetlands and many of the types of wetlands are expected to be directly affected by the Project. All species associated with beaver influenced wetlands are "of interest".</p> <p><u>Recommendations made by Norway House Cree Nation:</u></p> <ul style="list-style-type: none"> Norway House Cree Nation requests additional information on the herbicides that may be used on the Project. Norway House Cree Nation requests information on how potential cumulative effects of herbicide use in the region on non-target species be assessed. Norway House Cree Nation recommends training and employing Norway House Cree Nation members in environmental monitoring for the post-Project monitoring of revegetated and restoration areas. Norway House Cree Nation recommends conducting detailed pre- and post-Project fieldwork to document possible changes in vegetation community types and diversity in select wetlands, in particular where the hydrology may have changed. <p><u>Sources:</u> Luttermann and A.L. Ecologic. 2021a</p>	<p>meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> Portions of Lake Winnipeg are in the PDA. Limestone Bay and Playgreen Lake are outside of the RAA.</p>	<p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<ul style="list-style-type: none"> The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). 	<p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7). As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Norway House Cree Nation were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities,</p>

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<p>Luttermann and A.L. Ecologic . 2021b NHCN 2018a NHCN 2020</p>			<ul style="list-style-type: none"> The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p>Part a) of the formal response to IAAC-122 explains how TLRU information was incorporated into the environmental assessment process for the Project.</p> <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Norway House Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p><u>Existing Conditions:</u> Norway House Cree Nation reported that access to resources has been reduced for Norway House Cree Nation due to the effects of the LWR. Access to many hunting, fishing, trapping, and plant harvesting areas is more difficult due to water level changes and unstable ice conditions.</p> <p><u>Issues and Concerns:</u> Norway House Cree Nation is concerned that a drastic change in water quantity may affect the navigational safety structures in Lake Winnipeg and Playgreen Lake.</p>	<p><u>Locations:</u> Portions of Lake Winnipeg are in the PDA. Playgreen Lake is outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by Norway House Cree Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by Norway House Cree Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Norway House Cree Nation is concerned that navigation in open water season and in winter is going to be negatively affected by the Project, causing people to travel further to gather plants, hunt and fish.</p> <p><u>Sources:</u> Luttermann and A.L.Ecologic. 2021b NHCN 2018a NHCN 2020</p>		<p>to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting</p>	<ul style="list-style-type: none"> • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. • As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><u>Residual Effects after Mitigation:</u> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Norway House Cree Nation were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p>

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		<p>upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>		<p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Norway House Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Habitation, Cultural and Spiritual Sites				
<p><u>Existing Conditions:</u></p> <p>Norway House Cree Nation noted that Lake Winnipeg is connected to Nelson River, which is an area of importance.</p> <p>Norway House Cree Nation reported that the removal and reburial of human remains is highly troubling for many people. If there are any remains that are not noticed or identified that will be disturbed. Even if there are no human remains are discovered ceremonies should be conducted to honour and acknowledge the disturbance to the land and the potential disturbance of human remains.</p> <p>Norway House Cree Nation has reported a historical gravesite located at the Northern Flood Agreement compensation side 3.6 Eight Mile Channel B.</p> <p>Norway House Cree Nation has reported additional cultural sites that include traditional fishing/hunting cabins and docks at Lake Winnipeg and Playgreen Lake.</p> <p>Norway House Cree Nation has reported adverse effects to Lake Winnipeg and Playgreen Lake may affect camping and similar activities.</p> <p><u>Issues and Concerns:</u></p> <p>Norway House Cree Nation is concerned with the potential flooding of confirmed historical gravesite, which is adjacent to a low-lying beached area.</p> <p>Norway House Cree Nation is concerned of elevated water, as docks were partially or completely submerged in previous elevated water years.</p> <p>Norway House Cree Nation is concerned about the effects on heritage structures in traditional territories including trappers, fishing, traditional cabins, ceremonial sites and the confirmed 8 mile channel gravesite.</p> <p>Norway House Cree Nation is concerned about the assessment of the natural and cultural landscape. Norway House Cree Nation reported that each major project that creates massive alteration to the landscape is of great importance to Norway House Cree Nation and should be looked at in terms of cumulative effects.</p> <p><u>Recommendations made by Norway House Cree Nation:</u></p> <ul style="list-style-type: none"> Norway House Cree Nation requests more information regarding the basic training that is provided for all site workers to recognize potential heritage resources and how to follow protocols. Norway House Cree Nation recommends assessing natural and cultural landscapes in terms of cumulative effects. 	<p><u>Locations:</u> Nelson River and Playgreen Lake are located outside of the RAA, while portions of Lake Winnipeg are located within the PDA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>Manitoba Infrastructure acknowledges that the information about use of habitation, cultural and spiritual sites and areas by Norway House Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of habitation, cultural and spiritual sites and areas by Norway House Cree Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Norway House Cree Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Apart from the two known cemeteries, no burials or unmarked graves</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> The HRIA identified existing or potential sites and prescribes site specific mitigation. The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. The EPP identifies specific existing and potential sites and specific measures to protect them. The AMP controls access around the Project construction area. Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Norway House Cree Nation were provided to Manitoba Transportation and Infrastructure in April 2021.</p>

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<p>Sources:</p> <p>Luttermann and A.L. Ecologic. 2021a Luttermann and A.L. Ecologic. 2021b NHCN 2018a</p>		<p>have been identified or reported in the RAA. Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>		<p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p>

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<p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Norway House Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>				
<p>O-Chi-Chak-Ko-Sipi First Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p>Manitoba Infrastructure has obtained no about O-Chi-Chak-Ko-Sipi First Nation hunting or trapping or traditionally harvested species in the RAA through the Indigenous consultation and engagement program or a review of publicly available literature.</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> moose, mule deer, white-tailed deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, muskrat, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p> <p><u>Locations:</u> No specific hunting or trapping sites or locations used by O-Chi-Chak-Ko-Sipi First Nation within the RAA were identified through the Indigenous Consultation and Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>In the absence of specific information about current use by O-Chi-Chak-Ko-Sipi First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping O-Chi-Chak-Ko-Sipi First Nation occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by O-Chi-Chak-Ko-Sipi First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife— either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or</p>

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		<p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>Project, so that areas and time periods of activity can be avoided.</p> <ul style="list-style-type: none"> As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>mitigated(Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from O-Chi-Chak-Ko-Sipi First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the</p>

**LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT
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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
May 31, 2022

Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
				<p>Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that O-Chi-Chak-Ko-Sipi First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Aquatic Environment and Fishing				
<p><u>Issues and Concerns:</u> O-Chi-Chak-Ko-Sipi First Nation has reported unresolved issues from previous floods. O-Chi-Chak-Ko-Sipi First Nation are concerned about fish and fish habitat, as well as invasive species. <u>Sources:</u> Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.15</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye (pickerel). <u>Locations:</u> No specific aquatic environment and fishing locations within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>In the absence of specific information about current use by O-Chi-Chak-Ko-Sipi First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for fishing by O-Chi-Chak-Ko-Sipi First Nation to occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be fished by O-Chi-Chak-Ko-Sipi First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such as water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first</p>

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		<p>monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43).</p> <ul style="list-style-type: none"> • Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. • Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. 	<p>two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from O-Chi-Chak-Ko-Sipi First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
			<ul style="list-style-type: none"> All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. The majority of Project channel excavation and construction will be conducted “in the dry” and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. 	<p>stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about aquatic environment and fishing that O-Chi-Chak-Ko-Sipi First</p>

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			<p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Plants and Plant Harvesting				
<p><u>Existing Conditions:</u> O-Chi-Chak-Ko-Sipi First Nation indicated that the flooding of Lake St. Martin has impacted the harvest of medicinal herbs and plants.</p> <p><u>Sources:</u> Manitoba Infrastructure 2018b</p>	<p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>Manitoba Infrastructure acknowledges that the information about plant harvesting by O-Chi-Chak-Ko-Sipi First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by O-Chi-Chak-Ko-Sipi First Nation occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and</p>

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	<p>primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> Lake St. Martin is within the PDA.</p>	<p>within the RAA may be harvested by O-Chi-Chak-Ko-Sipi First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided.</p> <ul style="list-style-type: none"> As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least 	<p>Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from O-Chi-Chak-Ko-Sipi First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p>

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			<p>persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effect of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that O-Chi-Chak-Ko-Sipi First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Travel Routes				
<p>Manitoba Infrastructure has obtained no information about O-Chi-Chak-Ko-Sipi First Nation use of travel routes in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific travel routes within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by O-Chi-Chak-Ko-Sipi First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by O-Chi-Chak-Ko-Sipi First Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. • As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from O-Chi-Chak-Ko-Sipi First Nation to date.</p>

**LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT
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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
May 31, 2022

Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition</p>

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				<p>to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that O-Chi-Chak-Ko-Sipi First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p>Manitoba Infrastructure has obtained no information about O-Chi-Chak-Ko-Sipi First Nation use of habitation, cultural and spiritual sites in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about habitation, cultural and spiritual sites and areas identified by O-Chi-Chak-Ko-Sipi First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by O-Chi-Chak-Ko-Sipi First Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also</p>

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		<p>in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<p>of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from O-Chi-Chak-Ko-Sipi First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify</p>

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<p>anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about aquatic environment and habitation, cultural and spiritual sites that O-Chi-Chak-Ko-Sipi First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>				
<p>Peguis First Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u></p> <p>Peguis First Nation reported hunting and trapping moose, white-tailed deer, elk, lynx, mink, otter, caribou, wolf, coyote, red fox, squirrel, rabbit, American marten, fisher, short-tailed weasel, long-tailed weasel, beaver, muskrat, Canada goose, geese, ducks, ruffed grouse, sharp-tailed grouse, partridge, grouse, prairie chicken.</p> <p>Peguis members identified the following animals that are hunted around Lake Winnipeg and its river system: rabbit, moose, geese, ducks, chicken, muskrat, elk, beaver, grouse, mink, marten, otter, bear, porcupine, wolf, caribou, ptarmigan, wild turkey, deer, trumpeter swan and sandhill cranes.</p> <p>Peguis members identified the following animals that are trapped around Lake Winnipeg and its river system: rabbit, muskrat, beaver, squirrel, weasel, mink, fisher, marten, fox, lynx, otter, coyote, wolf, wolverine, groundhog, porcupine, skunk, and cougar.</p> <p>Peguis First Nation reported that hunting for moose, deer, and elk take place in a large area east of Lake St. Martin and is relied upon for moose.</p> <p>Peguis First Nation reported hunting near Mantagao (Birch) Lake.</p>	<p><u>Species Identified by Peguis First Nation:</u> moose, white-tailed deer, elk, lynx, mink, otter, caribou, wolf, coyote, red fox, squirrel, rabbit, American marten, fisher, short-tailed weasel, long-tailed weasel, beaver, muskrat, Canada goose, geese, ducks, ruffed grouse, sharp-tailed grouse, partridge, grouse, prairie chicken, wild turkey, bear, porcupine, ptarmigan, groundhog, skink, cougar, trumpeter swan, sandhill cranes.</p> <p><u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> mule deer, wolverine, mallard, bald eagle.</p> <p><u>Locations:</u> Portions of Lake Winnipeg and its river systems are within the PDA. The Lake St. Martin Access Road (formerly EOC Access Road) crosses the LAA. Portions of the area south of Lake</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about hunting and trapping by Peguis First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Peguis First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Peguis First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly,</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory</p>

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<p>Peguis First Nation reported trapping lynx, mink, and otter in an area south of Lake Winnipeg.</p> <p>Peguis members use the access road (Idylwild) for hunting and trapping.</p> <p>Peguis First Nation recorded two traplines, one south of Lake Winnipeg and the other west of Peguis 1B Reserve.</p> <p>Peguis First Nation indicated that eagle feathers are gathered in an area near the proposed EOC access road.</p> <p>Peguis First Nation rely on wildlife for country foods and sustenance.</p> <p>Peguis First Nation reported that development activities affect animals such as moose and deer because they are sensitive to noise.</p> <p>Peguis First Nation participates in hunting small game, big game hunting, trapping and snaring, waterfowl hunting.</p> <p>Peguis First Nation has reported that animals have changed behavior due to flooding.</p> <p>Peguis First Nation has reported that waterfowl nesting sites have been damaged and the birds have not come back.</p> <p>Peguis First Nation reported that there are no chickens to hunt on Idylwild Road.</p> <p>Peguis First Nation has reported that shoreline erosion and changes have impacted ability to hunt, trap and gather.</p> <p>Peguis First Nation reported that they rely on Lake Winnipeg and its waterways for sustenance and ceremonial purposes.</p> <p><u>Issues and Concerns:</u></p> <p>Peguis First Nation raised concerns regarding on- going flooding in the region from control structures and increases in water levels on Lake Winnipeg that may cause the erosion of lake shoreline that diminishes the value of hunting.</p> <p>Peguis First Nation expressed concern that local flooding may interfere with local hunting and trapping.</p> <p>Peguis First Nation expressed concern that the LSMOC will cut off wildlife movement and allow invasive species to spread.</p> <p>Peguis First Nation expressed concern that access road construction to disturb wildlife.</p> <p>Peguis First Nation is concerned that the new hydro line connecting to the Lake St. Martin water control structure will affect wildlife.</p> <p>Peguis First Nation expressed concern regarding the Project's impact on waterfowl and shore birds.</p>	<p>Winnipeg are within the RAA. Mantagao Lake is within the RAA. The Idylwild Road is in the RAA.</p>	<p>through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<ul style="list-style-type: none"> • Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). • Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. • The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. • Clearing will not occur between April 1 and August 31 to avoid disturbance to nesting birds and other wildlife (Chapter 8, Section 8.3). • Terrestrial buffers, as identified by the Manitoba Conservation Data Centre's Recommended Development Setback Distances from Birds and/or MSDs Forest Management Guidelines for Terrestrial Buffers will be adhered to for all applicable sites (Chapter 8, Section 8.3; PERS, Section 2.9.1). 	<p>committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>A sharp-tailed grouse lek survey will be completed in 2022 identify any leks (i.e., traditional mating sites) that have the potential to interact with the Project .</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 2.2).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Peguis First Nation to discuss the Environmental Management Plans. Meetings were held with Peguis First Nation on the following dates: May 12, 2021 and May 21, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Peguis First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and</p>

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<p>Peguis First Nation expressed concerns about trumpeter swans.</p> <p>Peguis First Nation expressed concerns about sandhill cranes.</p> <p>Peguis First Nation are concerned about moose populations.</p> <p>Peguis First Nation is concerned that hydrologic regulation might affect furbearers.</p> <p><u>Recommendations made by Peguis First Nation:</u></p> <ul style="list-style-type: none"> Peguis First Nation recommends protection of hunting, trapping, recreational use and eagle feather gathering areas. Peguis First Nation recommended the use of geotextile materials along the channels, rather than riprap, as it injures animals. <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.17</p> <p>Golder Associates 2018</p> <p>NEB 2015</p> <p>Peguis First Nation 2016</p>			<ul style="list-style-type: none"> If construction is scheduled to occur within the nesting period for owls and raptors (March 1 to August 31), a nest survey may be conducted by a qualified wildlife biologist if warranted. In the event an active nest is found, it will be subject to site-specific mitigation measures (i.e., clearly marked protective buffer around the nest and/or non-intrusive monitoring) (Chapter 8, Section 8.3). <p>The Red-headed Woodpecker and Eastern Whip-poor-will Habitat Mitigation Plans are not intended to be offset or compensation plans, but instead are species-specific habitat enhancement plans. The Red-headed Woodpecker Habitat Mitigation Plan includes measures to enhance the edges of the LMOC with shrubs and snags that will benefit not only red-headed woodpecker, but also other wildlife including species of cultural importance such as grouse, snowshoe hare, and red fox. Along the LSMOC, the Eastern Whip-poor-will Habitat Mitigation Plan describes how shrub and tree cover plantings will be added to the edges of the ROW where upland habitat (i.e., forest) exists. These plantings will provide habitat for eastern whip-poor-will and other animals including birds and furbearers.</p> <p>Manitoba Transportation and Infrastructure will comply with the Migratory Birds Convention Act, 1994 and follow prohibitions, including, but not limited to, avoiding the deposition of harmful substances in wetlands frequented by migratory birds (see IAAC-50).</p> <p>Additionally, BMPs described in the PERs and CEMP will be applied to all Project components and will include plans for hazardous material transportation and management, emergency response (i.e., spills), dust control, working in or near water, petroleum storage and equipment fueling and servicing, and erosion and sedimentation control. The PERs and the draft Dust Control Plan (see Attachment 1 – Updated Environmental Management Plans) stipulate dust control application requirements and the PERs and Manitoba Environmental Accident Reporting Regulation stipulate reporting requirements and response measures for hydrocarbons and other products (e.g., see PER 2.5.2; Attachment 1 – Updated Environmental Management Plans). The road will be operated and maintained in a manner consistent with Manitoba Transportation and Infrastructure’s practice for the current PR 239 and other public roads throughout the Province of</p>	<p>will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Peguis First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
May 31, 2022

Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
			<p>Manitoba. Based on the mitigation measures and BMPs described above, and the limited interaction of the road realignment with wetland habitat, potential effects can be avoided or reduced.</p> <p>The Red-headed Woodpecker Habitat Mitigation Plan contains a nest structure survey that will be used to assess the effectiveness of these mitigation measures by monitoring the structural integrity of salvaged decadent trees and artificial nest boxes.</p> <p>The distribution line is expected to be constructed in accordance with Manitoba Hydro's standard industry specifications for distribution lines (see IAAC-47).</p> <p>Part a) of the formal response to IAAC-122 explains how TLRU information was incorporated into the environmental assessment process for the Project.</p> <p>A fulsome list of culturally important wildlife species identified by Peguis First Nation through the Indigenous consultation and engagement program or a review of publicly available literature is available in IAAC-87 (Table 87-1).</p> <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u></p> <p>Peguis First Nation reported fishing for species that include northern pike, walleye, lake whitefish, jackfish, and pickerel (walleye), suckers, catfish, perch, sauger, crayfish, smallmouth bass, sturgeon, white bass, largemouth bass, lake trout, yellow perch, rainbow trout, speckled trout, brook trout, freshwater smelt, musky.</p> <p>Peguis First Nation reported subsistence and recreational fishing occur at Lake St. Martin, Dauphin River, Mantagao River, and Sturgeon Bay year-round.</p>	<p><u>Species Identified by Peguis First Nation:</u> northern pike, walleye, lake whitefish, jackfish, pickerel, suckers, catfish, perch, walleye, sauger, crayfish, smallmouth bass, sturgeon, white bass, largemouth bass, lake trout, yellow perch, rainbow trout, speckled trout, brook trout, freshwater smelt, muskey.</p> <p><u>Species in the RAA commonly understood to be harvested by</u></p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by Peguis First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively</p>	<p>Effects regarding sediments, debris and contamination are addressed in the SWMP, SMP and Debris Management Plan. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Sediments will be monitored, and visual inspections will be carried out as part of the SWMP and SMP and contingency mitigation measures such as silt fencing and materials to minimize bank erosion will be used, where necessary. 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of</p>

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<p>Peguis First Nation also reported fishing in Lake Manitoba, Lake Winnipeg, and Mantagao (Birch) Lake.</p> <p>Peguis First Nation has noted that surface waters have been altered from their natural courses leading to an increase in the incidence of flooding.</p> <p>Peguis First Nation indicated that degradation in surface water quality has impaired historic surface drinking water drinking sources and may be affecting fish health.</p> <p>Peguis First Nation commented on reluctance to drink from various natural water sources, including Lake Winnipeg, due to contamination and expressed concerns about adverse impacts on wildlife from contaminated water.</p> <p>Peguis First Nation members rely on wetlands and the aquatic environment to harvest plants for ceremonial, medicinal and sustenance purposes.</p> <p>Peguis First Nation identified the following important areas on Lake Winnipeg including: the shoreline, the many islands (Long Point, George Island, Hecla Island).</p> <p>Peguis First Nation reported that the Netley-Libau marsh is a coastal wetland that has value to the environment such as erosion control, flood control, important medicines and food, habitat for fishing and hunting, and assimilation and metabolism of wastes and toxins, spawning and feeding habitat for fish, breeding of waterfowl, and shoreline stabilization and water quality improvement</p> <p>Peguis First Nation noted that the many islands that are important to our Peguis First Nation are disappearing and being eroded.</p> <p>Peguis First Nation reported that high Lake Winnipeg water levels exacerbated flooding.</p> <p>Peguis First Nation reported that the locations on Lake Winnipeg that you can fish and the types of fish caught have changed over the last 50 years.</p> <p>Peguis First Nation reported that the quality of the water in Lake Winnipeg has changed over the last 50 years.</p> <p>Peguis First Nation reported that spring or summer flooding makes it difficult to get onto the lake or commercial fish.</p> <p>Peguis First Nation reported that elevated water level in Lake Winnipeg has increased the danger of ice fishing, affected the spawning grounds (increased current would wash away the spawn), and caused erosion.</p> <p>Peguis First Nation reported that distance is increasing between Little Tamarack and Big Tamarack Island, due to erosion.</p>	<p><u>Indigenous groups:</u> common carp, burbot.</p> <p><u>Locations:</u> Lake St. Martin is within the PDA, Sturgeon Bay and portions of Lake Winnipeg and Lake Manitoba are within the PDA. Dauphin River and Mercer Creek are in the LAA. Spearhill Creek is in the LAA. Big Buffalo Lake and Little Buffalo Lake are in the LAA. Birch Creek and Watchorn Creek are in the LAA. Mantagao River is within the RAA. Lake St. George, Grand Rapids, Gimli, Fisher River, Fisher Bay, Jackhead, Hecla Island, Grand Beach, Winnipeg Beach, McBeth Point, Big Tamarack Island, Berens River, Selkirk, Victoria Beach, Netley-Libau Marsh, George Island, Matheson Island, Hnaua, Riverton, and Long Point are outside of the RAA. High Rock Lake is outside of the RAA. Reindeer Island and Sturgeon Islands are outside of the RAA. Split Lake and the Nelson River are outside of the RAA.</p>	<p>assumed that there is the potential for use of the aquatic environment and fishing by Peguis First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Peguis First Nation.</p> <p>During a flood event, water flows across the land and can pick up sediments that contain chemicals such as fertilizers, pesticides and other contaminants. Under current conditions, this material flows through the Fairford River and the Dauphin River during floods. The Project will reduce the amount of overland flooding and is therefore expected to reduce the amount of contamination entering Lake Winnipeg.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p>	<ul style="list-style-type: none"> The banks of the channel will be revegetated to reduce erosion. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. If required, at the start of operation, the water control structure gates can be gradually opened to control sediment levels, based on results of sediment monitoring. There will likely be increases in sediment concentrations at the end of the channel, but they will be managed to address water quality concerns through monitoring and flow adjustments. <p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. 	<p>commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Peguis First Nation to discuss the Environmental Management Plans. Meetings were held with Peguis First Nation on the following dates: May 12, 2021 and May 21, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and</p>

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<p>Peguis First Nation reported that fishing stations at Goodman's Landing and McBeth Point are affected by erosion.</p> <p>Peguis First Nation stated after the 2011 and 2014 floods, fishermen on Lake Winnipeg reported they could not find fish. There were no fish where they previously placed their nets.</p> <p>Peguis First Nation stated the EOC ruined one of the largest spawning grounds in the north basin of Lake Winnipeg.</p> <p>Peguis First Nation reported that High Rock Lake is important.</p> <p>Peguis First Nation reported that Big Buffalo Lake area and all areas to the east of the channels are important for hunting, trapping, fishing, and resource gathering.</p> <p>Peguis First Nation views hunting, trapping, fishing and resource gathering as an integral component of traditional ways of life. Peguis first Nation uses these activities as way to connect to history, language maintenance, and foster cross-generational relationships.</p> <p>Peguis First Nations reported that carbonate aquifer supplies water to the lakes, wetlands, and streams to the west of Peguis.</p> <p>Peguis First Nation reported that substantial migrations of lake whitefish from Lake Winnipeg are known to move upstream through Dauphin River in fall to spawn in Lake St. Martin.</p> <p>Peguis First Nation reported that plumes from EOC affected the commercial fishery in Lake Winnipeg</p> <p>Peguis First Nation reported that operation of the EOC has introduced large volume of suspended sediment into Sturgeon Bay</p> <p><u>Issues and Concerns:</u></p> <p>Peguis First Nation expressed concern regarding groundwater and surface water.</p> <p>Peguis First Nation is concerned about the spread of zebra mussels and other invasive species.</p> <p>Peguis First Nation raised concerns regarding changes in regional flows which will affect ongoing flooding and shoreline erosion and degrading water quality and algal issues.</p> <p>Peguis First Nation raised concerns regarding the Project's effect on going flooding in the region from control structures and</p> <p>increases in water levels on Lake Winnipeg that may cause the erosion of lake shoreline that diminishes the value of fishing.</p> <p>Peguis First Nation expressed concerns regarding water quality.</p>		<p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<ul style="list-style-type: none"> Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation 	<p>engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Peguis First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready</p>

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<p>Peguis First Nation documented concerns regarding fluctuating water levels, water quality degradation, the mobilization of pollutants and algal blooms in the RAA which limit the safe use of surface water.</p> <p>Peguis First Nation identified concerns regarding runoff from farm fields causing impacts to water quality in the RAA.</p> <p>Peguis First Nation expressed concern that aquatic ecosystem health in local waterbodies and waterways would be altered by the Project.</p> <p>Peguis First Nation expressed concerns for fish spawning areas.</p> <p>Peguis First Nation expressed concerns regarding drinking water quality and quantity.</p> <p>Peguis First Nation expressed concerns about the potential for changes in water flows to affect fish spawning areas.</p> <p>Peguis First Nation is concerned about the health of Lake Winnipeg and believe the impacts on the lake from regulation and pollution are all connected.</p> <p>Peguis First Nation is concerned that the regulation of Lake Winnipeg and maintaining high water levels continue to worsen the quality of water in the lake and ability to commercial fish.</p> <p>Peguis First Nation is concerned about fish and fish spawn die-off in the channels in winter.</p> <p>Peguis First Nation is concerned with how temperature changes in the water will affect fish.</p> <p>Peguis First Nation notes there will be impacts to the riparian and littoral zones of waterbodies, which are important areas for fish habitat.</p> <p>Peguis First Nation is concerned about how higher flows affect the benthic organisms and fish in Lake St. Martin.</p> <p>Peguis First Nation has concerns whether fish will continue to spawn in Mercer Creek and Spearhill Creek. Peguis First Nation is concerned about mercury coming through the channels.</p> <p>Peguis First Nation is concerned that increased lake levels will result in Lake Winnipeg backing down the Fisher River into Peguis during periods of high winds, flooding the community.</p> <p>Peguis First Nation is concerned that the Project will affect the fisheries on Lake St. Martin, potentially destroying them.</p> <p>Peguis First Nation is concerned that high water levels on Lake Winnipeg will cause issues in the Lake St. George area.</p> <p>Peguis First Nation is concerned about damage to swamps and wetlands along the Lake St. Martin channel route due to the movement of heavy equipment, both when the ground is frozen</p>			<p>are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p>Measures to avoid or reduce effects to commercial fishing are identified in the CEMP and include:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will engage with commercial fish harvesters, anglers, local resource users, and MSD Regional Officials to address potential conflict, disturbance, or access restrictions to fishing/harvesting areas in the PDA and LAA, and availability of fish resources. 	<p>workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Peguis First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>and thawed, noting that rig matting is an essential piece of equipment to protect the wetlands.</p> <p>Peguis First Nation is concerned that the use of chemical dust suppressants will become runoff, which can affect the environment.</p> <p>Peguis First Nation is concerned that the Project will affect the currents in Lake St. Martin by pushing water at greater speeds and adding additional currents.</p> <p>Peguis First Nation is concerned that the Project will use this channel as a reservoir for Lake Winnipeg during drought seasons or extreme cold winters, in addition to the Project using the channel to assist in meeting the energy requirements for export sales.</p> <p>Peguis First Nation is concerned that the channels will alter groundwater levels in these areas affecting wetlands, lakes, streams, habitat and culture.</p> <p>Peguis First Nation is concerned new channels will permanently affect the size and location of Walleye and Whitefish populations.</p> <p>Peguis First Nation is concerned with fish access from Dauphin River to Lake St. Martin</p> <p>Peguis First Nation is concerned about changes in flows and water quality in Sturgeon Bay and Lake St. Martin will negatively affect fish populations and water quality</p> <p>Peguis First Nation is concerned about changes to flow and turbidity around Reindeer Island and Big and Little Sturgeon Islands, increased debris, fouling or damaged nets, and high turbidity in Sturgeon Bay.</p> <p>Peguis First Nation is concerned that outflow plumes may scour and mobilize large amounts of rich sediments that have been building on the bottom over the centuries or mantle the area with fine sediments that will blanket the benthos and change the makeup of the bed of the bay irreparably.</p> <p>Peguis First Nation is concerned that changes in Dauphin River flows would affect whitefish movements and spawning.</p> <p>Peguis First Nations is concerned that lake whitefish may become attracted to flowing water they will not be able to ascend, which could delay or prevent the movement from the outflow into the Dauphin River.</p> <p>Peguis First Nation is concerned that the drop in water levels caused by the Project could expose finer sediments to beach erosion, and transport forces that may increase the turbidity along the shoreline and into the lake. Peguis First Nation is concerned that blue-green algae, which can fix nitrogen from the air, is on the increase in Lake Winnipeg and can release toxins.</p>			<p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	

**LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Peguis First Nation is concerned about turbidity and sedimentation in Lake St. Martin.</p> <p>Peguis First Nation is concerned the health of the wetlands in the Birch Creek, Big Buffalo and Watchorn Creek watersheds.</p> <p>Peguis First Nation stated that possible changes in wetlands are a prime concern,</p> <p>Peguis First Nation is concerned about the water quality of Split Lake.</p> <p>Peguis First Nation has expressed concern about the design of the channel, as any erosion of the bed will result in transport of eroded sediments to Lake St. Martin with possible adverse effects on fish habitats and the fishery and rights to a sustainable fishery.</p> <p>Peguis First Nation has expressed concern regarding sinkholes in the underlying limestone bedrock of the Interlake. Peguis First Nation notes sinkholes in the underlying limestone bedrock of the Interlake are a significant feature of the landscape. Their existence must be investigated because they could cause massive failures of the channel as the channel beds disappear into solution cavities or sinkholes. First Nations fishers describe the presence of bottomless holes in the bed of Lake St. Martin.</p> <p>Peguis First Nation stated that the health and sustainability of wetlands and their ecosystems are a prime concern, as the Project has the potential to increase fragmentation and the loss of upland, riparian, and wetland habitats.</p> <p>Peguis First Nation is concerned that the Project will introduce flood waters to the north basin of Lake Winnipeg, which is directly upstream of Split Lake. Flood waters are high in nutrients compared to non-flood waters. Since the Project is expected to shorten the residence time between Lake Manitoba and Lake Winnipeg, nutrient supply will be greater to Lake Winnipeg because sequestration of nutrients in Lake Manitoba and Lake St. Martin will be reduced. This increase in the amount of nutrient delivery to Lake Winnipeg is unknown.</p> <p>Peguis First Nation stated that availability of clean, pure natural water is a First Nation Right. Therefore, increasing the supply of flood waters, with elevated nutrients, is a huge concern for the First Nations living downstream of the project.</p> <p>Peguis First Nation is that the downstream boundary for the RAA does not include the Nelson River. Given the importance of the downstream habitats along the Nelson River to First Nations' traditional uses and SAR species, clarification was required to why the boundary of the RAA did not extend to these areas.</p>				

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<p>Peguis First Nation is concerned that the lack of baseline has dire implications for the success of the impact assessment of the project effects on fish and fish habitats, and the future success of monitoring programs.</p> <p><u>Recommendations made by Peguis First Nation:</u></p> <ul style="list-style-type: none"> • Peguis First Nation recommends protection of fishing areas. • Peguis First Nation recommends rig matting to protect wetlands during construction. • Peguis First Nation recommends the consideration of chemical dust suppressants, as chemical suppressants can become runoff that can affect the environment. • Peguis First Nation recommends that the Project go around the eastern part of Lake St. Martin. • Peguis First Nation recommends the water balancing modelling is done to simulate conditions before and after the Project for the aquifer. • Peguis First Nation recommends augmenting the analysis by modelling the outflow to sufficiently demonstrate the potential hydrodynamics, sediment transport, and morphological evolution of the bed sediments in Watchorn Bay and Lake St. Martin. • Peguis First Nation recommends assessing the effects of plumes on the movement of fish and commercial fishery in Lake St. Martin and Lake Winnipeg. • Peguis First Nation recommends assessing the effects a drop in the range of water levels may have Lake St. Martin's shoreline and littoral zone post-Project. • Peguis First Nation recommends fully assessing nutrient loading and supply from Lake Manitoba and Lake Winnipeg, including the effects of nutrients on algae, especially blue-green algae and their toxins and their effects on human and animal health. • Peguis First Nation notes that the choice of design criteria to withstand bed and bank erosion for this channel have not been explained and requests a detailed explanation and rationale for the choice of design criteria to withstand bed and bank erosion for this channel. • Peguis First Nation notes that the Fairford River will also transport sediment during floods. The sediment plumes from the Fairford River and LMOC must be modelled simultaneously for a range of floods to determine the impacts on Lake St. Martin. 				

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<ul style="list-style-type: none"> Peguis First Nation requests that Manitoba Transportation and Infrastructure must determine the prevalence of Karst features under the channel's right of ways. If these features are present, mitigation measures to address them must be discussed. <p>Peguis First Nation requests Manitoba Transportation and Infrastructure prove that the loss of headwater sources of groundwater will not affect the overall health and sustainability of the wetlands in the Birch Creek and Big Buffalo watersheds. Manitoba Transportation and Infrastructure must provide examples of similar projects that have replaced the source waters for wetlands and the success of these projects <u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.17</p> <p>Golder Associates 2018</p> <p>Manitoba Infrastructure 2019b</p> <p>Manitoba Infrastructure Indigenous Engagement- Peguis First Nation Meeting August 2020</p> <p>NEB 2015</p> <p>Peguis First Nation 2016</p> <p>Peguis First Nation 2018</p> <p>Peguis First Nation 2020a</p> <p>Peguis First Nation 2020b</p> <p>Peguis First Nation 2022</p>				
Plants and Plant Harvesting				
<p><u>Existing Conditions:</u></p> <p>Peguis First Nation reported harvesting <i>weekay</i> (<i>weke</i>, sweet flag), snakeroot, sweetgrass, cedar, balsam poplar, bearberry, blueberry, Canada gooseberry, choke cherry, highbush cranberry, jackpine, juniper, Labrador tea, raspberry, sage, Saskatoon berry, bullrush, poison ivy, wild rice, mint, yellow from lily, mountain ash, chaga.</p> <p>Peguis First Nation reported that Seneca root, snakeroot, yellow frog lily, mountain ash, sweetgrass ana chaga, are found in the Project area and are valuable to the health and well-being of Peguis First Nation.</p> <p>Peguis First Nation reported picking berries and medicines in various locations, with a high value area located east of the proposed EOC access road.</p>	<p><u>Plant species Identified by Peguis First Nation:</u> <i>weekay root</i> (<i>weke</i>, sweet flag), snakeroot, sweetgrass, cedar, balsam poplar, bearberry, blueberry, Canada gooseberry, chokecherry, highbush cranberry, jackpine, juniper, Labrador tea, raspberry, sage, Saskatoon berry, Seneca root, strawberry, red willow, bullrush, poison ivy, wild rice, mint, bullrush, lily pad, yellow frog lily, mountain ash, chaga.</p> <p><u>Other plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, giant hyssop, baneberry, speckled alder, dogbane,</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>Manitoba Infrastructure acknowledges that the information about use of plants and plant harvesting by Peguis First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use plants and plant harvesting by Peguis First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Peguis First Nation.</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project</p>

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<p>Peguis First Nation reported that Big Buffalo Lake area and all areas to the east of the channels are important for resource gathering.</p> <p>Peguis members use the access road (Idylwild) for gathering Seneca root and berries</p> <p>Peguis First Nation indicated that the flooding of Lake St Martin has resulted in impacts to the harvest of medicinal herbs and plants.</p> <p>Peguis First Nation reported that the Dauphin River is an area for gathering medicines.</p> <p>Peguis First Nation reported that they rely on wetlands and the aquatic environment to harvest plants for ceremonial, medicinal and sustenance purposes.</p> <p>Peguis First Nation participates in gathering food, gathering medicines, firewood harvesting, commercial logging and forestry, rice harvesting.</p> <p>Peguis members identified the following plant species harvested near the Lake Winnipeg and its river system: berries, firewood, sweetgrass, sage, medicinal plants, <i>wekay</i> root (<i>weke</i>), mint, wild rice, special woods, mushrooms, mint.</p> <p><u>Issues and Concerns:</u></p> <p>Peguis First Nation expressed concern that traditional berry picking and medicine harvest areas may be affected by local flooding.</p> <p>Peguis First Nation expressed concern that access road construction has the potential to disturb vegetation.</p> <p>Peguis First Nation is concerned how will other vegetation be impacted if the wild rice is impacted with such a small fluctuation in water level.</p> <p>Peguis First Nation expressed concerns about the potential for changes in water flows to affect medicinal plants.</p> <p>Peguis First Nation stated that the health and sustainability of wetlands and their ecosystems are a prime concern, as the Project has the potential to increase fragmentation and the loss of upland, riparian and wetland habitats.</p> <p>The Project has the potential to increase fragmentation and the loss of upland, riparian, and wetland habitats.</p> <p>Peguis First Nation is concerned that Manitoba Transportation and Infrastructure has placed an emphasis is on SAR plant species. However, there are other species of plants that play an important role in the health and spirituality of Peguis First Nation. The impact of the Project on these species must be examined. Many of the plants grow and thrive in the Big Buffalo Lake and Wetland Complex. The EIS and Manitoba Transportation and Infrastructure's responses to IAAC IRs do</p>	<p>columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugle-weed, Canada mayflower, morel, yellow evening primrose, self-heal, pin cherry, sand cherry, plum, bracken (fiddlehead), wintergreen, bur oak, wild black currant, red currant, prairie rose, wild rose, cloud berry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, red clover, dwarf blueberry, bog blueberry, cranberry, logan berry, downy arrowwood, wild grapes.</p> <p><u>Locations:</u> Lake St. Martin is within the PDA. Dauphin River and Big Buffalo Lake are in the LAA. Lake St. Martin Access Road (formerly EOC Access Road) crosses the LAA. Idylwild Road is within the RAA. Spruce Woods Park is outside of the RAA.</p>	<p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>Project, so that areas and time periods of activity can be avoided.</p> <ul style="list-style-type: none"> As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides 	<p>updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7). As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Peguis First Nation to discuss the Environmental Management Plans. Meetings were held with Peguis First Nation on the following dates: May 12, 2021 and May 21, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Peguis First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and</p>

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<p>not adequately address the disruption to this complex of lakes and wetlands and the plants they nurture.</p> <p><u>Recommendations made by Peguis First Nation:</u></p> <ul style="list-style-type: none"> • Peguis First Nation recommends protection of plant picking and berry picking areas. • Peguis First Nation requests that Manitoba Transportation and Infrastructure assess the effect of the Project and mitigation effort on plants used for medicinal, subsistence, commercial, and spiritual usages. Peguis First Nation states that this has not been done so far in the impact assessment. <p><u>Sources:</u></p> <p>Golder Associates 2018</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.17</p> <p>Manitoba Infrastructure Indigenous Engagement Program NEB 2015</p> <p>Peguis First Nation 2022</p>			<p>pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> • The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><u>Residual Effects after Mitigation:</u> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE R, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Peguis First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Travel Routes				
<p><u>Existing Conditions:</u></p> <p>Peguis First Nation relies on existing roads in the area to access trails to game, including the Lake St. Martin access road and the road that runs west of it.</p> <p>Peguis First Nation members use the access road (Idylwild) for hunting and trapping by and trapping and medicine gathering.</p> <p>Peguis First Nation reported that Idylwild Road is used by Peguis First Nation to access the area and Sturgeon Bay.</p> <p>Peguis First Nation reported that people still travel from one end – one corner of Manitoba to the other in the southern part of the province hunting for food, gathering, smoking meat and fishing.</p> <p>Peguis First Nation reported that they participate in travel by boat and ice near Lake Winnipeg and its river system.</p> <p><u>Issues and Concerns:</u></p> <p>Peguis First Nation expressed concerns regarding Lake St. Martin Access Road Project including, the road's location, whether or not it will be gated, and potential for impacts to road maintenance.</p> <p>Peguis First Nation believes the upgrade of Idylwild Road and channel Project may affect access to the Mantagao Lake, change hydrology in the general area, affect the ability to trap and hunt. Peguis has not been consulted on these issues yet.</p> <p>Peguis First Nation is concerned that Idylwild Road will provide increased access to non-band member hunters.</p> <p>Peguis First Nation is concerned that no mention of the Fairford Trail could be found within the WSP HRIA report. The report is heavily redacted and not useful for determining the potential or proven location of the Fairford Trail.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.17</p> <p>Golder Associates 2018</p> <p>NEB 2015</p> <p>Peguis First Nation 2016</p> <p>Peguis First Nation 2022</p>	<p><u>Locations:</u> Portions of Lake Winnipeg is in the PDA. Sturgeon Bay is in the PDA. Lake St. Martin Access Road crosses the LAA. The Idylwild Road is within the RAA. Mantagao Lake is within the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>Manitoba Infrastructure acknowledges that the information about use of travel routes by Peguis First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of travel routes harvesting by Peguis First Nation to occur throughout the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. • As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Peguis First Nation to discuss the Environmental Management Plans. Meetings were held with Peguis First Nation on the following dates: May 12, 2021 and May 21, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology. In addition to exploring opportunities for Indigenous</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<p>Effects to the Fairford Trail are addressed in IAAC-119</p> <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>training and participation in monitoring program. No feedback has been received from Peguis First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions</p>

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				<p>with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Peguis First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p><u>Existing Conditions:</u></p> <p>Peguis First Nation reported that High Rock Lake, Mantagao Lake are important areas for the community.</p> <p>Peguis First Nation indicated that eagle feathers are gathered in an area near the proposed EOC access road.</p> <p>Peguis First Nation has Cultural camps and four sun dances in the area near Spruce Woods Provincial Park.</p> <p>Peguis First Nation reported that they visit the following cultural sites around Lake Winnipeg: ceremonial sites, gathering places, sweat lodges, meeting places, burial sites, birth places, death places, rock paintings, important sites, traditional burial sites, petroforms, battlegrounds and Sundance sites.</p> <p>Peguis First Nation reported that important sites around Lake Winnipeg and its river system include: wetlands and marshes, freshwater springs, boat launches, animal observations, nesting areas, water crossings, fish spawning areas, animal wintering sites, portages, calving sites, petroglyphs, and ancient sites.</p> <p><u>Issues and Concerns:</u></p> <p>Peguis First Nation raised concerns regarding the Project's effects on going flooding in the region from control structures and increases in water levels on Lake Winnipeg that may cause the erosion of lake shoreline that diminishes the value of camping.</p> <p>Peguis First Nation raised concerns about the effects of Project-related flooding on important sites, such as ceremonial sites and unmarked graves.</p> <p>Peguis First Nation reported that they rely on Lake Winnipeg and its waterways for sustenance and ceremonial purposes.</p>	<p><u>Locations:</u> Portions of Lake Winnipeg are within the PDA. The Lake St. Martin Access Road (formerly EOC Access Road) crosses the LAA. Mantagao Lake is within the RAA High Rock Lake is outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>Manitoba Infrastructure acknowledges that the information about use of habitation, cultural and spiritual sites and areas by Peguis First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of habitation, cultural and spiritual sites and areas by Peguis First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Peguis First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in</p>

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<p>Peguis First Nation is concerned that ceremony sites have been washed away.</p> <p>Peguis First Nation is concerned that regulating Lake St. Martin will cause erosion and potentially expose burial sites with high and low water levels.</p> <p>Peguis First Nation is concerned that the channels will destroy archeological sites.</p> <p>Peguis First Nation are concerned that if the water levels are changed in the long term (i.e., water levels are reduced over a long period of time) this may change the relative stability of cultural materials that are currently in a stable state due to long-term saturation. Faunal material (bones) and pre-contact pottery may undergo heightened expansion and contraction due to a combination of temperature and saturation changes which is likely to speed their degradation. Further, fluctuations in water levels may increase shoreline erosion for the same heating/cooling and saturation/drying cycles.</p> <p>Peguis First Nation stated that the reason that no heritage sites have been identified is not necessarily because of a lack of these sites but in part because there has been little or no archaeological research into these areas. Further, as the entire region has undergone climactic changes over the duration of human activity in the area (roughly 8-10,000 years), deeply buried deposits of human activity may sit currently undisturbed. The construction of the Project may disturb or destroy deeply buried deposits. Further testing may be required at these sites.</p> <p>Peguis First Nation is concerned that should a channel breach occur, the needed mitigation measures to prevent further overland flooding or erosion will necessarily include ground disturbance. Should there be any heritage, cultural, archaeological, or paleontological sites within the affected area, these sites will be destroyed in the mitigation of the channel breach.</p> <p><u>Recommendations made by Peguis First Nation:</u></p> <ul style="list-style-type: none"> Peguis First Nation recommends that Manitoba Transportation and Infrastructure consider a complete mitigative excavation of any encountered site within or directly adjacent to the PDA prior to a channel breach. <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.17</p>		<p>effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Apart from the two known cemeteries, no burials or unmarked graves have been identified or reported in the RAA. Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails, affecting Dauphin River First Nation and Peguis First Nation, and possibly Pinaymootang First Nation. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, effects on cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected. .</p>	<p>response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Peguis First Nation to discuss the Environmental Management Plans. Meetings were held with Peguis First Nation on the following dates: May 12, 2021 and May 21, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Peguis First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of</p>

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<p>Golder Associates 2018 NEB 2015 Peguis First Nation 2016 Peguis First Nation 2022</p>				<p>training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Peguis First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
<p>Pimicikamak Okimawin (Cross Lake Band of Indians) <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u> Pimicikamak Okimawin reported hunting and trapping beaver, muskrat, moose. Pimicikamak Okimawin also reported that the Eastern whip-poor-will, red-headed woodpecker and bat are species of importance. Pimicikamak Okimawin reported that all species are important parts of the ecosystems. It is culturally important that ecosystems that support the full range of native species are protected. In order to thrive over the long-term, species need large areas that are healthy, so that populations are sustainable over time and are able to survive severe weather events, disease incidents, fluctuations in populations due to predation and competition. Pimicikamak Okimawin reported that the aquatic habitat of mammals, including beaver and muskrat has been negatively affected over large areas of the watershed due to hydroelectric</p>	<p><u>Species Identified by Pimicikamak Okimawin:</u> beaver, muskrat, moose, Eastern whip-poor-will, red-headed woodpecker, bat. <u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> mule deer, white-tailed deer, elk, black bear, coyote, wolf, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use. Manitoba Infrastructure acknowledges that the information about hunting and trapping by Pimicikamak Okimawin presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Pimicikamak Okimawin to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project. For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component. During the construction and post-construction monitoring and follow-up studies will be conducted to</p>

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<p>development, wetland drainage, urban and agricultural development is of concern when a new Project is proposed that will further affect such habitat.</p> <p>Pimicikamak Okimawin reported that beaver is a species of cultural importance and is significant to the maintenance of biodiversity.</p> <p>Pimicikamak Okimawin reported that beavers are important to the creation and maintenance of small wetland habitats that are essential for many other species including moose.</p> <p>Pimicikamak Okimawin reported that existing flood control infrastructure and land use decisions in the watershed have had effects on water quality, wetlands and riparian habitats, wildlife, migratory birds, traditional land use.</p> <p><u>Issues and Concerns:</u></p> <p>Pimicikamak Okimawin has concerns that the channel construction will likely affect existing beaver habitat in the local area due to the direct footprint of the channels and changes in adjacent surface hydrology.</p> <p>Pimicikamak Okimawin has concerns that the Project will affect the Buffalo Creek ecosystem and degrade wildlife habitat.</p> <p>Pimicikamak Okimawin has concerns about the siting of new quarries and the expansion of seldom-used quarries and effects to wildlife habitat.</p> <p>Pimicikamak Okimawin is concerned about effects of regular mowing (for vegetation control) on species that may inhabit the grassy vegetation areas.</p> <p>Pimicikamak Okimawin is concerned about what measures are being taken to identify existing bat roosting sites, especially nurseries.</p> <p>Pimicikamak Okimawin is concerned about the cumulative effects of major infrastructure coupled with urban development and increasing human populations on wildlife over time. It is understood that declines in populations of moose for example, are probably related to a number of interacting complex factors including habitat change, disease, predation, increased access and hunting pressure.</p> <p>Pimicikamak Okimawin is concerned that the channel corridors the road access, and the continued regulation of lake levels within more narrow ranges than under natural conditions can all affect the quality of moose habitat over time.</p> <p>Pimicikamak Okimawin is reported that systems are interconnected and the habitat degradation is incremental. Pimicikamak Okimawin and members of other Indigenous groups travel the region widely and incremental degradation of habitat throughout these waterways is important.</p>	<p><u>Locations:</u> Buffalo Creek is within the PDA. Limestone Bay is outside of the RAA.</p>	<p>that occur within the RAA may be hunted or trapped by Pimicikamak Okimawin.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<ul style="list-style-type: none"> As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). This includes the selection of quarry sites. Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. 	<p>verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Pimicikamak Okimawin were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and</p>

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<p>Pimicikamak Okimawin is concerned about the impact of extended high-water periods on terrestrial species such as moose and aquatic species, such as beaver, muskrat, and otter.</p> <p>Pimicikamak Okimawin is concerned about the use of focal species as opposed to a species population approach to describe the pre-Project baseline.</p> <p>Pimicikamak Okimawin is concerned that the baseline data for wildlife is insufficient to support monitoring at the population level over time for most species.</p> <p>Pimicikamak Okimawin is concerned that by assessing habitat change rather than population data, many potential factors that impact population of wildlife may not be considered. Population data can also include predator-prey interactions and human hunting morality. The lack of population data makes it difficult to determine the effects of potential Project related factors such as poorly implemented access control, habitat loss, degradation of wetland vegetation food sources, and road mortality.</p> <p>Pimicikamak Okimawin is concerned that fluctuations in lake levels on Lake St. Martin, which is highly influenced by the Fairford water control structure, may create conditions that are not ideal for muskrat and beaver.</p> <p><u>Recommendations made by Pimicikamak Okimawin:</u></p> <ul style="list-style-type: none"> • Pimicikamak Okimawin requests Manitoba Infrastructure to provide information on the expected effects of regular mowing (for vegetation control) on species that may inhabit the grassy vegetation areas, and whether mowing practices will be planned to minimise disturbance to ground nesting birds, young mammals, etc Pimicikamak Okimawin requests Manitoba Infrastructure to clarify and provide more information about how the habitat of species at risk will be protected in the process of quarry site selection • Pimicikamak Okimawin requests Manitoba Infrastructure to provide more information on what measures are being taken to identify existing bat roosting sites. • Pimicikamak Okimawin requests Manitoba Infrastructure to discuss what is understood regarding the past and continued effects of all flood control works and land use practices affecting run-off in the broader watershed on the Interlake region. • Pimicikamak Okimawin recommends a detailed monitoring program to inform adaptive management and understand residual effects in regards to the complex responses of wildlife to changes in hydrology. 			<p>Part a) of the formal response to IAAC-122 explains how TLRU information was incorporated into the environmental assessment process for the Project.</p> <p>A fulsome list of culturally important wildlife species identified by Pimicikamak Okimawin through the Indigenous consultation and engagement program or a review of publicly available literature is available in IAAC-87 (Table 87-1).</p> <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Pimicikamak Okimawin may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

**LAKE MANITOBA AND LAKE ST. MARTIN OUTLET CHANNELS PROJECT
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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
May 31, 2022

Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<ul style="list-style-type: none"> Pimicikamak Okimawin recommends additional field studies be conducted before embarking on major projects to improve meaningful monitoring for Project effects. <p>In their written response to Manitoba Infrastructure regarding feedback on the EMPs (Pimicikamak Okimawin 2021), Pimicikamak Okimawin informed Manitoba Infrastructure that the written response submitted by Norway House Cree Nation (Luttermann and A.L. Ecologic. 2021a) also applies to Pimicikamak Okimawin. These comments have been incorporated above.</p> <p><u>Sources:</u></p> <p>Pimicikamak Okimawin 2020 Pimicikamak Okimawin 2021 Luttermann and A.L. Ecologic. 2021a A.L. Ecologic 2022</p>				
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u></p> <p>Pimicikamak Okimawin stated that the Project cannot be considered in isolation of LWR and the need for a more comprehensive and fair approach to licensing.</p> <p>Pimicikamak Okimawin has reported that the Project will affect local waterways and potentially impact the exercise of aboriginal and treaty rights of our membership.</p> <p>Pimicikamak Okimawin noted that changes to wetlands that have already occurred in Lake Manitoba may have reduced wetland function in relation to nutrient cycling.</p> <p>Pimicikamak Okimawin reported significant negative impacts from activities occurring upstream of Lake Winnipeg and Playgreen Lake.</p> <p>Pimicikamak Okimawin has reported concerns about water quality in Lake Winnipeg and has observed an increase in sediments, turbidity, algae blooms, and invasive species, such as zebra mussels.</p> <p>Pimicikamak Okimawin reported that lake whitefish have declined in the Nelson River water bodies (watershed) since flow manipulation began.</p> <p>Pimicikamak Okimawin reported that Limestone Bay is an important fish nursery and area of cultural significance.</p> <p>Pimicikamak Okimawin reported that the water channeled through the Project would then eventually flow into the north basin of Lake Winnipeg, Playgreen Lake, Kiskitto Lake, Kiskittogisu Lake, Playgreen Lake, and in the Nelson River.</p>	<p><u>Species Identified by Pimicikamak Okimawin:</u> pickerel (walleye), lake whitefish</p> <p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, common carp, northern pike, channel catfish, burbot, trout, perch, sauger,</p> <p><u>Locations:</u> Portions of Lake Winnipeg and Lake Manitoba are within the PDA. The Fairford River is in the PDA. Birch Creek and the Dauphin River are within the LAA. Limestone Bay and Playgreen Lake and Nelson River, Cross Lake, Kiskitto Lake, Assiniboine River, Kiskittogisu Lake and Sipiwesk Lake are outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by Pimicikamak Okimawin presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing Pimicikamak Okimawin to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Pimicikamak Okimawin.</p> <p>During a flood event, water flows across the land and can pick up sediments that contain chemicals such as fertilizers, pesticides and other contaminants. Under current conditions, this material flows through the Fairford River and the Dauphin River during floods. The Project will reduce the amount of overland flooding and is therefore expected to reduce the amount of contamination entering lakes.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and</p>	<p>Effects regarding sediments, debris and contamination are addressed in the SWMP, SMP and Debris Management Plan. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Sediments will be monitored, and visual inspections will be carried out as part of the SWMP and SMP and contingency mitigation measures such as silt fencing and materials to minimize bank erosion will be used, where necessary. The banks of the channel will be revegetated to reduce erosion. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. If required, at the start of operation, the water control structure gates can be gradually opened to control sediment levels, based on results of sediment monitoring. There will likely be increases in sediment concentrations at the end of the channel, but they will be managed to address water quality concerns through monitoring and flow adjustments. <p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required.</p>	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such as water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel</p>

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<p>Pimicikamak Okimawin reported that fish habitat has also been degraded in Lake Winnipeg and down the Nelson River due to flood control and hydroelectric works, and inputs of nutrients from agriculture and urban development.</p> <p>Pimicikamak Okimawin has observed continual changes in the quality of surface water in Lake Winnipeg, Playgreen Lake, and the Nelson River over the past several decades. These changes include increased turbidity in the water all year and especially during high water events; increased algae in water; erratic and inconsistent flow changes affecting bank and bottom erosion; and increased debris in the water during and following flood events. Water quality changes are accompanied by changes in the fish community composition, notably the decline of lake whitefish and increases in introduced species such as common carp.</p> <p>Pimicikamak Okimawin has increased turbidity in the Nelson River since Jenpeg was constructed and increased algae in the local waterways over time.</p> <p>Pimicikamak Okimawin reported that the watershed has a history of extended wet and dry periods. There is evidence of frequent high floods occurring in the Assiniboine River long before water level monitoring, and of the potential for spring and fall flooding occurring in the Lake St. Martin area.</p> <p>Pimicikamak Okimawin has observed the health of aquatic and riparian ecosystems is already compromised.</p> <p>Pimicikamak Okimawin reported that periodic high and low water levels help to rejuvenate certain species in wetlands.</p> <p>Pimicikamak Okimawin reported that excessive erosion in the Nelson River associated with the existing regulated flow regime is not only changing the landscape and quality of shoreline habitats, but also water quality and fish habitat.</p> <p>Pimicikamak Okimawin reported that the combination of changes in erosion process and water level alterations in fall and winter may be partially responsible for reductions in lake whitefish reproduction in Cross Lake.</p> <p>Pimicikamak Okimawin reported that fish communities have changes in downstream waterbodies since LWR was completed, including decimated populations of whitefish in Cross Lake.</p> <p><u>Issues and Concerns:</u></p> <p>Pimicikamak Okimawin expressed concern for effects to water levels and flows, sediment transport and erosion processes, water quality, and aquatic ecosystems.</p> <p>Pimicikamak Okimawin has expressed concerns that Limestone Bay, which provides important spawning habitat for pickerel and</p>		<p>monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. 	<p>routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Pimicikamak Okimawin were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba</p>

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<p>walleye, was not included in the scope of the RAA for the Project.</p> <p>Pimicikamak Okimawin expressed concern that contaminants in flood waters and potential reduction in water levels as a result of the Project could affect the health and/or existence of the Limestone Bay and the fish species that rely on it for important life processes.</p> <p>Pimicikamak Okimawin indicated that further loss or alteration of wetlands due to the Project may exacerbate the issue of nutrient cycling and result in further degradation of water quality and increase nutrient inputs to waterbodies important to the community for traditional use purposes.</p> <p>Pimicikamak Okimawin expressed concerns regarding potential for the Project to contribute to increased nutrient loading downstream of Lake Winnipeg.</p> <p>Pimicikamak Okimawin concerns regarding drainage of agricultural fields and contamination of waters, noting that will have negative effects on water quality.</p> <p>Pimicikamak Okimawin expressed concern about zebra mussels.</p> <p>Pimicikamak Okimawin is concerned that the channels will speed up the water.</p> <p>Pimicikamak Okimawin has reported that Lake Winnipeg sedimentation is reducing their water quality and are concerned that the Project will bring more sediment.</p> <p>Pimicikamak Okimawin has expressed concerns that water quality is deteriorating in part due to artificial channels speeding up flood flows and removing or by-passing natural wetlands that slow, settle and filter water.</p> <p>Pimicikamak Okimawin has serious concerns about the potential for effects of the Project that may extend into the north basin of Lake Winnipeg including Limestone Bay and down the Nelson River.</p> <p>Pimicikamak Okimawin is concerned that the placing of artificial reefs, while increasing habitat diversity, could degrade some existing spawning and foraging habitat in those areas that would not otherwise be directly affected by the outlet channel.</p> <p>Pimicikamak Okimawin is concerned that zebra mussels are already present in Lake Winnipeg, Playgreen Lake and moving into the Nelson River.</p> <p>Pimicikamak Okimawin is concerned about turbidity and nutrient levels related to changes in hydrology due to flood control and hydroelectric operations that have increased erosion rates and decreased the complexity of riparian wetlands; Pimicikamak Okimawin observed that sampling to</p>			<ul style="list-style-type: none"> Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. The majority of Project channel excavation and construction will be conducted “in the dry” and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and 	<p>Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Pimicikamak Okimawin may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>date is insufficient to indicate trends in water quality in Playgreen Lake and Cross Lake.</p> <p>Pimicikamak Okimawin is concerned about the effect of the channels and the operation of the flood control system as a whole on downstream water courses including the Nelson River.</p> <p>Pimicikamak Okimawin is concerned about whether these flood channels could have an effect on downstream water bodies in the north basin of Lake Winnipeg, Playgreen Lake and seasonal water level and flow patterns on the Nelson River.</p> <p>Pimicikamak Okimawin is concerned that flushing river flow more quickly through an artificial channel during extreme events can also have an influence on water quality parameters compared to over-land flow through vegetated lowlands.</p> <p>Pimicikamak Okimawin is concerned about any additional capacity in the flood control system that allows flood waters to be flushed more quickly north into the Nelson River, which can influence the spread of AIS.</p> <p>Pimicikamak Okimawin is concerned about the quality of fish habitat that the channels can provide, and whether Fairford and Dauphin Rivers will have adequate base flows in the channels during low flow periods.</p> <p>Pimicikamak Okimawin is concerned about the influence of the diversions from the Assiniboine River during high water years on flooding in the Interlake region, on water quality, fish and fish habitat, wetland and riparian habitats, debris transport, and land use are major concerns which should have been addressed in this EIS.</p> <p>Pimicikamak Okimawin is concerned about cumulative effects on the Nelson River and its lake expansions. Flood control works and hydroelectric production upstream is the increased variability in water levels and divergence from natural seasonal patterns that creates changes in wildlife habitat, traditional land use, and the cultural landscape.</p> <p>Pimicikamak Okimawin is concerned that changes in wetlands that have already occurred in Lake Manitoba may have reduced wetland function in relation to nutrient cycling. This may be the case not only in the Delta Marsh, but also along all riparian areas that have been affected by long-term water level regulation.</p> <p>Pimicikamak Okimawin is concerned that degradation of vegetation communities over large areas created by successive Projects, especially the cumulative effects on shoreline plant communities.</p> <p>Pimicikamak Okimawin is concerned about effects of water regulation on riparian wetlands in this region e.g., the degradation of the Delta Marsh.</p>			<p>overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	

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<p>Pimicikamak Okimawin is concerned about increases in water levels and increased in the magnitude and duration of floods.</p> <p>Pimicikamak Okimawin is concerned about adverse effects downstream in the outlet lakes to Lake Winnipeg, Cross Lake, and the narrow channels leading to Sipiwesk Lake, which are likely experiencing higher rates of erosion due to flow regulation.</p> <p>Pimicikamak Okimawin is concerned with the lack of addressing ecological and social context of effects downstream regions and the conclusion that no effects are expected on the current use of lands for traditional purposes, or the ability to exercise Indigenous and treaty rights relative to waterbodies.</p> <p>Pimicikamak Okimawin is concerned about the addition of more high-water periods caused by upstream regulation, perpetuating the unnatural hydrological patterns in the reaches downstream of the outflow of Lake Winnipeg that create more difficult conditions for travel and land use as well as uncertainty and stress. Natural flow is more predictable and natural variation and uncertainty are seen as more acceptable, as it is not created or controlled by other people.</p> <p>Pimicikamak Okimawin is concerned about small increases in peak water levels.</p> <p>Pimicikamak Okimawin is concerned about fish community composition changes and the factors impacting population recovery, such as erosion process changes in relation to increased outflow capacity of Lake Winnipeg and the altered seasonal flow patterns.</p> <p>Pimicikamak Okimawin expressed concern about whitefish mitigation in the Dauphin River.</p> <p>Pimicikamak Okimawin is concerned about fish spawning location in Watchorn Bay.</p> <p>Pimicikamak Okimawin is concerned about the unclear residual effects on fish populations.</p> <p>Pimicikamak Okimawin is concerned about the understanding of the duration and intensity of the impacts that have been suffered by Indigenous groups over time due to the existing artificial water control systems that would work in conjunction with the proposed Project.</p> <p><u>Recommendations made by Pimicikamak Okimawin:</u></p> <ul style="list-style-type: none"> • Pimicikamak Okimawin recommends that consultation involve commercial fishers association, trappers, Elders and youth. • Pimicikamak Okimawin recommends that consultation include dialog addressing specific issues such as methylmercury in fish that is a concern for many people associated with water control Projects. 				

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<ul style="list-style-type: none"> • Pimicikamak Okimawin recommends discussion on options for assessment and monitoring of the health of the aquatic and riparian habitats in Limestone Bay in relation to existing water level manipulation and additional modifications that could be caused by the Project. • Pimicikamak Okimawin recommends that Manitoba Infrastructure address downstream concerns in more detail in the context of further engagement and consultation processes with Pimicikamak Okimawin and other downstream Indigenous groups. • Pimicikamak Okimawin recommends that Manitoba Infrastructure provide results of modelling to estimate the effect on Playgreen Lake water levels with and without the LSMOC outlet channels. • Pimicikamak Okimawin recommends discussion on the levels of uncertainty related to understanding the potential contribution of nutrients and contaminants overflowing from the Assiniboine River into Lake Manitoba under natural flood conditions in the past. • Pimicikamak Okimawin recommends additional discussion on the extent to which the provision of base flows to the channels will ensure fish habitat of a quality and function that will offset the permanent alteration or destruction of fish habitat. • Pimicikamak Okimawin recommends discussion of the operation of the Portage Diversion, Assiniboine River water control works, and LWR with sufficient detail for the reader to understand how the flood control infrastructure works together under various scenarios, and what is understood about the effects on identified valued component's as well as valued component's further identified through engagement with Pimicikamak and others. Identify the areas of uncertainty that make such an assessment challenging. • Pimicikamak Okimawin recommends additional discussion of the potential effects of changes in wetlands due to the Project in combination with other flood control works throughout the region on phosphorus inputs to water bodies and eutrophication processes. • Pimicikamak Okimawin recommends that Manitoba Infrastructure explain how Indigenous engagement informed the definitions and thresholds for determining the significance of effects on plant species and communities. • Pimicikamak Okimawin recommends discussion on what is known or predicted about the possible long term effects on riparian wetland habitats of the operational policies designed to regulate Lake Manitoba within a narrower range than under natural conditions, explain data gaps. 				

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<ul style="list-style-type: none"> Pimicikamak Okimawin requests greater effort in decreasing the excessive nutrient inputs into waterbodies throughout the entire Lake Winnipeg basin. <p>In their written response to Manitoba Infrastructure regarding feedback on the EMPs (Pimicikamak Okimawin 2021), Pimicikamak Okimawin informed Manitoba Infrastructure that the written response submitted by Norway House Cree Nation (Luttermann and A.L. Ecologic. 2021a) also applies to Pimicikamak Okimawin. These comments have been incorporated above.</p> <p><u>Sources:</u></p> <p>Pimicikamak Okimawin 2020 Pimicikamak Okimawin 2021 Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.15 Luttermann and A.L. Ecologic. 2021a A.L. Ecologic 2022</p>				
Plants and Plant Harvesting				
<p><u>Issues and Concerns:</u></p> <p>Pimicikamak Okimawin is concerned about the control of invasive species.</p> <p>Pimicikamak Okimawin is concerned about the cumulative effects of LWR and upstream flow controls on Limestone Bay in the northwest basin of Lake Winnipeg and shoreline plant communities.</p> <p>Pimicikamak Okimawin expressed concerns about the risks associated with using herbicides near wetlands, including potential harm to amphibians, invertebrates and birds.</p> <p>Pimicikamak Okimawin is concerned about the Project's effects on medicines.</p> <p><u>Recommendations made by Pimicikamak Okimawin:</u></p> <ul style="list-style-type: none"> Pimicikamak Okimawin requests additional information on the herbicides that may be used on the Project Pimicikamak Okimawin requests information on how potential cumulative effects of herbicide use in the region on non-target species be assessed <p>In their written response to Manitoba Infrastructure regarding feedback on the EMPs (Pimicikamak Okimawin 2021), Pimicikamak Okimawin informed Manitoba Infrastructure that the written response submitted by Norway House Cree Nation (Luttermann and A.L. Ecologic. 2021a) also applies to</p>	<p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod,</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>Manitoba Infrastructure acknowledges that the information about use of plants and plant harvesting by Pimicikamak Okimawin presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use plants and plant harvesting by Pimicikamak Okimawin to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Pimicikamak Okimawin.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into</p>

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<p>Pimicikamak Okimawin. These comments have been incorporated above.</p> <p><u>Sources:</u></p> <p>Luttermann and A.L. Ecologic. 2021a</p> <p>Pimicikamak Okimawin 2021</p> <p>Manitoba Infrastructure Indigenous Engagement Program</p>	<p>meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> Portions of Lake Winnipeg are in the PDA. Limestone Bay is outside of the RAA.</p>	<p>and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<ul style="list-style-type: none"> The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). 	<p>the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Pimicikamak Okimawin were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring.</p>

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			<ul style="list-style-type: none"> The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Pimicikamak Okimawin may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p><u>Existing Conditions:</u> Pimicikamak Okimawin reported that navigation in open water seasons and in winter will be negatively affected by the Project. People must travel further to gather plants, hunt and fish.</p> <p><u>Issues and Concerns:</u> Pimicikamak Okimawin is concerned about road access to Norway House during high water and low water periods at the ferry crossing over the east channel of the Nelson River is a concern.</p> <p><u>Sources:</u> Pimicikamak Okimawin 2020</p>	<p><u>Locations:</u> The road to Norway House and Nelson River are outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>Manitoba Infrastructure acknowledges that the information about use of travel routes by Pimicikamak Okimawin presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of travel routes harvesting by Pimicikamak Okimawin to occur throughout the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory</p>

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		<p>to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting</p>	<p>describes specific measures to facilitate proper access during the construction of the Project.</p> <ul style="list-style-type: none"> The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated. (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology. In addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Pimicikamak Okimawin were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p>

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		<p>upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>		<p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Pimicikamak Okimawin may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Habitation, Cultural and Spiritual Sites				
<p><u>Existing Conditions:</u></p> <p>Pimicikamak Okimawin noted that Lake Winnipeg is connected to Nelson River, which is an area of cultural importance.</p> <p>Pimicikamak Okimawin reported that the removal and reburial of human remains is highly troubling for many people. If there are any remains that are not noticed or identified that will be disturbed. Even if there are no human remains are discovered ceremonies should be conducted to honour and acknowledge the disturbance to the land and the potential disturbance of human remains.</p> <p><u>Recommendations made by Pimicikamak Okimawin:</u></p> <ul style="list-style-type: none"> Pimicikamak Okimawin requests more information regarding the basic training that is provided for all site workers to recognize potential heritage resources and how to follow protocols. <p>In their written response to Manitoba Infrastructure regarding feedback on the EMPs (Pimicikamak Okimawin 2021), Pimicikamak Okimawin informed Manitoba Infrastructure that the written response submitted by Norway House Cree Nation (Luttermann and A.L. Ecologic. 2021a) also applies to Pimicikamak Okimawin. These comments have been incorporated above.</p> <p><u>Sources:</u></p> <p>Luttermann and A.L. Ecologic. 2021a</p> <p>Pimicikamak Okimawin 2021</p>	<p><u>Locations:</u> Nelson River is located outside of the RAA, while portions of Lake Winnipeg are located within the PDA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>Manitoba Infrastructure acknowledges that the information about use of habitation, cultural and spiritual sites and areas by Pimicikamak Okimawin presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of habitation, cultural and spiritual sites and areas by Pimicikamak Okimawin to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Pimicikamak Okimawin.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> The HRIA identified existing or potential sites and prescribes site specific mitigation. The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. The EPP identifies specific existing and potential sites and specific measures to protect them. The AMP controls access around the Project construction area. Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, effects on cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Pimicikamak Okimawin were provided to Manitoba Transportation and Infrastructure in April 2021.</p>

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		<p>during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>		<p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p>

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<p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Pimicikamak Okimawin may bring forward and incorporate into regulatory reporting and Project planning as appropriate</p>				
<p>Pinaymootang First Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u></p> <p>Pinaymootang First Nation reported harvesting fisher, marten, muskrat, otter, rabbit, short-tailed weasel, long-tailed weasel, moose, elk, mule deer, white-tailed deer, geese, duck, partridge, grouse, caribou, wolf, coyote, red fox, lynx, squirrel, Canada goose, ruffed grouse, sharp-tailed grouse, partridge, prairie chicken</p> <p>Pinaymootang First Nation reported that moose and white-tailed deer are important species for subsistence.</p> <p>Pinaymootang First Nation reported that yellow rail, least bittern, snapping turtle, eastern whip-poor-will, and red-headed woodpecker are significant species.</p> <p>Pinaymootang First Nation hunt in the RAA and LAA.</p> <p>Pinaymootang First Nation reported that high water levels have killed off willows, which are a winter food source for moose.</p> <p>Pinaymootang First Nation reported trapping in the RAA for species including fisher, marten, muskrat, otter, rabbit, and weasel.</p> <p>Pinaymootang First Nation reported a decrease in the population of moose, deer and birds, including ducks.</p> <p>Pinaymootang First Nation reported a reluctance to eat wild foods because of contamination and concerns for their health.</p> <p>Pinaymootang First Nation reported hunting and trapping in the preferred locations throughout their territory, but have been affected by a suite of cumulative effects, including impacts from flooding events and fluctuating water levels as well as government regulations, private land designations, and other access issues. Pinaymootang First Nation reported that hunting and trapping are important activities. Pinaymootang First Nation</p>	<p><u>Species Identified by Pinaymootang First Nation:</u> fisher, marten, muskrat, otter, rabbit, short-tailed weasel, long-tailed weasel, moose, elk, mule deer, white-tailed deer, geese, duck, partridge, grouse, caribou, wolf, coyote, red fox, lynx, squirrel, Canada goose, ruffed grouse, sharp-tailed grouse, prairie chicken, yellow rail, least bittern, snapping turtle, eastern whip-poor-will, red-headed woodpecker.</p> <p><u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> black bear, beaver, wolverine, lynx, mink, mallard, bald eagle.</p> <p><u>Locations:</u> Lake St. Martin is in the PDA. The Narrows are within the PDA. Portions of Lake Pineimuta are in the LAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about hunting and trapping by Pinaymootang First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Pinaymootang First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Pinaymootang First Nation.</p> <p>During a flood event, water flows across the land and can pick up sediments that contain chemicals such as fertilizers, pesticides and other contaminants. Under current conditions, this material flows through the Fairford River and the Dauphin River during floods. The Project will reduce the amount of overland flooding and is therefore expected to reduce the amount of contamination entering lakes.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly,</p>	<p>Effects regarding sediments and associated water quality contamination are considered in the SWMP, SMP and Debris Management Plan. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Measures will be implemented for materials handling, waste handling and disposal and fuel handling and storage in designated areas located a minimum of 100 m from waterbodies and with secondary containment. Any storage and use of chemicals is strictly regulated and application of chemicals requires training and a permit. Sediments will be monitored, and visual inspections will be carried out as part of the SWMP and SMP and contingency mitigation measures such as silt fencing and materials to minimize bank erosion will be used, where necessary. The banks of the channel will be revegetated to reduce erosion. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. If required, at the start of operation, the water control structure gates can be gradually opened to control sediment levels, based on results of sediment monitoring. There will likely be increases in sediment concentrations at the end of the channel, but they will be managed to address water quality concerns through monitoring and flow adjustments. 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>A sharp-tailed grouse lek survey will be completed in 2022 identify any leks (i.e., traditional mating sites) that have the potential to interact with the Project .</p>

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<p>described hunting and trapping a variety of mammals and birds, in the Project area and beyond.</p> <p>Pinaymootang First Nation reported they cannot trap because there is too little or too much water.</p> <p><u>Issues and Concerns:</u></p> <p>Pinaymootang First Nation is concerned with impacts to hunting and wildlife.</p> <p>Pinaymootang First Nation expressed concern regarding food security and concerns of contamination,</p> <p>Pinaymootang First Nation expressed concerns regarding trapping due fewer animals to trap, participation in the workforce, and low fur prices.</p> <p>Pinaymootang First Nation raised concerns regarding the Projects on going flooding in the region from control structures and increases in water levels on Lake Winnipeg that may cause the erosion of lake shoreline that diminishes the value of hunting.</p> <p>Pinaymootang First Nation expressed concern that local flooding may interfere with local hunting and trapping.</p> <p>Pinaymootang First Nation reported fluctuation in Lake Pineimuta is impacting muskrat trapping on Lake Pineimuta and surrounding wetlands. Pinaymootang First Nation expressed concerns about adverse impacts on wildlife from contaminated water.</p> <p>Pinaymootang First Nation expressed concern that access road construction has the potential to disturb wildlife.</p> <p>Pinaymootang First Nation expressed concern that the access road will bring hunting competition from non-Indigenous hunters.</p> <p>Pinaymootang First Nation is concerned that traditional hunting grounds will be exposed to increased traffic as a result of the Project.</p> <p>Pinaymootang First Nation is concerned that the existing roadway alignment is adjacent to important hunting grounds and other environmentally sensitive areas that could be adversely affected.</p> <p>Pinaymootang First Nation is concerned that the diversion of groundwater to surface water could cause direct impacts to the local fauna that is adapted to a different type of water chemistry. This could lead to a reduction in overall aquatic productivity (fish, insects, plants).</p> <p>Pinaymootang First Nation is concerned that if dewatering dries out the fens and minor lakes adjacent to the ROW, it will directly affect the aquatic and terrestrial ecosystems that they support. Pinaymootang First Nation is concerned about the</p>		<p>through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<ul style="list-style-type: none"> Clearing will not occur between April 1 and August 31 to avoid disturbance to nesting birds and other wildlife (Chapter 8, Section 8.3). Terrestrial buffers, as identified by the Manitoba Conservation Data Centre's Recommended Development Setback Distances from Birds and/or MSDs Forest Management Guidelines for Terrestrial Buffers will be adhered to for all applicable sites (Chapter 8, Section 8.3; PERS, Section 2.9.1). If construction is scheduled to occur within the nesting period for owls and raptors (March 1 to August 31), a nest survey may be conducted by a qualified wildlife biologist if warranted. In the event an active nest is found, it will be subject to site-specific mitigation measures (i.e., clearly marked protective buffer around the nest and/or non-intrusive monitoring) (Chapter 8, Section 8.3). <p>The Red-headed Woodpecker and Eastern Whip-poor-will Habitat Mitigation Plans are not intended to be offset or compensation plans, but instead are species-specific habitat enhancement plans. The Red-headed Woodpecker Habitat Mitigation Plan includes measures to enhance the edges of the LMOC with shrubs and snags that will benefit not only red-headed woodpecker, but also other wildlife including species of cultural importance such as grouse, snowshoe hair, and red fox. Along the LSMOC, the Eastern Whip-poor-will Habitat Mitigation Plan describes how shrub and tree cover plantings will be added to the edges of the ROW where upland habitat (i.e., forest) exists. These plantings will provide habitat for eastern whip-poor-will and other animals including birds and furbearers.</p> <p>Manitoba Transportation and Infrastructure will comply with the Migratory Birds Convention Act, 1994 and follow prohibitions, including, but not limited to, avoiding the deposition of harmful substances in wetlands frequented by migratory birds (see IAAC-50).</p> <p>Additionally, BMPs described in the PERs and CEMP will be applied to all Project components and will include plans for hazardous material transportation and management, emergency response (i.e., spills), dust control, working in or near water, petroleum storage and equipment fueling and servicing, and erosion and sedimentation control. The PERs and the draft</p>	<p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Pinaymootang First Nation to discuss the Environmental Management Plans. A meeting was held with Pinaymootang First Nation on the following date: January 26, 2021.. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Feedback was received from Pinaymootang First Nation in May of 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As</p>

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<p>effects of sustained reductions in water levels, especially on the north basin of Lake St. Martin, on wildlife and migratory birds that rely upon shoreline habitats, including interactions with predation or traditional land use.</p> <p>Pinaymootang First Nation is concerned about the 1 km LAA, as it does not capture the sone of influence for species of importance to Indigenous groups, such as moose.</p> <p>Pinaymootang First Nation is concerned about the lack of the required SAR presence/absence surveys.</p> <p>Pinaymootang First Nation is concerned about if offsetting and compensation measures will be applied in relation to impacts to all wildlife, including SAR.</p> <p>Pinaymootang First Nation is concerned about adverse effects to migratory birds impacted by the Project's reduction of lake water levels in Lake St. Martin which will results in changes to flow volumes and velocities through the Narrows and Dauphin River which support local movement and seasonal habitat of migratory birds as well as changes to shoreline habitat and fish and fish habitat that supports the seasonal habitat of migratory birds.</p> <p>Pinaymootang First Nation is concerned that the Project Transmission line will impact nocturnal migrants and bird with awkward flight characteristics, known to be vulnerable to collisions with transmission lines.</p> <p>Pinaymootang First Nation is concerned about the lack of information about critical lifecycle periods for yellow rail, least bittern, snapping turtle, eastern whip-poor-will, and red-headed woodpecker.</p> <p>Pinaymootang First Nation is concerned about the use and management of road salt.</p> <p>Pinaymootang First Nation is concerned about reduced habitat use and survival of migratory birds resulting from the release of harmful substances.</p> <p>Pinaymootange First Nation expressed concern about the likelihood of salvaged/ relocated or retained snags falling over, impacting the effectiveness of red-headed woodpecker mitigation measures.</p> <p>Pinaymootang First Nation expressed concerns about the mortality of culturally important large mammal and furbearers that den or burrow and are vulnerable to Project vegetation clearing and ground disturbance.</p> <p>Pinaymootang First Nation expressed concern about the timing of the Project changes and seasonality of habitat use by migratory birds and SAR.</p> <p>Pinaymootang First Nation is concerned that the culturally important species have not been adequately identified.</p>			<p>Dust Control Plan (see Attachment 1 – Updated Environmental Management Plans) stipulate dust control application requirements and the PERs and Manitoba Environmental Accident Reporting Regulation stipulate reporting requirements and response measures for hydrocarbons and other products (e.g., see PER 2.5.2; Attachment 1 – Updated Environmental Management Plans). The road will be operated and maintained in a manner consistent with Manitoba Transportation and Infrastructure's practice for the current PR 239 and other public roads throughout the Province of Manitoba. Based on the mitigation measures and BMPs described above, and the limited interaction of the road realignment with wetland habitat, potential effects can be avoided or reduced.</p> <p>The Red-headed Woodpecker Habitat Mitigation Plan contains a nest structure survey that will be used to assess the effectiveness of these mitigation measures by monitoring the structural integrity of salvaged decadent trees and artificial nest boxes.</p> <p>The distribution line is expected to be constructed in accordance with Manitoba Hydro's standard industry specifications for distribution lines (see IAAC-47).</p> <p>Part a) of the formal response to IAAC-122 explains how TLRU information was incorporated into the environmental assessment process for the Project.</p> <p>A fulsome list of culturally important wildlife species identified by Pinaymootang First Nation through the Indigenous consultation and engagement program or a review of publicly available literature is available in IAAC-87 (Table 87-1).</p> <p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. 	<p>an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Pinaymootang First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>Pinaymootang First Nation is concerned about what impacts of the Project will have on Pinaymootang First Nation's ability to hunt specific species, e.g., moose as well as the Project consideration of effects on preferred species for trapping such as muskrats.</p> <p>Pinaymootang First Nation is concerned about whether and how Indigenous Knowledge was incorporated into understanding the impact pathways related to wildlife species or habitat.</p> <p>Pinaymootang First Nation is concerned that species uniquely susceptible to morality effects have not been identified by the Proponent.</p> <p>Pinaymootang First Nation is concerned about the implication of Project activities on beavers.</p> <p>Pinaymootang First Nation is concerned about the direct and indirect impacts of the Project on wildlife from habitat fragmentation.</p> <p>Pinaymootang First Nation is concerned about wildlife being willing or able to cross the channel as well as the residual effects and significance of the effects on all culturally important species movement,</p> <p>Pinaymootang First Nation is concerned about the effects of changes to habitat on non-migratory birds, particularly species of cultural importance.</p> <p>Pinaymootang First Nation is concerned that Manitoba Infrastructure does not define Pinaymootang First Nation's Section 35 rights nor identify how the Project may impact these rights.</p> <p><u>Recommendations made by Pinaymootang First Nation:</u></p> <ul style="list-style-type: none"> Pinaymootang First Nation recommends opportunities for Pinaymootang First Nation to carry out monitoring of wildlife health in Pinaymootang territory so that members can both trust monitoring results and have an informed role in determining adaptive measures Pinaymootang First Nation would like to work with Manitoba Infrastructure to ensure a meaningful assessment of effects is undertaken and adequate mitigation and accommodation measures are adopted that will ensure the protection of Pinaymootang First Nation rights, traditional use, and interests. Pinaymootang First Nation recommends that Manitoba Infrastructure adopt a LAA that is more conservative than 1 km. Pinaymootang First Nation recommends that measures to protect non-SAR mammals from Project vegetation clearing and ground disturbance by conducting pre- 			<ul style="list-style-type: none"> As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. 	

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<p>construction den searched and implementing species-specific avoidance windows and/or set back distances is implemented.</p> <p>Manitoba Infrastructure provided a summary of secondary sources used in regulatory reporting for the Project to Pinaymootang First Nation for review and comment. Pinaymootang First Nation has informed Manitoba Infrastructure they do not consider the secondary sources to fully reflect Pinaymootang First Nation's perspectives, knowledge and values and have submitted a consultation report to Manitoba Infrastructure.</p> <p><u>Sources:</u></p> <p>Golder Associates 2018</p> <p>Manitoba Infrastructure Indigenous Engagement Program</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.18</p> <p>PFN 2018</p> <p>PFN 2020</p> <p>PFN, SBOFN and SFN 2021</p> <p>PFN 2021</p> <p>PFN 2021-05-06</p> <p>PFN 2022a</p> <p>PFN 2022b</p> <p>PFN 2022c</p> <p>PFN n.d.</p>			<p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u></p> <p>Pinaymootang First Nation reported that subsistence and recreational fishing occur in the Lake St. Martin, Dauphin River, Mantagao River, and Sturgeon Bay year-round.</p> <p>Pinaymootang First Nation reported fishing pickerel in Lake Manitoba.</p> <p>Pinaymootang First Nation has noted that surface waters have been altered from their natural courses leading to an increase in the incidence of flooding.</p> <p>Pinaymootang First Nation indicated that degradation in surface water quality has impaired historic surface drinking water drinking sources and may be affecting fish health.</p>	<p><u>Species Identified by Pinaymootang First Nation:</u> whitefish, northern pike, carp, walleye (pickerel) and yellow perch.</p> <p><u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, common carp, channel catfish, burbot, trout, sauger.</p> <p><u>Locations:</u> Portions of Lake Winnipeg and Lake Manitoba are located within the PDA. Sturgeon Bay and Watchorn Bay is located within the PDA. Lake St. Martin is within the PDA. The Narrows are</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by Pinaymootang First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Pinaymootang First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within</p>	<p>Effects regarding sediments and water quality contamination were considered in the SWMP, PERs and SMP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Measures will be implemented for materials handling, waste handling and disposal and fuel handling and storage in designated areas located a minimum of 100 m from waterbodies and with secondary containment. Any storage and use of chemicals is strictly regulated and application of chemicals requires training and a permit. 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations</p>

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<p>Pinaymootang First Nation commented on reluctance to drink from various natural water sources, including Lake Winnipeg, due to contamination</p> <p>Pinaymootang First Nation reported a decline in pickerel and whitefish in Lake St. Martin.</p> <p>Pinaymootang First Nation reported that water fluctuations are affecting commercial fishers.</p> <p>Pinaymootang First Nation reported that changing currents affects ice stability and the safety of fishers.</p> <p>Pinaymootang First Nation reported that Watchorn Bay is used as a migratory staging area for Watchorn Creek and Mercer Creek which both also support a commercial fishery.</p> <p>Pinaymootang First Nation reported that tributaries are important for spring spawning and summer rearing, nearshore wetlands are important spawning areas for northern pike, carp, walleye (pickerel) and yellow perch.</p> <p>Pinaymootang First Nation that increases in silt load into Sturgeon Bay as a result of the operation of the EOC covered the coarse substrates at the mouth of the Dauphin River with silt and clay.</p> <p>Pinaymootang First Nation reported that land use by Pinaymootang First Nation has been affected by hydro-projects and flood management, which has shaped and changed the landscape since 1961.</p> <p>Pinaymootang First Nation has commented on the adverse impacts to waterfront lands, shoreline habitat, reserve lands, fishing and wildlife that have been affected by the actions of Manitoba's flood infrastructure when diverting flood waters away from Winnipeg. Pinaymootang First Nation has reported experiencing tremendous ecological engineering to Lake St. Martin and the surrounding lands in the past 50 years. During this time the area has acted as an "overflow" water reservoir for passing flood waters from the Assiniboine River system into Lake Winnipeg. Pinaymootang First Nation reported that current conditions for fish and fish habitat in Lake St. Martin and Sturgeon Bay is already highly impacted.</p> <p>Pinaymootang First Nation has reported that current baseline conditions, caused by the excessive use of existing flood management infrastructure in previous years, has had adverse effects on the water quality of Lake St. Martin and Dauphin River.</p> <p>Pinaymootang First Nation reported that during the 2011 and 2014 floods, fishers reported that fish has moved off traditional habitat and catch per unit effort was much greater. Fishers also reported that spawning beds were mantled with debris and sediment, which reduced the spawning success and resulted in decreased whitefish and pickerel populations.</p>	<p>within the PDA. Dauphin River is located within the LAA. Watchorn Provincial Park and Watchorn Creek are in the LAA. Mercer Creek is in the LAA. Mantagao River is located within the RAA.</p>	<p>the RAA may be harvested by Pinaymootang First Nation.</p> <p>During a flood event, water flows across the land and can pick up sediments that contain chemicals such as fertilizers, pesticides and other contaminants. Under current conditions, this material flows through the Fairford River and the Dauphin River during floods. The Project will reduce the amount of overland flooding and is therefore expected to reduce the amount of contamination entering Lake Winnipeg.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p>	<ul style="list-style-type: none"> Sediments will be monitored, and visual inspections will be carried out as part of the SWMP and SMP and contingency mitigation measures such as silt fencing and materials to minimize bank erosion will be used, where necessary. The banks of the channel will be revegetated to reduce erosion. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. If required, at the start of operation, the water control structure gates can be gradually opened to control sediment levels, based on results of sediment monitoring. There will likely be increases in sediment concentrations at the end of the channel, but they will be managed to address water quality concerns through monitoring and flow adjustments. <p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). 	<p>increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Pinaymootang First Nation to discuss the Environmental Management Plans. A meeting was held with Pinaymootang First Nation on the following date: January 26, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring</p>

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<p><u>Issues and Concerns:</u></p> <p>Pinaymootang First Nation expressed concern regarding surface water.</p> <p>Pinaymootang First Nation are concern about the potential spread of zebra mussels.</p> <p>Pinaymootang First Nation raised concerns regarding changes in regional flows which will affect ongoing flooding and shoreline erosion and degrading water quality and algal issues.</p> <p>Pinaymootang First Nation raised concerns regarding the Projects on going flooding in the region from control structures and increases in water levels on Lake Winnipeg that may cause the erosion of lake shoreline that diminishes the value of fishing.</p> <p>Pinaymootang First Nation expressed concerns regarding water quality.</p> <p>Pinaymootang First Nation documented concerns regarding fluctuating water levels, water quality degradation, the mobilization of pollutants and algal blooms in the RAA which limit the safe use of surface water.</p> <p>Pinaymootang First Nation identified concerns regarding runoff from farm fields causing impacts to water quality in the RAA.</p> <p>Pinaymootang First Nation expressed concern that aquatic ecosystem health in local waterbodies and waterways would be altered by the Project.</p> <p>Pinaymootang First Nation expressed concern about fish stranding and fish spawning areas.</p> <p>Pinaymootang First Nation expressed concerns regarding drinking water quality.</p> <p>Pinaymootang First Nation expressed concern regarding potential effects on commercial fisheries</p> <p>Pinaymootang First Nation expressed concern about silt and noted that silt from the Lake Winnipeg channel has destroyed fish habitat and spawning grounds.</p> <p>Pinaymootang First Nation expressed concerns about the potential for changes in water flows to affect fish spawning areas and medicinal plants.</p> <p>Pinaymootang First Nation Expressed concerns about fish community compositions and expressed concerns about increased abundance of invasive species</p> <p>Pinaymootang First Nation expressed concern that the fish are no longer safe to eat.</p>		<p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<ul style="list-style-type: none"> • Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. • Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted "in the dry" and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. 	<p>program. Feedback was received from Pinaymootang First Nation in May of 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p>

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<p>Pinaymootang First Nation expressed concern that the Project could lead to a reduction in overall aquatic productivity (fish, insects, plants).</p> <p>Pinaymootang First Nation expressed concern that the Project will affect surface water quality.</p> <p>Pinaymootang First Nation expressed concern that an increase in sediment transport and subsequent deposition will result in a decrease of substrate diversity which would lead to a corresponding decrease in benthic diversity and subsequently use by fish,</p> <p>Pinaymootang First Nation expressed concerned regarding the effect of seiche setup on the level of flooding.</p> <p>Pinaymootang First Nation expressed concern regarding how negatively affected wetlands and other surface water bodies flanking the LMOC and LSMOC alignments will be rehabilitated and sustained, if at all.</p> <p>Pinaymootang First Nation expressed concerned that the GUDI (Drinking Water Quality) at the proposed LMOC is very low due to high artesian pressure.</p> <p>Pinaymootang First Nation expressed concerned with the development of a flared intake bay bounded by rock jetties migratory staging movements may be restricted somewhat and by changing the currents in the area could diminish fish passage into these creeks in the future.</p> <p>Pinaymootang First Nation expressed concerned that riparian areas particularly along the shoreline of Birch Bay in Lake St. Martin would be at risk of flooding during any future flood stage where the channels are fully functioning. This would occur during the spring freshet period when several fish species are likely to be spawning in this area.</p> <p>Pinaymootang First Nation expressed concern that the LMOC intake will alter the lateral movement of fish and fish larvae in Watchorn Bay, Watchorn and Mercer Creeks. Similarly, the outlet into Birch Bay may affect use and lateral movement within the Bay for fish and fish larvae during both the construction and operational phases of the Project.</p> <p>Pinaymootang First Nation expressed concern that sediment will build up and be transported on and with the next flood event. This has the potential to infill any rocky or coarse gravel substrates in the near vicinity to both outlets. Such substrates are used for spawning by Whitefish and other species. These diverse substrates also typically support a high diversity of macrobenthic fauna.</p> <p>Pinaymootang First Nation reported that Birch Bay supports dense aquatic vegetation on west and east shores. Since these are likely spawning and rearing areas for fish like northern pike changes to the diversity of substrate in the bay from increases</p>			<ul style="list-style-type: none"> Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route 	<p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Pinaymootang First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>in sediment load into the bay as a result of LMOC construction and operation could affect these uses.</p> <p>Pinaymootang First Nation expressed concern that sediment production causing negative impacts on fish use of the area and a decrease in secondary productivity and diversity and would likely have some effects on migratory movement of fish into the Dauphin River.</p> <p>Pinaymootang First Nation expressed concern that fens and minor lakes along the preferred route could be dewatered, which would affect the ability of the fens and the shallow lakes to support a viable and diverse ecosystem.</p> <p>Pinaymootang First Nation expressed concern that plant-based traditional and cultural activities will be directly affected by adverse effects to water.</p> <p>Pinaymootang First Nation is concerned regarding how negatively affected wetlands and other surface water bodies flanking the LMOC and LSMOC alignments will be rehabilitated and sustained, if at all.</p> <p>Pinaymootang First Nation is concerned about how the Project will impact water levels, which are already vulnerable given existing cumulative effects on water quality.</p> <p>Pinaymootang First Nation is concerned about aquatic habitat and aquatic life health, fish, fish habitat, and fishing quality and quantity.</p> <p>Pinaymootang First Nation is concerned about the lake St. Martin water level estimates and the fact that it is a two-basin lake.</p> <p>Pinaymootang First Nation is concerned that the assessment of changes to Project design on fish and fish habitat is incomplete and do not reflect changes in hydraulic modelling and revisions to the Project design.</p> <p>Pinaymootang First Nation is concerned that changes to fish and fish habitat during Project operation does not consider changes in sedimentation and velocity.</p> <p>Pinaymootang First Nation is concerned about the interaction between the Project, effects on fish and fish habitat, and Indigenous fishing during Project operations and the underestimation of adverse effects on Indigenous socio-economic conditions, culture, and the current use of lands and resources for traditional purposes.</p> <p>Pinaymootang First Nation is concerned about the lack of monitoring for AIS given the impacts of AIS to freshwater habitat, including native fish communities, and associated fishing rights.</p>			<p>comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered.</p> <ul style="list-style-type: none"> Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p>Measures to avoid or reduce effects to commercial fishing are identified in the CEMP and include:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will engage with commercial fish harvesters, anglers, local resource users, and MSD Regional Officials to address potential conflict, disturbance, or access restrictions to fishing/harvesting areas in the PDA and LAA, and availability of fish resources. <p>Effects to surface water quality monitoring are addressed primarily in IAAC-80.</p> <p>Effects to fishing are addressed in IAAC-103 and IAAC -105.</p> <p>Surface water quality and nutrient loading are discussed in IAAC-13, IAAC-14, IAAC-65, IAAC-84 and IAAC-107</p> <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Pinaymootang First Nation is concerned that the effects of changes in hydraulic flows through the Narrows and Dauphin River on fish and fish habitat or fish lifecycles has not been considered.</p> <p>Pinaymootang First Nation is concerned that changing the water drainage of the Birch Creek watershed and Buffalo Creek drainage base represents a significant adverse impact on how Pinaymootang First Nation has used these lands and how it plans to use these lands.</p> <p>Pinaymootang First Nation is concerned that the Project designed to solve flood issues will reverse the natural flood control systems that already exist and permanently alter Indigenous land use of the area.</p> <p>Pinaymootang First Nation is concerned about the omission of any parameters specific to Indigenous interests related to surface water and ground water.</p> <p>Pinaymootang First Nation is concerned that selected location of water monitoring and sampling do not mention areas of high land use or of high importance to Indigenous users in the PDA or LAA as well as the lack of discussion of traditional knowledge and how it informs the monitoring programs.</p> <p>Pinaymootang First Nation is concerned about the effects to traditional uses that could result from local effects caused by dewatering.</p> <p>Pinaymootang First Nation is concerned about Project impacts causing changes in water quality, water quantity/flow patterns, fish habitat, and fish community composition, such as declines in whitefish and increases in introduced species, and how these changes will adversely affect fish availability and distribution and how these will negatively impact subsistence and commercial fishing practices.</p> <p>Pinaymootang First Nation is concerned about an underestimation by the Project on the impacts to Indigenous fishing during Project operations and the potential adverse effects on Indigenous socio-economic conditions, culture, and the current use of lands and resources for traditional purposes.</p> <p>Pinaymootang First Nation is concerned that the Project will contribute to the spread, colonization, and introduction of AIS to waterbodies in the LAA, Lake St. Martin, Birch Creek, and the Buffalo Creek Watershed.</p> <p>Pinaymootang First Nation is concerned about the potential interactions between AIS and Project infrastructure which may support colonization by zebra mussels and Prussian carp.</p> <p>Pinaymootang First Nation is concerned about localized changes in the distribution of sediments within traditional fishing grounds.</p>				

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Pinaymootang First Nation is concerned about the surface water quality monitoring program and its ability to identify localized changes to water quality, and sediment loads in traditional fishing grounds, impacts to spawning beds, and interactions with fishing gear.</p> <p>Pinaymootang First Nation is concerned about mitigation measures for potential impacts to walleye abundance or condition associated with operation of the Project as well as the meaningful participation of Indigenous groups in the monitoring and input in adaptive management processes for walleye.</p> <p>Pinaymootang First Nation is concerned about the nature and scale of the impact to fish and fisheries and how the overall impacts of the Project will affect Indigenous values and interests.</p> <p>Pinaymootang First Nation is concerned about how changes to local drainage and water flow will affect water quality for supporting a viable rights-based and commercial fishery, as well as supporting other social and cultural uses of Lake St. Martin and Sturgeon Bay in Lake Winnipeg.</p> <p>Pinaymootang First Nation is concerned that Manitoba Infrastructure does not define Pinaymootang First Nation's Section 35 rights nor identify how the Project may impact these rights.</p> <p>Pinaymootang First Nation is concerned about nutrient loading and additions into affected water bodies, which is directly relevant to the ecological balance in lakes and the health of fish populations in Lake St. Martin and Lake Winnipeg.</p> <p>Pinaymootang First Nation is concerned that whitefish emerging from the spawning grounds in Lake St. Martin will be carried into the LSMOC and directly into Lake Winnipeg rather than being able to use their traditional migratory route through Dauphin River to the lake because of the change in flow path.</p> <p>Pinaymootang First Nation is concerned that larvae that have not emerged from the substrates in the narrows when flood flow occurred will be subject to scouring because of the predicted increase in flow velocities through the narrows during flooding and channel operations.</p> <p>Pinaymootang First Nation is concerned about Project impacts on migratory patterns of fish species that inhabit and spawn in Lake St. Martin.</p> <p>Pinaymootang First Nation is concerned about fish stranding and winter fish kill.</p> <p>Pinaymootang First Nation is concerned about sediment transport and erosion, the reduction of lake levels in the north basin of Lake st. Martin and potential whitefish migratory disruption through the Dauphin River, and heightened differential of lake levels between the south and north Lake St.</p>				

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<p>Martin during channel operations as a result of the Narrows serving as a hydraulic control.</p> <p>Pinaymootang First Nation is concerned about flow velocity and turbidity changes at the Narrows and impacts to whitefish spawning habitat as well as the potential loss of fish larvae to the LSMOC right after hatching.</p> <p>Pinaymootang First Nation is concerned about the level of chlorophyll α concentration and its impact to waterbodies and the overall health of fish and fish habitat within the LAA.</p> <p>Pinaymootang First Nation is concerned about the reliability of information used to assess fish and fish habitat.</p> <p>Pinaymootang First Nation is concerned about nearshore habitats, which are used as spawning habitat, rearing and feeding habitat by various fish species as the Project will alter lake levels in Lake St. Martin as part of its normal operations and has the potential to disrupt and alter nearshore fish habitat.</p> <p>Pinaymootang First Nation is concerned that the AEMP does not verify the predicted effects on surface water quality and fish habitat.</p> <p>Pinaymootang First Nation is concerned that the potential effects to aquatic habitat are oversimplified.</p> <p>Pinaymootang First Nation is concerned about mobilized mercury in the drainage water.</p> <p>Pinaymootang First Nation is concerned about the limited array of water quality data related to the west of the LMOC and the south of the LSMOC that may be affected by the Project.</p> <p>Pinaymootang First Nation is concerned that the Project construction and operation timing will impact reproductive stages of fish, particularly through increased TSS.</p> <p>Pinaymootang First Nation is concerned about the conclusion that residual effects to fish and fish habitat in Sturgeon Bay are not expected to occur despite the inadequacy of the modelling and baselines.</p> <p><u>Recommendations made by Pinaymootang First Nation:</u></p> <ul style="list-style-type: none"> Pinaymootang First Nation recommends opportunities for Pinaymootang First Nation members to carry out monitoring of water quality, fish health, in Pinaymootang territory so that members can both trust monitoring results and have an informed role in determining adaptive measures. Pinaymootang First Nation recommends discussion on potential sediment plumes (mentioned later in this document), and tie that into the spatial boundaries of the assessments. 				

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<ul style="list-style-type: none"> • Pinaymootang First Nation recommends that Manitoba Infrastructure provide some details as to how the GWMP and SWMP will be developed, including how impacts to surface water bodies along the LMOC and LSMOC alignments will be detected and how negatively impacted wetlands will be rehabilitated or compensated for. • Pinaymootang First Nation recommends that Manitoba Infrastructure provide mitigation measures for migratory staging of fish. • Pinaymootang First Nation recommends that Manitoba Infrastructure provide additional information on the distribution and size classes of substrates within Birch Bay. • Pinaymootang First Nation would like to work with Manitoba Infrastructure to ensure a meaningful assessment of effects is undertaken and adequate mitigation and accommodation measures are adopted that will ensure the protection of Pinaymootang First Nation rights, traditional use, and interests. • Pinaymootang First Nation recommends the monitoring of all mitigation efforts should proceed until a one-in-ten year flood event has occurred, and alterations to the monitoring program should only occur following confirmation of the effectiveness of the mitigation measures following that flood event. • Pinaymootang First Nation recommends identifying the number of Indigenous respondents for the Groundwater and Surface Water Management Plans. • Pinaymootang First Nation requests that Manitoba Infrastructure engage with Pinaymootang First Nation in a water quality workshop to identify Pinaymootang's values and cultural standards related to water quality in Lake St. Martin. • Pinaymootang First Nation recommends the involvement in Indigenous FSC and commercial fish harvesters in the development and implementation of any monitoring and follow-up program to see how changes are occurring and how meaningful they are. • Pinaymootang First Nation requests the inclusion of indicators surrounding fish and fishing that are meaningful to Indigenous groups to understand Project impacts. • Pinaymootang First Nation recommends a water quality station that includes collections to determine lake redox potential must be established in the south basin of Lake Manitoba. 				

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<ul style="list-style-type: none"> Pinaymootang First Nation recommends that the SWEMP and AEMP monitoring programs in the south basin of Lake Manitoba be long term rather than a two-year sampling program. Pinaymootang First Nation requests that Manitoba Infrastructure run analysis using years when the Potage Diversion has been operated and include the 2014/2015 flood years. <p>Manitoba Infrastructure provided a summary of secondary sources used in regulatory reporting for the Project to Pinaymootang First Nation for review and comment. Pinaymootang First Nation has informed Manitoba Infrastructure they do not consider the secondary sources to fully reflect Pinaymootang First Nation's perspectives, knowledge and values and have submitted a consultation report to Manitoba Infrastructure.</p> <p><u>Sources:</u> Manitoba Infrastructure 2019b Indigenous Engagement Program – Appendix 5A.18 Golder Associates 2018 PFN, SBOFN and SFN 2021 PFN 2020 PFN 2021 PFN 2022a PFN 2022b PFN 2022c PFN 2022d PFN 2022e PFN n.d.</p>				
Plants and Plant Harvesting				
<p><u>Existing Conditions:</u> Pinaymootang First Nation has reported harvesting Saskatoon berry, highbush cranberry, choke cherries, <i>weekey (weke)</i>, Seneca root, snakeroot, sweetgrass, cedar, balsam poplar, bearberry, blueberry, Canada gooseberry, jackpine, juniper, Labrador tea, raspberry, sage, strawberry, nuts.</p> <p>Pinaymootang First Nation reported in plant and berry gathering in the RAA and LAA. Plants and berries gathered include Saskatoon berries, cranberries, chokecherries, <i>weekey (weke)</i>, Seneca root, and nuts.</p>	<p><u>Species identified by Pinaymootang First Nation:</u> Saskatoon berry, highbush cranberry, chokecherry, <i>weekey (weke)</i>, Seneca root, snakeroot, sweetgrass, cedar, balsam poplar, bearberry, blueberry, Canada gooseberry, jackpine, juniper, Labrador tea, raspberry, sage, willow, strawberry, nuts.</p> <p><u>Other plant species in the RAA commonly understood to be</u></p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>Manitoba Infrastructure acknowledges that the information about use of plants and plant harvesting by Pinaymootang First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component. The RVMP includes weed control measures and herbicide application (e.g.,</p>

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<p>Pinaymootang First Nation indicated that the flooding of Lake St. Martin has resulted in impacts to the harvest of medicinal herbs and plants.</p> <p>Pinaymootang First Nation reported that high water levels have killed off willows.</p> <p>Pinaymootang First Nation reported that riparian plants, that were important food sources, have been displaced by flooding.</p> <p>Pinaymootang First Nation reported a decrease in shoreline vegetation such as strawberries, gooseberries and cranberries.</p> <p>Pinaymootang First Nation reported that medicines that grow in sensitive and specific ecosystem that cannot be brought back once they are damaged.</p> <p><u>Issues and Concerns:</u></p> <p>Pinaymootang First Nation is concerned with impacts to harvesting rights (medicinal plants, berry picking).</p> <p>Pinaymootang First Nation expressed concern regarding food security, concerns of contamination, and a loss of medicine knowledge.</p> <p>Pinaymootang First Nation expressed concern about the loss in availability of medicinal and traditional plants that will result from the proposed Project.</p> <p>Pinaymootang First Nation expressed concern that traditional berry picking and medicine harvest areas may be affected by local flooding.</p> <p>Pinaymootang First Nation expressed concern that access road construction has the potential to disturb vegetation.</p> <p>Pinaymootang First Nation expressed concerns about the potential for changes in water flows to affect medicinal plants.</p> <p>Pinaymootang First Nation noted that Access Road is known to be an important place to harvest medicinal plants.</p> <p>Pinaymootang First Nation is concerned that Seneca root picking takes place where the channels are proposed.</p> <p>Pinaymootang First Nation expressed concern that plant-based traditional and cultural activities will be directly affected by adverse effects to water.</p> <p>Pinaymootang First Nation is concerned about how the Project will impact plant and plant harvesting.</p> <p>Pinaymootang First Nation is concerned about the quality and functionality of wetlands impacted by the Project.</p> <p>Pinaymootang First Nation is concerned about the impact of AIS on food, social, ceremonial fisheries, and economic</p>	<p><u>harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, giant hyssop, baneberry, speckled alder, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugle-weed, Canada mayflower, wild mint, morel, yellow evening primrose, self-heal, pin cherry, sand cherry, plum, bracken (fiddlehead), wintergreen, bur oak, wild black currant, red currant, prairie rose, wild rose, cloud berry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, red clover, dwarf blueberry, bog blueberry, cranberry, logan berry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> Lake St. Martin is located in the PDA. EOC Access Road</p>	<p>for use plants and plant harvesting by Pinaymootang First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Pinaymootang First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>them to harvest traditionally used plants, in advance of the start of Project construction..</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration • As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). • Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. • The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. 	<p>glyphosate) will be required in some instances. Integrated approaches using mechanical treatment and active revegetation will be used where possible. Areas of existing weed infestation will likely require broadcast herbicide application. Herbicide application will not occur within 30 m of waterbodies and fish habitat and will be handled under a pesticide permit.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7). As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Pinaymootang First Nation to discuss the Environmental Management Plans. A meeting was held with Pinaymootang First Nation on the following date: January 26, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring</p>

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<p>harvesting opportunities as a result of introduction and spread related to Project activities.</p> <p>Pinaymootang First Nation is concerned about how Indigenous groups will be involved in developing and implementing the wetland compensation program.</p> <p>Pinaymootang First Nation is concerned about impacts to vegetation growth and ability to harvest medicines, loss of berry plants, concerns about the use of glyphosate for weed control, and loss of harvesting areas.</p> <p>Pinaymootang First Nation is concerned that Manitoba Infrastructure does not define Pinaymootang First Nation's Section 35 rights nor identify how the Project may impact these rights.</p> <p><u>Recommendations made by Pinaymootang First Nation:</u></p> <ul style="list-style-type: none"> Pinaymootang First Nation recommends Manitoba Infrastructure provide opportunities for Pinaymootang First Nation to carry out monitoring of water quality, fish health, wildlife health, heritage sites, and community well-ness in Pinaymootang First Nation territory so that members can both trust monitoring results and have an informed role in determining adaptive measures. Pinaymootang First Nation would like to work with Manitoba Infrastructure to ensure a meaningful assessment of effects is undertaken and adequate mitigation and accommodation measures are adopted that will ensure the protection of Pinaymootang First Nation rights, traditional use, and interests. Pinaymootang First Nation encourages Manitoba Infrastructure to inform Pinaymootang First Nation if a wildfire spreads beyond the PDA which could put land users or communities at risk. <p>Manitoba Infrastructure provided a summary of secondary sources used in regulatory reporting for the Project to Pinaymootang First Nation for review and comment. Pinaymootang First Nation has informed Manitoba Infrastructure they do not consider the secondary sources to fully reflect Pinaymootang First Nation's perspectives, knowledge and values and have submitted a consultation report to Manitoba Infrastructure.</p> <p><u>Sources:</u></p> <p>Golder Associates 2018</p> <p>Manitoba Infrastructure 2018b</p> <p>PFN, SBOFN and SFN 2021</p>			<ul style="list-style-type: none"> Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>program. Feedback was received from Pinaymootang First Nation in May of 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p>

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<p>PFN 2021 PFN 2022a PFN 2022b PFN 2022c Manitoba Infrastructure Indigenous Engagement Program for the Project</p>				<p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Pinaymootang First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p><u>Existing Conditions:</u> Pinaymootang First Nation reported that access to Lake St. Martin is gone because of fluctuating water levels as a result of the FRWCS. Pinaymootang First Nation reported important trails or access routes in the Project Area, including a snowmobile trail used to access Lake St. Martin fishing areas.</p> <p><u>Issues and Concerns:</u> Pinaymootang First Nation expressed concerns regarding Lake St. Martin Access Road Project including, the road's location, whether or not it will be gated, and potential for impacts to road maintenance. Manitoba Infrastructure provided a summary of secondary sources used in regulatory reporting for the Project to Pinaymootang First Nation for review and comments. Pinaymootang First Nation has informed Manitoba Infrastructure they do not consider the secondary sources to fully reflect Pinaymootang First Nation's perspectives, knowledge and values and have submitted a consultation report to Manitoba Infrastructure. Pinaymootang First Nation is concerned about the Project's potential effects on cultural continuity and loss of trails. Pinaymootang First Nation is concerned that the Project will adversely impact the heritage value associated with the Fairford Trail and its historical function as a travel route and Watchorn Creek crossing.</p> <p><u>Recommendations made by Pinaymootang First Nation:</u></p> <ul style="list-style-type: none"> Pinaymootang First Nation recommends that Manitoba Infrastructure develop an AMP specific to Pinaymootang First Nation to ensure safe access for Pinaymootang First Nation members to the lakes. Pinaymootang First Nation would like to work with Manitoba Infrastructure to ensure a meaningful assessment of effects is undertaken and adequate 	<p><u>Locations:</u> Lake St. Martin is within the PDA. Lake St. Martin Access Road Watchorn Creek is within the LAA,</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes. Manitoba Infrastructure acknowledges that the information about use of travel routes by Pinaymootang First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of travel routes harvesting by Pinaymootang First Nation to occur throughout the RAA. While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively. The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways. The Project is anticipated to result in changes in access to traditional resources and current use</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. 	<p>The success of mitigation for travel routes will be monitored through the EMPs These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project. During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups. Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7). As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Pinaymootang</p>

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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

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<p>mitigation and accommodation measures are adopted that will ensure the protection of Pinaymootang First Nation rights, traditional use, and interests.</p> <p><u>Sources:</u></p> <p>Golder Associates 2018</p> <p>Manitoba Infrastructure 2019a</p> <p>PFN, SBOFN and SFN. 2021</p> <p>PFN 2021</p> <p>PFN 2022a</p> <p>PFN 2022b</p> <p>Manitoba Infrastructure Indigenous Engagement Program for the Project</p>		<p>areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed at specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>First Nation to discuss the Environmental Management Plans. A meeting was held with Pinaymootang First Nation on the following date: January 26, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Feedback was received from Pinaymootang First Nation in May of 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing</p>

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				<p>discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Pinaymootang First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p><u>Existing Conditions:</u></p> <p>Pinaymootang First Nation reported that there are six registered archaeological sites in the Interlake region listed in the Provincial Archaeological Site Inventory. Four sites were identified as historic period and included sites of fur trade and homestead influence. Two sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on stone tool and Native ceramics. Pinaymootang First Nation reported that five of these archaeological sites occur within or adjacent to Pinaymootang traditional lands.</p> <p>Pinaymootang First Nation reported that the area of the proposed Project is important for food, water, and medicine and is a place of healing and passing on Pinaymootang language, spirituality, and culture.</p> <p><u>Issues and Concerns:</u></p> <p>Pinaymootang First Nation raised concerns regarding the Projects on going flooding in the region from control structures and increases in water levels on Lake Winnipeg that may cause the erosion of lake shoreline that diminishes the value of camping.</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about location of habitation, cultural and spiritual sites and areas identified by Pinaymootang First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Pinaymootang First Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. 	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that</p>

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<p>Pinaymootang First Nation raised concerns about the effects of Project-related flooding on important sites, such as ceremonial sites and unmarked graves.</p> <p>Pinaymootang First Nation reported that there are several sites throughout the Project Area that are of high concern for Pinaymootang members.</p> <p>Pinaymootang First Nation is concerned about how the Project will impact cultural resources and cultural connections to Pinaymootang First Nation rights and interest, which have already been greatly impacted by Manitoba Transportation and Infrastructure's integrated water management system that has led to flood of reserve land, clearing of culturally important medicines, loss of wildlife and habitat, fish and fish habitat, and clean water. These effects are seen as impacting Pinaymootang First Nation's rights to fish, hunt, harvest, access lands and waters, feed the community and practice culture.</p> <p>Pinaymootang First Nation is concerned about gaps in the assessment of effects on cultural heritage and the limited focus on physical cultural heritage, disregarding intangible heritage values including use of an area, or cultural and spiritual values which may be affected by the Project or cumulative effects.</p> <p>Pinaymootang First Nation expressed concern about Manitoba Transportation and Infrastructure's decision to excavate a regionally significant cultural heritage site with no consultation from Pinaymootang First Nation.</p> <p>Pinaymootang First Nation is concerned that the assessment of potential Project effects on cultural heritage has excluded consideration of how the operation of the Project will affect water levels in the south basin of Lake St. Martin.</p> <p>Pinaymootang First Nation is concerned about that lack of baseline information collected by Manitoba Infrastructure and thus the inability to properly assess how the Project will impact Pinaymootang First Nation's cultural heritage.</p> <p>Pinaymootang First Nation is concerned that the proponent does not understand what areas are important to Pinaymootang First Nation or why these areas are important.</p> <p>Pinaymootang First Nation is concerned with the limitation of land valuation to agricultural activities and does not include the value of land to Indigenous groups and its importance in traditional activities.</p> <p>Pinaymootang First Nation is concerned about the Project-related changes in water levels, including reduction in water levels, has the potential to interact with other elements of cultural heritage, including use values and associated spiritual and cultural values. Pinaymootang First Nation is concerned about the Project's potential effects on cultural continuity, such as disruption of cultural transmission, reduced opportunities to</p>		<p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Apart from the two known cemeteries, no burials or unmarked graves have been identified or reported in the RAA. Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<ul style="list-style-type: none"> An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u></p> <p>Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails, affecting Dauphin River First Nation and Peguis First Nation, and possibly Pinaymootang First Nation. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Pinaymootang First Nation to discuss the Environmental Management Plans. A meeting was held with Pinaymootang First Nation on the following date: January 26, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Feedback was received from Pinaymootang First Nation in May of 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services</p>

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<p>spend time on the land and, loss of trails, burial sites and habitation sites.</p> <p>Pinaymootang First Nation is concerned about the ability to be involved in the monitoring and mitigation of heritage impacts.</p> <p>Pinaymootang First Nation is concerned about the excavation and removal of heritage resources from the territory which will result in a significant residual effect to Pinaymootang First Nation's cultural heritage.</p> <p>Pinaymootang First Nation is concerned about being notified or involved in heritage mitigation measures in event that a channel is breached.</p> <p><u>Recommendations made by Pinaymootang First Nation:</u></p> <ul style="list-style-type: none"> Pinaymootang First Nation recommends opportunities for Pinaymootang First Nation to carry out monitoring of heritage sites in Pinaymootang territory so that members can both trust monitoring results and have an informed role in determining adaptive measures Pinaymootang First Nation recommends Manitoba Infrastructure incorporate first-hand Pinaymootang knowledge, including from Pinaymootang First Nation's upcoming Traditional Knowledge and Resource Use Study, in upcoming stages of the EIS review. Pinaymootang First Nation requests an effects assessment on tangible and intangible cultural heritage values be completed for each Indigenous group affected by the Project. Pinaymootang First Nation would like to work with Manitoba Infrastructure to ensure a meaningful assessment of effects is undertaken and adequate mitigation and accommodation measures are adopted that will ensure the protection of Pinaymootang First Nation rights, traditional use, and interests. <p>Manitoba Infrastructure provided a summary of secondary sources used in regulatory reporting for the Project to Pinaymootang First Nation for review and comments. Pinaymootang First Nation has informed Manitoba Infrastructure they do not consider the secondary sources to fully reflect Pinaymootang First Nation's perspectives, knowledge and values and have submitted a consultation report to Manitoba Infrastructure.</p>				<p>Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Pinaymootang First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>Pine Dock Northern Affairs Community <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p>Manitoba Infrastructure has obtained no information about Pine Dock Northern Affairs Community hunting or trapping or traditionally harvested species in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> moose, mule deer, white-tailed deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, muskrat, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p> <p><u>Locations:</u> No specific hunting or trapping sites or locations used by Pine Dock Northern Affairs Community within the RAA were identified through the Indigenous Consultation and Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>In the absence of specific information about current use by Pine Dock Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping Pine Dock Northern Affairs Community occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Pine Dock Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that</p>

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		<p>wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided.</p> <ul style="list-style-type: none"> As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Pine Dock Northern Affairs Community were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
				<p>this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Pine Dock Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u> Pine Dock Northern Affairs Community reported commercial fishing and recreational angling.</p> <p>Pine Dock Northern Affairs Community reported that walleye (pickerel) appear a lot larger in Lake Winnipeg since arrival of smelt.</p> <p><u>Sources:</u> PDNAC 2021</p>	<p><u>Species identified by Pine Dock Northern Affairs Community:</u> walleye.</p> <p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger.</p> <p><u>Locations:</u> Portions of Lake Winnipeg are in the PDA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about use of aquatic environment and fishing by Pine Dock Northern Affairs Community presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of aquatic environment and fishing by Pine Dock Northern Affairs Community occur throughout</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be</p>

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		<p>the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Pine Dock Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily</p>	<p>to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43).</p> <ul style="list-style-type: none"> • Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. • Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m 	<p>monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). COVID-19, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Pine Dock Northern Affairs Community were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this</p>

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		<p>through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>from the ordinary high-water mark of a waterbody, riparian area, or wetland.</p> <ul style="list-style-type: none"> All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. The majority of Project channel excavation and construction will be conducted “in the dry” and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year- 	<p>discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about aquatic</p>

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			<p>round. Fish mortality due to stranding is expected to be negligible.</p> <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p>Measures to avoid or reduce effects to commercial fishing are identified in the CEMP and include:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will engage with commercial fish harvesters, anglers, local resource users, and MSD Regional Officials to address potential conflict, disturbance, or access restrictions to fishing/harvesting areas in the PDA and LAA, and availability of fish resources. <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>environment and fishing that Pine Dock Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Plants and Plant Harvesting				
<p>Manitoba Infrastructure has obtained no information about Pine Dock Northern Affairs Community plant harvesting or traditionally harvested plant species in the RAA has through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugle-weed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> No specific plant harvesting sites or locations used by Pine Dock Northern Affairs Community within the RAA were identified through the Indigenous Consultation and Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>In the absence of specific information about current use by Pine Dock Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Pine Dock Northern Affairs Community to occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Pine Dock Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and</p>

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			<p>restoration of vegetation cover in disturbed areas.</p> <ul style="list-style-type: none"> The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Pine Dock Northern Affairs Community were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for</p>

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				<p>Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Pine Dock Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p>Manitoba Infrastructure has obtained no information about Pine Dock Northern Affairs Community use of travel routes in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific travel routes within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by Pine Dock Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by Pine Dock Northern Affairs Community to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<p>Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel.</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Pine Dock Northern Affairs Community were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction</p>

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				<p>and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Pine Dock Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p>Manitoba Infrastructure has obtained information about Pine Dock Northern Affairs Community use of habitation, cultural and spiritual sites in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about habitation, cultural and spiritual sites and areas identified by Pine Dock Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Pine Dock Northern Affairs Community to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. 	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<ul style="list-style-type: none"> An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><i>Residual Effects after Mitigation:</i> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Pine Dock Northern Affairs Community were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
				<p>Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Pine Dock Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
<p>Poplar River First Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u> Poplar River First Nation reported hunting and trapping moose, bald eagle, Canada goose, ruffed grouse. Beaver, woodland caribou, muskrat, weasel, squirrel, otter, ducks, geese, grouse, otter, mink, lynx, gulls, black bear. Poplar River First Nation reported that the east side of Lake Winnipeg is used for traditional activities including hunting and trapping. Hunting has been identified as an important activity.</p>	<p><u>Species identified by Poplar River First Nation:</u> moose, bald eagle, Canada goose, ruffed grouse, beaver, woodland caribou, muskrat, weasel, squirrel, otter, ducks, geese, grouse, mink, lynx, gull, black bear. <u>Other species in the RAA commonly understood to be</u></p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use. Manitoba Infrastructure acknowledges that the information about hunting and trapping by Poplar River First Nation presented in this table should not</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project. For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring</p>

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<p>Poplar River First Nation reported that moose are an especially important animal and they depend on moose as a major and sustainable source of food and its hide and antlers have been important sources of material for shelter, clothing, equipment and handicrafts.</p> <p>Poplar River First Nation reported that trapping is an important traditional activity and reported trapping furs such as beaver, muskrat, otter, squirrel, and weasel.</p> <p>Poplar River First Nation reported trapping areas at Wrong Lake, Harrop Lake, Weaver Lake, Gilchrist Lake, Big Black River</p> <p><u>Issues and Concerns:</u></p> <p>Poplar River First Nation is concerned that wildlife movement will be directly affected by the planned distribution line supplying power to the Lake St Martin gate. Wildlife movement will be affected by construction, and the linear feature will permanently affect wildlife movement as well as fragment, destroy and degrade wildlife habitat around it.</p> <p><u>Sources:</u></p> <p>CEA Agency 2017 PRFN 2011 PFRN 2019a</p>	<p><u>harvested by Indigenous groups:</u> mule deer, elk, coyote, wolf, wolverine, short-tailed weasel, long-tailed weasel, rabbit, mallard, sharp-tailed grouse, prairie chicken, partridge.</p> <p><u>Locations:</u> The east side of Lake Winnipeg, Poplar River, Gilchrist Lake, Big Black River, Weaver Lake, Harrop Lake, Wrong Lake and Bear Head Lake are outside of the RAA.</p>	<p>be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Poplar River First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Poplar River First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk.</p> <ul style="list-style-type: none"> As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., 	<p>using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Poplar River First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba</p>

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			<p>forbs, shrubs, young trees) re-establishes along the ROW edges.</p> <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE R, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and</p>

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Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u></p> <p>Poplar River First Nation reported fishing for lake sturgeon, jackfish, whitefish, tullibee, pickerel (walleye).</p> <p>Poplar River First Nation reported that the east side of Lake Winnipeg is used for traditional activities including fishing.</p> <p>Poplar River First Nation reported that they fish on Lake Winnipeg and along the river outlets along the lake. Poplar River First Nation identified fishing areas that include the Big Black River, Poplar River, Poplar Point and Weaver Lake.</p> <p>Poplar River First Nation reported that Indigenous fishers on Lake Winnipeg have seen negative impacts on fisheries across the north basin due to the EOCs operation.</p> <p>Poplar River First Nation fishers saw changes in water quality (fish habitat) and fish species after emergency channel use.</p> <p>Poplar River First Nation reported that lake whitefish are an important commercial and subsistence species.</p> <p>Poplar River First Nation reported that bigmouth buffalo have been caught in Delta Marsh so are possibly in Lake Manitoba.</p> <p>Poplar River First Nation reported that the river and stream mouths along Lake Winnipeg are especially important habitats and spawning routes for Lake Winnipeg fish.</p> <p>Poplar River First Nation reported that lake sturgeon are regarded as culturally important.</p> <p><u>Issues and Concerns:</u></p> <p>Poplar River First Nation is concerned with changes to water quality and quantity.</p> <p>Poplar River First Nation are concerned with impacts to fish and fishing.</p> <p>Poplar River First Nation are concerned with movement of invasive species.</p> <p>Poplar River First Nation is concerned that lack of water flow may aid in the establishment of invasive species.</p> <p>Poplar River First Nation is concerned that any impact on water quality, ice processes, sediment transport, and drainage would affect all connected waterbodies.</p>	<p><u>Species Identified by Poplar River First Nation:</u> lake sturgeon, jackfish (northern pike), whitefish, tullibee, pickerel, bigmouth buffalo.</p> <p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> white sucker, common carp, channel catfish, burbot, trout, perch, sauger.</p> <p><u>Locations:</u> Portions of Lake Winnipeg and Lake Manitoba are within the PDA. Poplar River, Weaver Lake, Big Black River (Mukatawa River), Poplar Point, Poplar River, the east side of Lake Winnipeg, Wrong Lake and Delta Marsh are outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by Poplar River First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Poplar River First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Poplar River First Nation.</p> <p>During a flood event, water flows across the land and can pick up sediments that contain chemicals such as fertilizers, pesticides and other contaminants. Under current conditions, this material flows through the Fairford River and the Dauphin River during floods. The Project will reduce the amount of overland flooding and is therefore expected to reduce the amount of contamination entering Lake Winnipeg.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative</p>	<p>Effects regarding sediments, debris and contamination have been considered in the SWMP, SMP and Debris Management Plan. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Measures will be implemented for materials handling, waste handling and disposal and fuel handling and storage in designated areas located a minimum of 100 m from waterbodies and with secondary containment. Any storage and use of chemicals is strictly regulated and application of chemicals requires training and a permit. Sediments will be monitored, and visual inspections will be carried out as part of the SWMP and SMP and contingency mitigation measures such as silt fencing and materials to minimize bank erosion will be used, where necessary. The banks of the channel will be revegetated to reduce erosion. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. If required, at the start of operation, the water control structure gates can be gradually opened to control sediment levels, based on results of sediment monitoring. There will likely be increases in sediment concentrations at the end of the channel, but they will be managed to address water quality concerns through monitoring and flow adjustments. <p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by 	<p>Infrastructure will review any information about hunting and trapping that Poplar River First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p> <p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Poplar River First Nation is concerned about the potential for contaminants, pollutants, and sediment load that will occur when the channel is used.</p> <p>Poplar River First Nation is concerned that waters flowing from the province of Saskatchewan, through lakes, rivers, and other flood prevention structures could bring much more pollution, nitrates, phosphorus and invasive species to our Lake and Poplar River First Nation's fishery.</p> <p><u>Sources:</u> CEA Agency 2017 Manitoba Infrastructure Indigenous Engagement for the Project PRFN 2011 PRFN 2019a</p>		<p>effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>preventing upstream movement into the channel from Lake Winnipeg.</p> <ul style="list-style-type: none"> Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage 	<p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Poplar River First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of</p>

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			<p>will be erected limiting access to authorized personnel.</p> <ul style="list-style-type: none"> • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted “in the dry” and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. • Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). • To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and 	<p>training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. Manitoba. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Poplar River First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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			<p>dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible.</p> <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	
Plants and Plant Harvesting				
<p><u>Existing Conditions:</u></p> <p>Poplar River First Nation reported that the east side of Lake Winnipeg is used for traditional activities including plant harvesting and timber harvest for firewood. The area described borders the east-side shores of Lake Winnipeg.</p> <p>Poplar River First Nation harvest berries, plants, and wild rice in local creeks and muskeg areas in the vicinity of the community.</p> <p>Poplar River First Nation reported that they greatly value the poplar tree as an important food source for beaver and rabbits</p>	<p><u>Species Identified by Poplar River First Nation:</u> strawberry, raspberry, Saskatoon berry, poplar, white spruce, red-osier dogwood, tobacco, bunchberry, ginger root, birch, tamarack, jackpine, spruce, carrot, wild rice.</p> <p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u></p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>Manitoba Infrastructure acknowledges that the information about use of plants and plant harvesting by Poplar River First Nation presented in this table should not be considered</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental</p>

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<p>that they have depended on for food, for the making of snares from poplar saplings, and for medicinal use of the bark.</p> <p>Poplar River First Nation reported that they use red-osier dogwood for medicines, basket making and tobacco, and communicated the importance of this shrub to moose.</p> <p><u>Sources:</u> CEA Agency 2017 PRFN 2011</p>	<p>balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening primrose, Seneca root, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes.</p> <p><u>Locations:</u> Portions of the east side of Lake Winnipeg are outside of the RAA.</p>	<p>comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use plants and plant harvesting by Poplar River First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Poplar River First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction..</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration • As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). • Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. • The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. 	<p>Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Poplar River First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental</p>

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			<ul style="list-style-type: none"> Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Poplar River First Nation may</p>

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				bring forward and incorporate into regulatory reporting and Project planning as appropriate.
Travel Routes				
<p><u>Existing Conditions:</u> Poplar River First Nation reported that the east side of Lake Winnipeg is used for traditional activities including travel routes. The area described borders the east-side shores of Lake Winnipeg. Poplar River First Nation reported travelling to Weaver Lake (community camp) every year and in every season.</p> <p><u>Sources:</u> CEA Agency 2017 PRFN 2011</p>	<p><u>Locations:</u> The east side of Lake Winnipeg and Weaver Lake is outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>Manitoba Infrastructure acknowledges that the information about use of travel routes by Poplar River First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of travel routes harvesting by Poplar River First Nation to occur throughout the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring</p>

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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<ul style="list-style-type: none"> As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>program. No feedback has been received from Poplar River First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as</p>

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				<p>a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Poplar River First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p><u>Existing Conditions:</u></p> <p>Poplar River First Nation reported that the east side of Lake Winnipeg is used for traditional activities including camping and sacred and ceremonial places. The area described borders the east-side shores of Lake Winnipeg.</p> <p>Poplar River First Nation reported that many small trapping or hunting camps and cabins have been developed along the river and stream courses.</p> <p>Poplar River First Nation reported that several archaeological sites were identified by the presence of native ceramics such as Laurel, Blackduck and Selkirk as well as a variety of stone tools. Of most significance is the proliferation of pictographs along the many river courses.</p> <p>Poplar River First Nation reported that ancient and historical campsites were located at productive fisheries; cabins are located on or near the ancient campsites.</p> <p>Poplar River First Nation reported that they had a camp at Thegeeing, which is located at Weaver Lake.</p> <p>Poplar River First Nation reported they have designated waters in Lake Winnipeg, which protect sacred islands as identified in the Poplar River First Nation regulated land use plan.</p> <p>Poplar River First Nation reported that islands are often locations of Indigenous sites.</p> <p><u>Issues and Concerns:</u></p> <p>Poplar River First Nation is concerned that changes in the water flow caused by the Project may cause shoreline erosion in areas where it was previous uncommon, and thus result in loss of land and associated heritage resources, or uncover previously unknown sites.</p>	<p><u>Locations:</u> The east side of Lake Winnipeg, Poplar River and Weaver Lake are outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> The HRIA identified existing or potential sites and prescribes site specific mitigation. The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. The EPP identifies specific existing and potential sites and specific measures to protect them. The AMP controls access around the Project construction area. Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15)</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Poplar River First Nation is concerned that active sacred or gathering sites and cemeteries may be impacted by reclamation, as it may involve backfilling, grading, seeding, transport of materials.</p> <p>Poplar River First Nation is concerned that active sacred or gathering sites (that are not necessarily cemeteries) may be impacted by activities associated with quarries (noise, traffic, blasting, flood lights, etc.).</p> <p><u>Poplar River First Nation Recommends:</u></p> <ul style="list-style-type: none"> Manitoba Infrastructure have an archaeologist and Indigenous Elder onsite when any clearing of vegetation or digging occurs. Not all heritage resources will be identifiable by a lay person, engineer or a non-Indigenous person. <p><u>Sources:</u> CEA Agency 2017 PRFN 2011 PRFN 2019a</p>		<p>archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<p><i>Residual Effects after Mitigation:</i> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Poplar River First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Princess Harbour Northern Affairs Community <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p>Manitoba Infrastructure has obtained no information about Princess Harbour Northern Affairs Community hunting or trapping or traditionally harvested species in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> moose, mule deer, white-tailed deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, muskrat, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p> <p><u>Locations:</u> No specific hunting or trapping sites or locations used by Princess Harbour Northern Affairs Community within the RAA were identified through the Indigenous Consultation and Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>In the absence of specific information about current use by Princess Harbour Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping Princess Harbour Northern Affairs Community occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Princess Harbour Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel</p>

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		<p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>personnel. Safe passage will be provided at identified crossing locations.</p> <ul style="list-style-type: none"> Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by</p>	<p>routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Princess Harbour Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating</p>

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			<p>Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Princess Harbour Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Aquatic Environment and Fishing				
<p><u>Issues and Concerns:</u></p> <p>Princess Harbour Northern Affairs Community is concerned the Project will bring additional pollution and sediment into Lake Winnipeg. This could negatively affect fishing, the community's main economic driver, and their drinking water source.</p> <p>Princess Harbour Northern Affairs Community is concerned the Project will result in a rise in Lake Winnipeg's water level.</p> <p>Princess Harbour Northern Affairs Community is concerned that fisheries will be adversely affected from the increased water level from the outlet channel.</p> <p>Princess Harbour Northern Affairs Community is concerned about the water level of Lake Winnipeg in relation to the proposed permanent outlet channel from Lake Manitoba.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement for this Project</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye (pickereel).</p> <p><u>Locations:</u> Portions of Lake Winnipeg and Lake Manitoba are in the PDA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by Princess Harbour Northern Affairs Community presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Princess Harbour Northern Affairs Community to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Princess Harbour Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p>	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such as water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition due to limitations resulting from the COVID-19 pandemic, a virtual consultation</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

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		<p>the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted "in the dry" and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. • Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to 	<p>and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Princess Harbour Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready</p>

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			<p>the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about aquatic environment and fishing that Princess Harbour Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Plants and Plant Harvesting				
<p><u>Issues and Concerns:</u> Princess Harbour Northern Affairs Community is concerned that wild rice will be adversely impacted.</p> <p><u>Sources:</u> Manitoba Infrastructure Indigenous Engagement for this Project</p>	<p><u>Species Identified by Princess Harbour Northern Affairs Community:</u> wild rice</p> <p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes.</p> <p>Locations: No specific plant harvesting sites or locations used by Princess Harbour Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>In the absence of specific information about current use by Princess Harbour Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Princess Harbour Northern Affairs Community to occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Princess Harbour Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and</p>

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			<p>restoration of vegetation cover in disturbed areas.</p> <ul style="list-style-type: none"> The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Princess Harbour Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition</p>

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				<p>to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Princess Harbour Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p>Manitoba Infrastructure has obtained no information about Princess Harbour Northern Affairs Community use of travel routes in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific travel routes used by Princess Harbour Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by Princess Harbour Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by Princess Harbour Northern Affairs Community to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel 	<p>The success of mitigation for travel routes will be monitored through the EMPs These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were Detailed mitigation and monitoring program review discussions have been incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated</p>

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		<p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<p>alignment will be on top of the containment dikes on either side of the excavated channel.</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Princess Harbour Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing</p>

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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
				<p>discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. This is all to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE R, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Princess Harbour Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p>Manitoba Infrastructure has obtained no information about Princess Harbour Northern Affairs Community use of habitation, cultural and spiritual sites in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations used by Princess Harbour Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about habitation, cultural and spiritual sites and areas identified by Princess Harbour Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Princess Harbour Northern Affairs Community to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. 	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into</p>

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		<p>associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<ul style="list-style-type: none"> An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><i>Residual Effects after Mitigation:</i> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Princess Harbour Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
				<p>this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Princess Harbour Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
<p>Sagkeeng First Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions</u></p> <p>Sagkeeng First Nation reported that hunting takes place between lake Winnipeg and Nopiming Provincial Park, extending further south of the Piney area. A small area south of Selkirk in and around Birds Hill Park is also utilized.</p> <p>Sagkeeng First Nation reported that they are dependent on traditional lands and resources and feel a responsibility to care for the land.</p> <p>Sagkeeng First Nation reported trapping lynx, martins, wolves, coyotes, foxes</p>	<p><u>Species identified by Sagkeeng First Nation:</u> elk, moose, white-tailed deer, lynx, martins, wolves, coyotes, foxes, muskrats</p> <p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> moose, mule deer, white-tailed deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher,</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about hunting and trapping by Sagkeeng First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p><u>Issues and Concerns:</u></p> <p>Sagkeeng First Nation is concerned with impacts to hunting, trapping, wildlife (including on furbearers, elk, moose, white-tailed deer, and waterbirds) and wildlife habitat included (wetlands, riparian areas).</p> <p>Sagkeeng First Nation is concerned with how the Project will impact hunting and wildlife numbers and wildlife habitat</p> <p>Sagkeeng First Nation is concerned that the Project could put up barriers to members being able to access hunting areas or could put pressure to the limited hunting sites that exist.</p> <p>Sagkeeng First Nation is concerned that the Project would create a barrier extending from Lake Manitoba to Lake Winnipeg, isolating First Nations and impeding the free flow of terrestrial wildlife.</p> <p>Sagkeeng First Nation is concerned that any animals that rely on the affected waterways, such as muskrat, white-tailed deer or moose, will decrease in abundance.</p> <p>Sagkeeng First Nation is concerned about migratory bird habitat and the degradation of aquatic habitat and wetlands, including retraction in size and area.</p> <p>Sagkeeng First Nation is concerned about changes to flow volumes and flow velocities through the Narrows and in the Dauphin River that support local movement and the seasonal habitat of migratory birds.</p> <p>Sagkeeng First Nation is concerned about changes to fish and fish habitat in Lake St. Martin that support the seasonal habitat of migratory birds.</p> <p>Sagkeeng First Nation is concerned about the Project's effects on wildlife mortality</p> <p>Sagkeeng First Nation is concerned that the LAA of 1km is not sufficiently conservative to capture the zone of influence for species of importance to Indigenous groups, such as moose. that the Considering this uncertainty, the reliance on this and the importance of local moose abundance for the practice of Sagkeeng First Nation's hunting rights, the proponent should apply a LAA that is more conservative than 1km.</p> <p>Sagkeeng First Nation is concerned that vegetation clearing associated with the Project transmission line has the potential to cause other adverse effects not described by the Proponent (e.g. direct habitat loss/alteration for some migratory bird species). Edge effects may also influence bird reproduction and survival through increased nest predation and competition with edge-loving species for access to suitable nesting cavities. This should be taken into consideration for the Proponent's characterization of the potential effects of the transmission line on migratory birds and SAR.</p>	<p>squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p> <p><u>Locations:</u> Portions of Lake Winnipeg and Lake Manitoba are located within the PDA. Nopiming Provincial Park, areas south of the Piney area, the area south of Selkirk, and Birds Hill Park are located outside the RAA.</p>	<p>trapping by Sagkeeng First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Sagkeeng First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>gated access road to reduce wildlife mortality risk.</p> <ul style="list-style-type: none"> • As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. • Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). • Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. • The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. 	<p>Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>A sharp-tailed grouse lek survey will be completed in 2022 identify any leks (i.e., traditional mating sites) that have the potential to interact with the Project .</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Sagkeeng First Nation to discuss the Environmental Management Plans. A meetings was held with Sagkeeng First Nation on the following date: March 2, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program.</p>

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<p>Sagkeeng First Nation is concerned that the Proponent is dismissing Project-related effects on bat hibernacula because potential features occur outside of the Project's 1km LAA.</p> <p>Sagkeeng First Nation is concerned about how culturally important wildlife species will navigate riprap armoring.</p> <p>Sagkeeng First Nation is concerned that the Proponent does not assess the effects of changes to habitat on non-migratory birds with a focus on species of cultural importance.</p> <p>Sagkeeng First Nation is concerned about increased wolf predation of ungulates in the vicinity of the LSMOC right-of way and the LSMOC Access Road.</p> <p>Sagkeeng First Nation is concerned that the Project is a continuation of rights curtailment and a contribution to existing cumulative effects and has location-specific impacts. Sagkeeng First Nation members are particularly concerned about how the Project will impact wildlife habitat and hunting, and cultural resources and cultural connections to place.</p> <p><u>Recommendations made by Sagkeeng First Nation:</u></p> <ul style="list-style-type: none"> Sagkeeng First Nation recommended that the community be involved in monitoring programs. Sagkeeng First Nation recommended that the proponent apply a LAA that is more conservative than 1km. Sagkeeng First Nation requests a quantitative analysis of effects of habitat change on non-migratory bird species. This assessment should consider both direct and indirect effects and focus on culturally important species (or groups of species or focal species) identified through engagement with Sagkeeng First Nation. Sagkeeng First Nation requests that the Proponent provide a full quantitative accounting of direct and indirect habitat fragmentation, by species of cultural importance (or groupings of species or focal species representative of culturally important species as determined in discussion with Sagkeeng First Nation. Sagkeeng First Nation requests that the Proponent work with Sagkeeng First Nation and other affected Indigenous groups to develop a comprehensive list of culturally important species to be included in the effects assessment, including if and how such species can be represented by focal or surrogate species in the effects assessment Sagkeeng First Nation requests that the Proponent work with Sagkeeng First Nation and other affected Indigenous groups to characterize the baseline conditions, change over time trajectories and carry out an effects assessment and significance determination for each identified culturally 			<ul style="list-style-type: none"> Clearing will not occur between April 1 and August 31 to avoid disturbance to nesting birds and other wildlife (Chapter 8, Section 8.3). Terrestrial buffers, as identified by the Manitoba Conservation Data Centre's Recommended Development Setback Distances from Birds and/or MSDs Forest Management Guidelines for Terrestrial Buffers will be adhered to for all applicable sites (Chapter 8, Section 8.3; PERS, Section 2.9.1). If construction is scheduled to occur within the nesting period for owls and raptors (March 1 to August 31), a nest survey may be conducted by a qualified wildlife biologist if warranted. In the event an active nest is found, it will be subject to site-specific mitigation measures (i.e., clearly marked protective buffer around the nest and/or non-intrusive monitoring) (Chapter 8, Section 8.3).. <p>The Red-headed Woodpecker and Eastern Whip-poor-will Habitat Mitigation Plans are not intended to be offset or compensation plans, but instead are species-specific habitat enhancement plans. The Red-headed Woodpecker Habitat Mitigation Plan includes measures to enhance the edges of the LMOC with shrubs and snags that will benefit not only red-headed woodpecker, but also other wildlife including species of cultural importance such as grouse, snowshoe hair, and red fox. Along the LSMOC, the Eastern Whip-poor-will Habitat Mitigation Plan describes how shrub and tree cover plantings will be added to the edges of the ROW where upland habitat (i.e., forest) exists. These plantings will provide habitat for eastern whip-poor-will and other animals including birds and furbearers.</p> <p>Manitoba Transportation and Infrastructure will comply with the Migratory Birds Convention Act, 1994 and follow prohibitions, including, but not limited to, avoiding the deposition of harmful substances in wetlands frequented by migratory birds (see IAAC-50).</p> <p>Additionally, BMPs described in the PERs and CEMP will be applied to all Project components and will include plans for hazardous material transportation and management, emergency response (i.e., spills), dust control, working in or near water, petroleum storage and equipment fueling and servicing, and erosion and sedimentation control. The PERs and the draft</p>	<p>Feedback was been received from Sagkeeng First Nation in May of 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p>

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<p>important species (and/or agreed to focal or surrogate species).</p> <ul style="list-style-type: none"> Sagkeeng First Nation requests that the Proponent provide a supplementary submission that provides details in respect to project-related fish and wildlife mortality resulting from shoreline inundation, and changes water levels, in the south basin of Lake St. Martin during and after project-related flood management activities; lake level reductions in the north basin of Lake St. Martin during non-flood periods and drought periods. Sagkeeng First Nation requests that the Proponent provide a supplementary submission that provides details in respect to increased wolf predation of ungulates in the vicinity of the LSMOC right-of way and the LSMOC Access Road. Sagkeeng First Nation requests that the Proponent provide a supplementary submission that provides an analysis of the project's linear features effect on wildlife mortality and the subsequent impact on Indigenous land use. Sagkeeng First Nation requests that the Proponent describe potential effects of the Project to the size and extent of riparian and wetland habitats due to sustained reductions in lake water levels and the intersection of the outlet channels with local drainages. Sagkeeng First Nation requests that the Proponent provide a supplementary memo that provides analysis and descriptions of potential Project effects of sustained reductions in water levels in the north basin of Lake St. Martin, and continued variability of water levels in the south basin of Lake St. Martin, to wetland size, water levels, plant community composition, and water quality in relation to the breeding, nesting, and rearing activities of migratory birds. Sagkeeng First Nation requests that the Proponent describe how the risk of mortality of overwintering or denning non-SAR will be avoided and/or mitigated, including consideration of pre-construction surveys and identifying species-specific measures (e.g., avoidance windows and setback distances). Sagkeeng First Nation requests that the Proponent provide the specific location of potential bat hibernacula features so Sagkeeng First Nation can complete a more fulsome assessment of the Project's potential to adversely affect it. <p>Manitoba Infrastructure provided a summary of secondary sources used in regulatory reporting for the Project to Sagkeeng First Nation for review and comment. Sagkeeng First Nation has informed Manitoba Infrastructure they do not consider the secondary sources to fully reflect Sagkeeng First</p>			<p>Dust Control Plan (see Attachment 1 – Updated Environmental Management Plans) stipulate dust control application requirements and the PERs and Manitoba Environmental Accident Reporting Regulation stipulate reporting requirements and response measures for hydrocarbons and other products (e.g., see PER 2.5.2; Attachment 1 – Updated Environmental Management Plans). The road will be operated and maintained in a manner consistent with Manitoba Transportation and Infrastructure's practice for the current PR 239 and other public roads throughout the Province of Manitoba. Based on the mitigation measures and BMPs described above, and the limited interaction of the road realignment with wetland habitat, potential effects can be avoided or reduced.</p> <p>Design updates, including armouring of the channels, are addressed in IAAC-38</p> <p>Part a) of the formal response to IAAC-122 explains how TLRU information was incorporated into the environmental assessment process for the Project.</p> <p>A fulsome list of culturally important wildlife species identified by Sagkeeng First Nation through the Indigenous consultation and engagement program or a review of publicly available literature is available in IAAC-87 (Table 87-1).</p> <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Sagkeeng First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Nation's perspectives, knowledge and values and have submitted a consultation report to Manitoba Infrastructure.</p> <p><u>Sources:</u></p> <p>MMTP 2015</p> <p>Sagkeeng O-Pimatziwin 2016</p> <p>PFN, SBOFN and SFN 2019</p> <p>SFN 2020</p> <p>PFN, SBOFN and SFN 2021</p> <p>SFN 2021</p> <p>SFN 2022a</p> <p>SFN and SBOFN 2022a</p>				
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u></p> <p>Sagkeeng First Nation indicated that water is important for the sustenance of life and essential to traditional practices and beliefs.</p> <p>Sagkeeng First Nation reported that they are dependent on traditional lands and resources and feel a responsibility to care for the waterways.</p> <p>Sagkeeng First Nation reported that hydro developments have led to profound changes on Sagkeeng's water systems, which include, eutrophication of the lake, degraded water quality, changes in the quantity and timing of water entering Lake Winnipeg, and associated adverse impacts to fishing, resource harvesting, health, cultural continuity and general use and enjoyment.</p> <p>Sagkeeng First Nation reported erosion of the lake shore areas and riverbanks, changes in natural seasonal fluctuations of water levels, changes in river velocity and location, increased water turbidity and debris, reduced ice stability, and changes to fish habitat and spawning areas</p> <p>Sagkeeng First Nation reported that fish populations are decreasing due to increased pressure from commercial fishers, and noted that water management is interfering with fish spawning, and spawning habitat is being disturbed.</p> <p>Sagkeeng First Nation reported they have seen declines in water quality since the 2011 flood, noting a change in water colour and clarity and an increase in debris and algae.</p>	<p><u>Species identified by Sagkeeng First Nation:</u> whitefish</p> <p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye (pickerel).</p> <p><u>Locations:</u> Portions of Lake Winnipeg, Lake St. Martin and Lake Manitoba are in the PDA. The Buffalo Creek watershed is in the PDA. Sturgeon Bay is in the PDA. The Fairford River is in the PDA. The Dauphin River is in the LAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing</p>

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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p><u>Issues and Concerns:</u></p> <p>Sagkeeng First Nation are concerned with impacts to water, water levels and fishing rights (fish, fish habitat, safety).</p> <p>Sagkeeng First Nation is concerned about water quality and that the Project will alter the natural filtration system of water, which will extend to animals, fish, plants, and the people</p> <p>Sagkeeng First Nation expressed concern about waterbodies, fish habitats and fish, as well as increased erosion and the effect on water quality.</p> <p>Sagkeeng First Nation are concerned about concern about zebra mussels and other invasive species</p> <p>Sagkeeng First Nation is concerned that the Project has insufficient comparative water quality data for Lake Manitoba, Lake St. Martin, and Lake Winnipeg and almost none for the minor lakes and wetlands. Because of this, Sagkeeng First Nation is also concerned that there is no metals water quality data for surface water or groundwater.</p> <p>Sagkeeng First Nation is concerned about the fish spawning areas.</p> <p>Sagkeeng First Nation is concerned about the Project's groundwater effects on wetlands and lakes, particularly as it relates to fish and their habitat.</p> <p>Sagkeeng First Nation is concerned about the Project's impact on lake setup. Both Lake Manitoba and Lake Winnipeg are subject to lake setup which increases the effective wave height substantially in some instances.</p> <p>Sagkeeng First Nation is concerned about the impact the Project will have on Lake Winnipeg fishery.</p> <p>Sagkeeng First Nation is concerned about the rate of erosion on Sagkeeng First Nation's shoreline.</p> <p>Sagkeeng First Nation is concerned about the increased risk of flood and water levels of Lake Winnipeg.</p> <p>Sagkeeng First Nation is concerned about the dewatering of fens and minor lakes around the major route of the Project and the impact on the diverse ecosystems found there.</p> <p>Sagkeeng First Nation is concerned about waterbodies may be affected by algae, especially blue-green algae.</p> <p>Sagkeeng Nation is concerned about the likelihood of health risks on Indigenous land users that continue to make use of known drinking water locations that may be affected by the Project.</p>		<p>resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and 	<p>Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Sagkeeng First Nation to discuss the Environmental Management Plans. A meetings was held with Sagkeeng First Nation on the following date: March 2, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Feedback was received from Sagkeeng First Nation in May of 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p>

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<p>Sagkeeng First Nation is concerned that the Proponent has made no there is no mention of how the groundwater monitoring wells will be secured and protected from damage or tampering.</p> <p>Sagkeeng First Nation is concerned with the potential for metal leaching from the unconsolidated sediments above the bedrock has not been addressed. Exposure of these sediments to oxygen could result in mineral weathering and release of potentially harmful trace elements into waters draining into the channel alignments.</p> <p>Sagkeeng First Nation is concerned that the proponent has not addressed the concern related to the channel construction and the anticipated drawdown effect on the water table as this relates to the discharge of constituent-laden groundwater to the channels.</p> <p>Sagkeeng First Nation is concerned about methylmercury increases when areas are dried out and then rewetted. Sagkeeng First Nation is concerned about this future risk to its members and to the negative perception that fish will be unhealthy. Sagkeeng First Nation is also concerned that harvesters will think the Project will increase health risks associated with fish consumption, which could reduce TLRU activities or cultural practices in the area.</p> <p>Sagkeeng First Nation is concerned that 50% of the drainage is expected to be reduced in Buffalo Creek watershed.</p> <p>Sagkeeng First Nation has concerns related to how changes in local drainage and water flow will affect water quality for supporting a viable rights-based and commercial fishery, as well as supporting other social and cultural uses of Lake St. Martin and Sturgeon Bay in Lake Winnipeg. These Project-related concerns are exacerbated by existing concerns of cumulative effects (e.g. impacts of agriculture, alterations in the natural flow rates and water levels, changes to fish health, increased nutrient loading, and overall water quality).</p> <p>Sagkeeng First Nation is concerned that the Proponent does not provide adequate information regarding water storage loss due to removal of wetlands for the Project.</p> <p>Sagkeeng First Nation has concerns regarding nutrient loading.</p> <p>Sagkeeng First Nation has concerns regarding fish passage, fish stranding, migratory movements and movement.</p> <p>Sagkeeng First Nation has concerns regarding sediment transport and erosion.</p> <p>Sagkeeng First Nation has concerns regarding reduction of lake levels in the north basin of Lake St. Martin and potential whitefish migratory disruption through the Dauphin River.</p> <p>Sagkeeng First Nation has concerns regarding heightened differential of lake levels between the south and north basins of</p>			<p>overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p>Measures to avoid or reduce effects to commercial fishing are identified in the CEMP and include:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will engage with commercial fish harvesters, anglers, local resource users, and MSD Regional Officials to address potential conflict, disturbance, or access restrictions to fishing/harvesting areas in the PDA and LAA, and availability of fish resources. <p>The response to IAAC-05 identifies mitigations measures to limit the impacts of leaching of metals from unconsolidated sediments.</p>	<p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project as outlined in the IC SER (see Attachment 3 - Engagement and Consultation Updates), drafts of the Environmental Management and Monitoring Plans were sent to Indigenous groups in November and December of 2020. Feedback was received from Sagkeeng First Nation in May of 2021.</p>

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<p>Lake St. Martin during channel operations, as a result of the Narrows serving as a hydraulic control.</p> <p>Sagkeeng First Nation has concerns regarding flow velocity and turbidity changes at the Narrows, revised modelling for which has not been validated or verified, and impacts on whitefish spawning habitat at the Narrows.</p> <p>Sagkeeng First Nation has concerns regarding the potential loss of fish larvae to the LSMOC right after hatching, removes these fish from their rearing habitat.</p> <p>Sagkeeng First Nation has concerns that fish passage may be altered as a result of Project design changes, as well as from flow path changes and reduced flows in the Fairford and Dauphin Rivers.</p> <p>Sagkeeng First Nation has concerns that there will be an effect on fish mortality particularly through the LSMOC, and spawning success will likely be affected, especially for whitefish, at the Narrows in Lake St. Martin.</p> <p>Sagkeeng First Nation has stated that the Project will have a direct impact on lands and waterbodies that have historically been used by Sagkeeng First Nation for harvesting and cultural practices, this disruption will have a direct impact on their continued use of these lands.</p> <p>Sagkeeng First Nation stated that a change resulting from a reduction in flow and thus erosion and sediment transport capability will affect the composition of the alluviums forming the bed of the river and therefore could have a significant effect on the rivers' habitats. This in turn, has the potential to cause substantial adverse impacts to the rights-based fishery in Lake St. Martin and Sturgeon Bay that Indigenous groups rely upon for reasonable livelihood, cultural continuity, and cultural identity.</p> <p>Sagkeeng First Nation stated that their experts believe that the redesign of the inlet will have a major impact on the dynamics of currents, erosion, bed sediments and turbidity in the North Basin of Lake St. Martin. In turn, this may have grave consequences for the health of the fish and fish habitat of Lake St. Martin.</p> <p>Sagkeeng First Nation is concerned that the Project is a continuation of rights curtailment and a contribution to existing cumulative effects and has location-specific impacts. Sagkeeng First Nation members are particularly concerned about how the Project will impact water levels, water quality (which is already especially vulnerable given cumulative effects on water quality), aquatic habitat and aquatic life health, fish and fish habitat, fishing quality and quantity, and cultural resources and cultural connections to place.</p>			<p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	

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<p>Sagkeeng First Nation stated that their rights have been curtailed since the beginning of water management activities associated with MI's integrated Water Management System and Infrastructure.</p> <p>Sagkeeng First Nation is concerned about changes to natural water filtration into Lake Winnipeg, alterations to fish spawning habitat due to changes in current or water quality, and the added risk of aquatic invasive species to Lake Winnipeg and its tributaries.</p> <p>Sagkeeng First Nation is concerned about the lack of baseline information related to Indigenous rights-based commercial fisheries.</p> <p><u>Recommendations made by Sagkeeng First Nation:</u></p> <ul style="list-style-type: none"> • Sagkeeng First Nation recommends that the community be involved in monitoring programs. • Sagkeeng First Nation recommends that Sagkeeng First Nation will be engaged on managing water levels and timing of water level management. • Sagkeeng First Nation recommends that Sagkeeng First Nation be consulted on water levels and recommend that Manitoba Infrastructure set up a process of notifying Sagkeeng First Nation of water level changes. • Sagkeeng First Nation recommends that Manitoba Transportation and Infrastructure ease concerns about methylmercury bioaccumulation through proactive communication with affected Indigenous groups and communities on the results of monitoring and of the risk of methylmercury bioaccumulation from fish. <p>Manitoba Infrastructure provided a summary of secondary sources used in regulatory reporting for the Project to Sagkeeng First Nation for review and comment. Sagkeeng First Nation has informed Manitoba Infrastructure they do not consider the secondary sources to fully reflect Sagkeeng First Nation's perspectives, knowledge and values and have submitted a consultation report to Manitoba Infrastructure.</p> <p><u>Sources:</u></p> <p>MMTP 2015 PFN, SBOFN, SFN 2019 SFN 2020 PFN, SBOFN and SFN. 2021 SFN 2021 SFN 2022a SFN 2022c</p>				

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SFN and SBOFN 2022a SFN and SBOFN 2022b SFN and SBOFN 2022c Interlake First Nations, Sagkeeng First Nation, and Sandy Bay Ojibway First Nation. 2022. Manitoba Infrastructure Indigenous Engagement Program				
Plants and Plant Harvesting				
<p><u>Existing Conditions:</u></p> <p>Sagkeeng First Nation reported gathering cedar and sweetgrass.</p> <p>Sagkeeng First Nation stated that medicinal plant gathering occurs at several sites east and southeast of Winnipeg.</p> <p>Sagkeeng First Nation noted that development increasingly impacts the harvesting of traditional plants and medicines.</p> <p>Sagkeeng First Nation reported that development is increasingly making it more difficult to find healthy plant life.</p> <p>Sagkeeng First Nation reported that they are dependent on traditional lands and resources and feel a responsibility to care for the lands and waterways.</p> <p>Sagkeeng First Nation reported harvesting lily pads at Lake Manitoba, noting that lily pads grow in particular levels of water.</p> <p>Sagkeeng First Nation reported that medicines are disappearing with harvesting locations changing yearly and disappearing.</p> <p><u>Issues and Concerns:</u></p> <p>Sagkeeng First Nation expressed concern that the Project will affect medicinal plant locations.</p> <p>Sagkeeng First Nation are concerned with the potential impacts of the Project on wetlands, riparian areas and wetland-dependent vegetation</p> <p>Sagkeeng First Nation is concerned about the impact the Project will have on traditional medicines.</p> <p>Sagkeeng First nation is concerned about the how adverse effects on the water may affect plant-based traditional and cultural activities.</p> <p>Sagkeeng First Nation is concerned that the presence of the channels and the permanent drawdown required to manage bedrock pressures will affect high-value vegetation.</p> <p>Sagkeeng First Nation is concerned that the Proponent does not address concerns that Indigenous groups have identified in respect of the Project, including impacts to vegetation growth</p>	<p><u>Plant Species identified by Sagkeeng First Nation:</u> lily pad, cedar, sweetgrass</p> <p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, weke, giant hyssop, baneberry, speckled alder, Saskatoon berry, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugle-weed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> Portions of Lake Manitoba are within the PDA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>Manitoba Infrastructure acknowledges that the information about use of plants and plant harvesting by Sagkeeng First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use plants and plant harvesting by Sagkeeng First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Sagkeeng First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component. The RVMP includes weed control measures and herbicide application (e.g., glyphosate) will be required in some instances. Integrated approaches using mechanical treatment and active revegetation will be used where possible. Areas of existing weed infestation will likely require broadcast herbicide application. Herbicide application will not occur within 30 m of waterbodies and fish habitat and will be handled under a pesticide permit.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>and ability to harvest medicines, loss of berry plants, concerns about the use of glyphosate for weed control, and loss of harvesting areas.</p> <p>Sagkeeng First Nation is concerned that the Project is a continuation of rights curtailment and a contribution to existing cumulative effects and has location-specific impacts. Sagkeeng First Nation members are particularly concerned about how the Project will impact plant and plant harvesting, cultural resources, and cultural connections to place.</p> <p>Manitoba Infrastructure provided a summary of secondary sources used in regulatory reporting for the Project to Sagkeeng First Nation for review and comment. Sagkeeng First Nation has informed Manitoba Infrastructure they do not consider the secondary sources to fully reflect Sagkeeng First Nation's perspectives, knowledge and values and have submitted a consultation report to Manitoba Infrastructure.</p> <p><u>Sources:</u> MMTP 2015 Sagkeeng O-Pimatiziiwin 2 2016 PFN, SBOFN and SFN 2019 SFN 2020 PFN, SBOFN and SFN 2021 SFN 2021 SFN 2022a SFN and SBOFN 2022a</p> <p>Manitoba Infrastructure Indigenous Engagement Program</p>			<p>and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2).</p> <ul style="list-style-type: none"> Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by</p>	<p>(Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Sagkeeng First Nation to discuss the Environmental Management Plans. A meetings was held with Sagkeeng First Nation on the following date: March 2, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Feedback was received from Sagkeeng First Nation in May of 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities,</p>

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			Indigenous peoples will continue to be available and accessible within the RAA.	<p>including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Sagkeeng First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p><u>Issues and Concerns:</u></p> <p>Sagkeeng First Nation is concerned that the Project could put up barriers to members being able to access hunting areas.</p> <p>Sagkeeng First Nation is concerned with impacts to hunting and harvesting rights, including access and navigation.</p> <p>Sagkeeng First Nation is concerned about how the loss of access to traditional activities will impact their culture in the future.</p> <p>Manitoba Infrastructure provided a summary of secondary sources used in regulatory reporting for the Project to Sagkeeng First Nation for review and comment. Sagkeeng First Nation has informed Manitoba Infrastructure they do not consider the secondary sources to fully reflect Sagkeeng First</p>	<p><u>Locations:</u> No specific travel routes within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about location of travel routes identified by Sagkeeng First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for travel routes by Sagkeeng First Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other</p>

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<p>Nation's perspectives, knowledge and values and have submitted a consultation report to Manitoba Infrastructure.</p> <p><u>Sources:</u></p> <p>PFN, SBOFN and SFN 2021</p> <p>SFN 2021</p>		<p>to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting</p>	<ul style="list-style-type: none"> • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. • As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><u>Residual Effects after Mitigation:</u> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed at specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning and follow up studies, Manitoba Transportation and Infrastructure. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Sagkeeng First Nation to discuss the Environmental Management Plans. A meeting was held with Sagkeeng First Nation on the following date: March 2, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Feedback was received from Sagkeeng First Nation in May of 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and</p>

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		<p>upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>		<p>stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about travel routes that Sagkeeng First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Habitation, Cultural and Spiritual Sites				
<p><u>Existing Conditions:</u></p> <p>Sagkeeng First Nation reported that there are cultural sites that may be impacted by the Project; however, they prefer to keep the locations confidential.</p> <p>Sagkeeng First Nation reported that due to their nomadic nature, there are also burial sites scattered throughout all of their traditional territory, possibly in the Project location.</p> <p>Sagkeeng First Nation reported that there are multiple islands in Lake Winnipeg, Lake Manitoba, and Lake St. Martin where people gathered to practice their ceremonies in private. Such places are sacred to Sagkeeng First Nation.</p> <p>Sagkeeng First Nation stated that Sagkeeng First Nation's ancestors moved freely throughout the area for generations - hunting, harvesting, attending ceremony and more - it is very therefore likely that there are cultural resources in the Project area that are connected to Sagkeeng First Nation ancestors. Sagkeeng First Nation continue to have a deep connection to the Project area through family relationships, historical use, and other relational connections that have the potential to be adversely affected by the Project.</p> <p><u>Issues and Concerns:</u></p> <p>Sagkeeng First Nation expressed concerns about the Projects impacts on cultural and spiritual sites including burial grounds, artefacts.</p> <p>Manitoba Infrastructure provided a summary of secondary sources used in regulatory reporting for the Project to Sagkeeng First Nation for review and comment. Sagkeeng First Nation has informed Manitoba Infrastructure they do not consider the secondary sources to fully reflect Sagkeeng First Nation's perspectives, knowledge and values and have submitted a consultation report to Manitoba Infrastructure .</p> <p>Sagkeeng First Nation expressed concerns about the barrier created between lake Manitoba and Lake Winnipeg isolating First Nation communities.</p> <p>Sagkeeng First Nation is concerned about the impacts the Project has on cultural and spiritual areas, and traditional resources.</p> <p>Sagkeeng First Nation is concerned that Project-related changes in water levels, including reduction in water levels, has the potential to interact with other elements of cultural heritage, including use values and associated spiritual and cultural values. For example, the heritage value of islands understood as sanctuaries from predation for culturally-important species may be adversely affected by lower water levels, which could</p>	<p><u>Locations:</u> Lake St. Martin is in the PDA. Portions of Lake Winnipeg and Lake Manitoba are in the PDA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Apart from the two known cemeteries, no burials or unmarked graves have been identified or reported in the RAA. Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources. Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> The HRIA identified existing or potential sites and prescribes site specific mitigation. The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. The EPP identifies specific existing and potential sites and specific measures to protect them. The AMP controls access around the Project construction area. Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Sagkeeng First Nation to discuss the Environmental Management Plans. A meetings was held with Sagkeeng First Nation on the following date: March 2, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in</p>

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<p>increase access for wolves, and increase wolf predation. The Proponent has made no attempt to meaningfully engage with Sagkeeng First Nation to identify the cultural heritage values on islands and how they may be adversely affected by the Project.</p> <p>Sagkeeng First Nation is concerned that the Project is a continuation of rights curtailment and a contribution to existing cumulative effects and has location-specific impacts. Sagkeeng First Nation members are particularly concerned about how the Project will impact water levels, water quality (which is already especially vulnerable given cumulative effects on water quality), aquatic habitat and aquatic life health, fish and fish habitat, fishing quality and quantity, plant and plant harvesting, wildlife habitat and hunting, and cultural resources and cultural connections to place.</p> <p>Sagkeeng First Nation is concerned that Manitoba Transportation and Infrastructure's assessment of potential Project effects on cultural heritage has excluded consideration of how the operation of the Project will affect water levels in the shores of Lake Winnipeg. Sagkeeng First Nation has lived and interacted in this area for generations and has many cultural heritage values that could be affected by the Project. The Project is part of Manitoba Transportation and Infrastructure's Integrated Flood Management system, which acts as a continuing project that actively affects Sagkeeng's rights and interests.</p> <p>Sagkeeng First Nation is concerned that baseline information was lacking for cultural heritage prior to the IR. No baseline information has been collected by Manitoba Transportation and Infrastructure since the IRs were issued, and therefore there is none provided to support Manitoba Transportation and Infrastructure's responses or predictions related to how the Project will affect Sagkeeng First Nation's cultural heritage. Cultural heritage studies have been limited to physical cultural heritage and has not considered intangible cultural heritage values including use of the area, or cultural or spiritual values that may be directly or indirectly affected by the Project and cumulative effects causing agents. Intangible aspects of Sagkeeng First Nation cultural heritage are active today and are important to consider.</p> <p>Sagkeeng First Nation is concerned about potential impacts to natural heritage sites like lakes and rivers. Sagkeeng First Nation have a deep connection to the lands and waters around the Project area. Water is considered sacred to Sagkeeng First Nation and is seen as the lifeblood of the community and all of creation. Ancestral Anicinabe laws hold that water flows naturally and "will find a way". The name "Sagkeeng" refers to the mouth of the river, meaning "where the water widens" in our language.</p>		<p>and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>		<p>addition to exploring opportunities for Indigenous training and participation in monitoring program. Feedback was received from Sagkeeng First Nation in May of 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition</p>

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<p>Sagkeeng First Nation has stated there is concern that Sagkeeng First Nation connection to the land and sense of place will disappear because of the proposed Project. The loss of access to fishing, hunting and harvesting traditional plants can have long term impacts on cultural transmission and longevity.</p> <p>Sagkeeng First Nation is concerned that definition of cultural use area and associated indicators was developed without the input of Sagkeeng. The definition of cultural use area and indicators in the HRIA report should have been defined with Sagkeeng. Sagkeeng is also concerned that the absence of Sagkeeng Knowledge holders on the ground in the assessment of sites has potentially meant that important cultural use areas have been overlooked.</p> <p>Sagkeeng First Nation is concerned that Manitoba Transportation and Infrastructure has not sufficiently addressed Sagkeeng First Nation's connection to the Project area and right to cultural continuity.</p> <p>Sagkeeng First Nation regards Manitoba Transportation and Infrastructure consultation concerning culture and heritage to be inadequate.</p> <p>Sagkeeng First Nation considers Manitoba Transportation and Infrastructure's approach to the HRIA or reflects a top-down colonial perspective.</p> <p>Sagkeeng First Nation considers Manitoba Transportation and Infrastructure's identification of impacts to Sagkeeng First Nation's cultural heritage and cultural Rights to be inadequate</p> <p>Recommendations made by Sagkeeng First Nation:</p> <ul style="list-style-type: none"> Sagkeeng First Nation recommends that the Proponent identify plans to meaningfully engage with Sagkeeng First Nation to incorporate its Indigenous Knowledge into the assessment of potential effects of the Project on physical and cultural heritage on islands within Lake St. Martin and Lake Winnipeg Sagkeeng First Nation requests that the Proponent describe potential effects of the Project on physical and cultural heritage on islands located within Lake St. Martin and Lake Winnipeg, including potential effects on cultural activities, cultural transmission and other aspects of intangible cultural heritage and including how Sagkeeng First Nation will be involved in developing and implementing monitoring and follow-up programs. Sagkeeng First Nation requests that the Proponent identify how the Proponent will meaningfully collaborate with Sagkeeng First Nation to interpret, mitigate, and manage the heritage sites identified in the HRIA and any heritage sites subsequently discovered. 				<p>to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Sagkeeng First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<ul style="list-style-type: none"> • Sagkeeng First Nation requests that the Proponent describe how Sagkeeng First Nation will be involved in handling of artifacts/heritage resources discovered during the development and implementation of specific mitigation measures. • Sagkeeng First Nation requests that the Proponent describe how Sagkeeng First Nation will be involved in the development and implementation of monitoring programs that will be undertaken during construction in areas of high archaeological potential (including areas identified by Sagkeeng First Nation as having high archaeological potential) • Sagkeeng First Nation requests that the Proponent identify the role of Sagkeeng First Nation in interpreting the cultural and regional significance of any site relative to other heritage sites found in the region. • Sagkeeng First Nation request that the Proponent indicate how Sagkeeng First Nation would be notified or involved in heritage mitigation measures in the event of a channel breach. • Sagkeeng First Nation requests that further information be provided on the methods used to identify trails and potential burial sites for investigation. • Sagkeeng First Nation requests that Manitoba Transportation and Infrastructure to commit to supporting Sagkeeng involvement concerning methods and information gathering for the identification of important trails and potential burial sites. <p><u>Sources:</u> PFN, SBOFN and SFN 2019 SFN 2020 PFN, SBOFN and SFN 2021 SFN 2021 SFN 2022a SFN 2022b SFN 2022c SFN and SBOFN 2022a</p>				

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<p>Sandy Bay Ojibway First Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p><u>Existing Conditions:</u> Sandy Bay Ojibway First Nation reported hunting deer, moose and duck. Sandy Bay Ojibway First Nation reported trapping at Duck Mountain and Hollywood Beach. Sandy Bay Ojibway First Nation reported that lands around Sandy Bay are no longer as fruitful for hunting and harvesting, and hunters and trappers have to travel further away to hunt and trap successfully, which can be costly. Sandy Bay Ojibway First Nation reported that the flood (2011) and the Government of Manitoba's hydro related developments have led to a loss of land and resources, which have impacted the ability for Sandy Bay to safely hunt, and peacefully enjoy their traditional territory. <u>Issues and Concerns:</u> Sandy Bay Ojibway First Nation is concerned with Project impacts to hunting (wildlife, wildlife habitat, access, navigation). Sandy Bay Ojibway First Nation expressed concern that the Project will negatively impact wildlife habitat in the Project Area, which could impact the number of wildlife that moves into their hunting areas. Sandy Bay Ojibway First Nation also noted that migratory birds and deer are especially vulnerable. Sandy Bay Ojibway First Nation are concerned that the barrier the Project will create, from Lake Manitoba to Lake Winnipeg, will impede the free flow of terrestrial wildlife. Sandy Bay Ojibway First Nation are concerned that the animals that rely on the waterways to sustain their way of life will decrease in abundance. Sandy Bay Ojibway First Nation is concerned about how the Project will affect waterfowl. Manitoba Infrastructure provided a summary of secondary sources used in regulatory reporting for the Project to Sandy Bay Ojibway First Nation for review and comment. Sandy Bay Ojibway First Nation has informed Manitoba Infrastructure they do not consider the secondary sources to fully reflect Sandy Bay Ojibway First Nation's perspectives, knowledge and values and have submitted a consultation report to Manitoba Infrastructure.</p>	<p><u>Species identified by Sandy Bay Ojibway First Nation: deer, duck, moose</u> <u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> mule deer, white-tailed deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, muskrat, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge. <u>Locations: Portions of Lake Winnipeg and Lake Manitoba are in the PDA. Hollywood Beach and Duck Mountain are outside of the RAA.</u></p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use. Manitoba Infrastructure acknowledges that the information about hunting and trapping by Sandy Bay Ojibway First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Sandy Bay Ojibway First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Sandy Bay Ojibway First Nation. While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively. The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife species – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA. Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances. Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas. In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project. For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component. During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups. Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7). As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups</p>

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<p>Sandy Bay Ojibway is concerned about migratory bird habitat and the degradation of aquatic habitat and wetlands, including retraction in size and area.</p> <p>Sandy Bay Ojibway is concerned about changes to flow volumes and flow velocities through the Narrows and in the Dauphin River that support local movement and the seasonal habitat of migratory birds.</p> <p>Sandy Bay Ojibway is concerned about changes to fish and fish habitat in Lake St. Martin that support the seasonal habitat of migratory birds.</p> <p>Sandy Bay Ojibway is concerned about the Project's effects on wildlife mortality</p> <p>Sandy Bay Ojibway is concerned that the LAA of 1km is not sufficiently conservative to capture the zone of influence for species of importance to Indigenous groups, such as moose. that the Considering this uncertainty, the reliance on this and the importance of local moose abundance for the practice of Sandy Bay Ojibway First Nation's hunting rights, the proponent should apply a LAA that is more conservative than 1km.</p> <p>Sandy Bay Ojibway is concerned that vegetation clearing associated with the Project transmission line has the potential to cause other adverse effects not described by the Proponent (e.g. direct habitat loss/alteration for some migratory bird species). Edge effects may also influence bird reproduction and survival through increased nest predation and competition with edge-loving species for access to suitable nesting cavities. This should be taken into consideration for the Proponent's characterization of the potential effects of the transmission line on migratory birds and SAR.</p> <p>Sandy Bay Ojibway is concerned that the Proponent is dismissing Project-related effects on bat hibernacula because potential features occur outside of the Project's 1km LAA.</p> <p>Sandy Bay Ojibway is concerned about how culturally important wildlife species will navigate riprap armoring.</p> <p>Sandy Bay Ojibway is concerned that the Proponent does not assess the effects of changes to habitat on non-migratory birds with a focus on species of cultural importance.</p> <p>Sandy Bay Ojibway is concerned about increased wolf predation of ungulates in the vicinity of the LSMOC right-of way and the LSMOC Access Road.</p> <p><u>Recommendations made by Sandy Bay Ojibway First Nation</u></p> <ul style="list-style-type: none"> Sandy Bay Ojibway First Nation recommended that the proponent apply a LAA that is more conservative than 1km. Sandy Bay Ojibway First Nation requests a quantitative analysis of effects of habitat change on non-migratory bird species. This assessment should consider both direct and 		<p>to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>ROW and not extend beyond the PDA (Chapter 8, Section 8.2).</p> <ul style="list-style-type: none"> Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Clearing will not occur between April 1 and August 31 to avoid disturbance to nesting birds and other wildlife (Chapter 8, Section 8.3). Terrestrial buffers, as identified by the Manitoba Conservation Data Centre's Recommended Development Setback Distances from Birds and/or MSDs Forest Management Guidelines for Terrestrial Buffers will be adhered to for all applicable sites (Chapter 8, Section 8.3; PERS, Section 2.9.1). If construction is scheduled to occur within the nesting period for owls and raptors (March 1 to August 31), a nest survey may be conducted by a qualified wildlife biologist if warranted. In the event an active nest is found, it will be subject to site-specific mitigation measures (i.e., clearly marked protective buffer around the nest and/or non-intrusive monitoring) (Chapter 8, Section 8.3). <p>The Red-headed Woodpecker and Eastern Whip-poor-will Habitat Mitigation Plans are not intended to be offset or compensation plans, but instead are species-specific habitat enhancement plans. The Red-headed Woodpecker Habitat Mitigation Plan includes measures to enhance the edges of the LMOC with shrubs and snags that will benefit not only red-headed woodpecker, but also other wildlife including species of cultural importance such as grouse, snowshoe hare, and red fox. Along the LSMOC, the Eastern Whip-poor-will Habitat Mitigation Plan describes how shrub and tree cover plantings will be added to the edges of the ROW</p>	<p>engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Sandy Bay Ojibway First Nation to discuss the Environmental Management Plans. A meeting was held with Sandy Bay Ojibway First Nation on the following date: March 26, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Feedback was received from Sandy Bay Ojibway First Nation in May of 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force</p>

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<p>indirect effects and focus on culturally important species (or groups of species or focal species) identified through engagement with Sandy Bay Ojibway First Nation.</p> <ul style="list-style-type: none"> Sandy Bay Ojibway First Nation requests that the Proponent provide a full quantitative accounting of direct and indirect habitat fragmentation, by species of cultural importance (or groupings of species or focal species representative of culturally important species as determined in discussion with Sandy Bay Ojibway First Nation. Sandy Bay Ojibway First Nation requests that the Proponent work with Sagkeeng First Nation and other affected Indigenous groups to develop a comprehensive list of culturally important species to be included in the effects assessment, including if and how such species can be represented by focal or surrogate species in the effects assessment Sandy Bay Ojibway First Nation requests that the Proponent work with Sandy Bay Ojibway First Nation and other affected Indigenous groups to characterize the baseline conditions, change over time trajectories and carry out a effects assessment and significance determination for each identified culturally important species (and/or agreed to focal or surrogate species). Sandy Bay Ojibway First Nation requests that the Proponent provide a supplementary submission that provides details in respect to project-related fish and wildlife mortality resulting from shoreline inundation, and changes water levels, in the south basin of Lake St. Martin during and after project-related flood management activities; lake level reductions in the north basin of Lake St. Martin during non-flood periods and drought periods. Sandy Bay Ojibway First Nation requests that the Proponent provide a supplementary submission that provides details in respect to increased wolf predation of ungulates in the vicinity of the LSMOC right-of way and the LSMOC Access Road. Sandy Bay Ojibway First Nation requests that the Proponent provide a supplementary submission that that provides an analysis of the project's linear features effect on wildlife mortality and the subsequent impact on Indigenous land use. Sandy Bay Ojibway First Nation requests that the Proponent describe potential effects of the Project to the size and extent of riparian and wetland habitats due to sustained reductions in lake water levels and the intersection of the outlet channels with local drainages. 			<p>where upland habitat (i.e., forest) exists. These plantings will provide habitat for eastern whip-poor-will and other animals including birds and furbearers.</p> <p>Manitoba Transportation and Infrastructure will comply with the Migratory Birds Convention Act, 1994 and follow prohibitions, including, but not limited to, avoiding the deposition of harmful substances in wetlands frequented by migratory birds (see IAAC-50).</p> <p>Additionally, BMPs described in the PERs and CEMP will be applied to all Project components and will include plans for hazardous material transportation and management, emergency response (i.e., spills), dust control, working in or near water, petroleum storage and equipment fueling and servicing, and erosion and sedimentation control. The PERs and the draft Dust Control Plan (see Attachment 1 – Updated Environmental Management Plans) stipulate dust control application requirements and the PERs and Manitoba Environmental Accident Reporting Regulation stipulate reporting requirements and response measures for hydrocarbons and other products (e.g., see PER 2.5.2; Attachment 1 – Updated Environmental Management Plans). The road will be operated and maintained in a manner consistent with Manitoba Transportation and Infrastructure’s practice for the current PR 239 and other public roads throughout the Province of Manitoba. Based on the mitigation measures and BMPs described above, and the limited interaction of the road realignment with wetland habitat, potential effects can be avoided or reduced.</p> <p>Design updates, including armouring of the channels, are addressed primarily in IAAC-38.</p> <p>Part a) of the formal response to IAAC-122 explains how TLRU information was incorporated into the environmental assessment process for the Project.</p> <p>A fulsome list of culturally important wildlife species identified by Sandy Bay Ojibway First Nation through the Indigenous consultation and engagement program or a review of publicly available literature is available in IAAC-87 (Table 87-1).</p> <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat</p>	<p>requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project as outlined in the ICSE (see Attachment 3 - Engagement and Consultation Updates), Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Sandy Bay Ojibway First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<ul style="list-style-type: none"> Sandy Bay Ojibway First Nation requests that the Proponent provide a supplementary memo that provides analysis and descriptions of potential Project effects of sustained reductions in water levels in the north basin of Lake St. Martin, and continued variability of water levels in the south basin of Lake St. Martin, to wetland size, water levels, plant community composition, and water quality in relation to the breeding, nesting, and rearing activities of migratory birds. Sandy Bay Ojibway First Nation requests that the Proponent describe how the risk of mortality of overwintering or denning non-SAR will be avoided and/or mitigated, including consideration of pre-construction surveys and identifying species-specific measures (e.g., avoidance windows and setback distances). Sandy Bay Ojibway First Nation requests that the Proponent provide the specific location of potential bat hibernacula features so Sandy Bay Ojibway First Nation can complete a more fulsome assessment of the Project's potential to adversely affect it. <p>Sources: PFN, SBOFN and SFN 2019 SBOFN 2020 PFN, SBOFN and SFN 2021 SBOFN 2021 SFN and SBOFN 2022a</p>			<p>available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u> Sandy Bay Ojibway First Nation reported fishing sauger and pickerel (walleye), whitefish. Sandy Bay Ojibway First Nation reported that changes to water quality affects the health of the ecosystem, and noted the importance of maintaining the marshes for the health of the water. Sandy Bay Ojibway First Nation reported the 2011 flood and the Government of Manitoba's hydro-related developments have led to a loss of clean drinking water for the community. Sandy Bay Ojibway First Nation reported that the flood (2011) and the Government of Manitoba's hydro related developments have led to a loss of land and resources, which have impacted the ability for Sandy Bay to safely fish, and peacefully enjoy their traditional territory. Sandy Bay Ojibway First Nation reported that they have observed changes in fish health in the lakes.</p>	<p><u>Species identified by Sandy Bay Ojibway First Nation:</u> sauger, pickerel, whitefish <u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye. <u>Locations:</u> Portions of Lake Manitoba, Lake Winnipeg and Lake St. Martin are in the PDA. The Buffalo Creek watershed is in the PDA. Sturgeon Bay is in the PDA. The Fairford River is in the PDA. The Dauphin River is in the LAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use. Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by Sandy Bay Ojibway First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Sandy Bay Ojibway First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Sandy Bay Ojibway First Nation.</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project. For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such as water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP. The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Sandy Bay Ojibway First Nation reported that the water is not potable.</p> <p>Sandy Bay Ojibway First Nation reported they have seen declines in water quality since the 2011 flood, noting a change in water colour and clarity and an increase in debris and algae.</p> <p><u>Issues and Concerns:</u></p> <p>Sandy Bay Ojibway First Nation are concerned with Project impacts to water and Sandy Bay fishing rights (fish, fish habitat, safety).</p> <p>Sandy Bay Ojibway First Nation expressed concern with seeing spots on fish.</p> <p>Sandy Bay Ojibway First Nation expressed concern about fish health.</p> <p>Sandy Bay Ojibway First Nation are particularly concerned about the potential changes to lake levels of Lake Manitoba due to changes in the regulations that impact the t Lake Manitoba Outlet Channel Operating Guidelines.</p> <p>Sandy Bay Ojibway First Nation is concerned about the potential adverse effects of the Project on water quality chemistry, levels, and flow of in Lake Manitoba.</p> <p>Sandy Bay Ojibway First Nation are concerned with the quality of water that will be flowing into Lake Manitoba and the potential increase of algae blooms.</p> <p>Sandy Bay Ojibway First Nation expressed concerns regarding invasive species, including zebra mussels) moving through the channels.</p> <p>Sandy Bay Ojibway First Nation commercial fishers expressed concern that changes to water levels and construction may impact spawning grounds and shoreline habitat for fish.</p> <p>Sandy Bay Ojibway First Nation expressed concern regarding the potential physical health impacts that might come from mercury poisoning in the water.</p> <p>Sandy Bay Ojibway First Nation is concerned about how the Project will affect drinking water.</p> <p>Sandy Bay Ojibway First Nation is concerned about how the Project will affect the groundwater input and flow regime.</p> <p>Sandy Bay Ojibway First Nation is concerned about the insufficient water quality data for Lake Manitoba, Lake St. Martin, and Lake Winnipeg and none for minor lakes and wetlands. This also includes a lack of metal water quality data for surface or groundwater.</p> <p>Sandy bay Ojibway First Nation is concerned about the fish spawning areas.</p>		<p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and</p>	<p>summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43).</p> <ul style="list-style-type: none"> • Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. • Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. 	<p>two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Sandy Bay Ojibway First Nation to discuss the Environmental Management Plans. A meeting was held with Sandy Bay Ojibway First Nation on the following date: March 26, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Feedback was received from Sandy Bay Ojibway First Nation in May of 2021.</p>

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<p>Sandy Bay Ojibway First Nation is concerned on the Projects impact on groundwater as it relates to fish and fish habitat.</p> <p>Sandy Bay Ojibway First Nation expressed concern over the impact of the Project on the lake setup of Lake Manitoba and Lake Winnipeg, which can cause increases in wave height.</p> <p>Sandy Bay Ojibway First Nation expressed concern about the possible dewatering of the dens and minor lakes along the Project's preferred route.</p> <p>Sandy Bay Ojibway First Nation is concerned that turbidity of water will affect water quality.</p> <p>Sandy Bay Ojibway First Nation is concerned about the transmission of E.coli to Lake Manitoba.</p> <p>Sandy Bay Ojibway First Nation is concerned about waterbodies may be affected by algae, especially blue-green algae.</p> <p>Sandy Bay Ojibway Nation is concerned about the likelihood of health risks on Indigenous land users that continue to make use of known drinking water locations that may be affected by the Project.</p> <p>Sandy Bay Ojibway First Nation is concerned that the Proponent has made no there is no mention of how the groundwater monitoring wells will be secured and protected from damage or tampering.</p> <p>Sandy Bay Ojibway First Nation is concerned with the potential for metal leaching from the unconsolidated sediments above the bedrock has not been addressed. Exposure of these sediments to oxygen could result in mineral weathering and release of potentially harmful trace elements into waters draining into the channel alignments.</p> <p>Sandy Bay Ojibway First Nation is concerned that the proponent has not addressed the concern related to the channel construction and the anticipated drawdown effect on the water table as this relates to the discharge of constituent-laden groundwater to the channels.</p> <p>Sandy Bay Ojibway First Nation is concerned about methylmercury increases when areas are dried out and then rewetted. Sandy Bay Ojibway First Nation is concerned about this future risk to its members and to the negative perception that fish will be unhealthy. Sandy Bay Ojibway First Nation is also concerned that harvesters will think the Project will increase health risks associated with fish consumption, which could reduce TLRU activities or cultural practices in the area.</p> <p>Sandy Bay Ojibway First Nation is concerned that 50% of the drainage is expected to be reduced in Buffalo Creek watershed.</p> <p>Sandy Bay Ojibway First Nation has concerns related to how changes in local drainage and water flow will affect water</p>		<p>deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<ul style="list-style-type: none"> All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. The majority of Project channel excavation and construction will be conducted "in the dry" and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. 	<p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p>

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<p>quality for supporting a viable rights-based and commercial fishery, as well as supporting other social and cultural uses of Lake St. Martin and Sturgeon Bay in Lake Winnipeg. These project-related concerns are exacerbated by existing concerns of cumulative effects (e.g., impacts of agriculture, alterations in the natural flow rates and water levels, changes to fish health, increased nutrient loading, and overall water quality).</p> <p>Sandy Bay Ojibway First Nation is concerned that the Proponent does not provide adequate information regarding water storage loss due to removal of wetlands for the Project.</p> <p>Sandy Bay Ojibway First Nation has concerns regarding nutrient loading.</p> <p>Sandy Bay Ojibway First Nation has concerns regarding fish passage, fish stranding, migratory movements and movement.</p> <p>Sandy Bay Ojibway First Nation has concerns regarding sediment transport and erosion.</p> <p>Sandy Bay Ojibway First Nation has concerns regarding reduction of lake levels in the north basin of Lake St. Martin and potential whitefish migratory disruption through the Dauphin River,</p> <p>Sandy Bay Ojibway First Nation has concerns regarding heightened differential of lake levels between the south and north basins of Lake St. Martin during channel operations, as a result of the Narrows serving as a hydraulic control,</p> <p>Sandy Bay Ojibway First Nation has concerns regarding flow velocity and turbidity changes at the Narrows, revised modelling for which has not been validated or verified, and impacts on whitefish spawning habitat at the Narrows</p> <p>Sandy Bay Ojibway First Nation has concerns regarding the potential loss of fish larvae to the LSMOC right after hatching, removes these fish from their rearing habitat.</p> <p>Sandy Bay Ojibway First Nation has concerns that fish passage may be altered as a result of Project design changes, as well as from flow path changes and reduced flows in the Fairford and Dauphin Rivers.</p> <p>Sandy Bay Ojibway First Nation has concerns that there will be an effect on fish mortality particularly through the LSMOC, and spawning success will likely be affected, especially for whitefish, at the Narrows in Lake St. Martin.</p> <p>Sandy Bay Ojibway First Nation has stated that the Project will have a direct impact on lands and waterbodies that have historically been used by Sandy Bay Ojibway First Nation for harvesting and cultural practices, this disruption will have a direct impact on their continued use of these lands.</p> <p>Sandy Bay Ojibway Nation stated that a change resulting from a reduction in flow and thus erosion and sediment transport</p>			<p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p>Measures to avoid or reduce effects to commercial fishing are identified in the CEMP and include:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will engage with commercial fish harvesters, anglers, local resource users, and MSD Regional Officials to address potential conflict, disturbance, or access restrictions to fishing/harvesting areas in the PDA and LAA, and availability of fish resources. <p>The response to IAAC-05 identifies mitigation measure/s to limit the impacts of leaching of metals from unconsolidated sediments.</p> <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER, the Summary of Concerns and the Engagement Narrative (provided in Attachment 3). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Sandy Bay Ojibway First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>capability will affect the composition of the alluviums forming the bed of the river and therefore could have a significant effect on the rivers' habitats. This in turn, has the potential to cause substantial adverse impacts to the rights-based fishery in Lake St. Martin and Sturgeon Bay that Indigenous groups rely upon for reasonable livelihood, cultural continuity, and cultural identity.</p> <p>Sandy Bay Ojibway Nation stated that their experts believe that the redesign of the inlet will have a major impact on the dynamics of currents, erosion, bed sediments and turbidity in the North Basin of Lake St. Martin. In turn, this may have grave consequences for the health of the fish and fish habitat of Lake St. Martin.</p> <p><u>Recommendations made by Sandy Bay Ojibway First Nation:</u></p> <ul style="list-style-type: none"> • Sandy Bay Ojibway First Nation recommends that the community be involved in monitoring programs. • Sandy Bay Ojibway First Nation recommends that the community be engaged on managing water levels and timing of water level management. • Sandy Bay Ojibway First Nation requests that the Proponent provide a supplementary submission that provides details in respect to project-related fish and wildlife mortality resulting from shoreline inundation, and changes water levels, in the south basin of Lake St. Martin during and after project-related flood management activities; lake level reductions in the north basin of Lake St. Martin during non-flood periods and drought periods, • Sandy Bay Ojibway First Nation requests that the Proponent describe potential effects of the Project to the size and extent of riparian and wetland habitats due to sustained reductions in lake water levels and the intersection of the outlet channels with local drainages. • Sandy Bay Ojibway First Nation requests that the Proponent provide a supplementary memo that provides analysis and descriptions of potential Project effects of sustained reductions in water levels in the north basin of Lake St. Martin, and continued variability of water levels in the south basin of Lake St. Martin, to wetland size, water levels, plant community composition, and water quality in relation to the breeding, nesting, and rearing activities of migratory birds. <p>Manitoba Infrastructure provided a summary of secondary sources used in regulatory reporting for the Project to Sandy Bay Ojibway First Nation for review and comment. Sandy Bay Ojibway First Nation has informed Manitoba Infrastructure they do not consider the secondary sources to fully reflect Sandy Bay Ojibway First Nation's perspectives, knowledge and</p>				

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<p>values and have submitted a consultation report to Manitoba Infrastructure.</p> <p><u>Sources:</u></p> <p>SBOFN 2018</p> <p>PFN, SBOFN and SFN 2019</p> <p>SBOFN 2020</p> <p>PFN, SBOFN and SFN 2021</p> <p>SBOFN 2021</p> <p>SFN and SBOFN 2022a</p> <p>SFN and SBOFN 2022b</p> <p>SFN and SBOFN 2022c</p> <p>Interlake First Nations, Sagkeeng First Nation, and Sandy Bay Ojibway First Nation. 2022.</p>				
Plants and Plant Harvesting				
<p><u>Existing Conditions:</u></p> <p>Sandy Bay Ojibway First Nation reported difficulty in finding Wee'ke (rat root), mint, sweetgrass and maple.</p> <p>Sandy Bay Ojibway First Nation reported that their ability to harvest plants is particularly vulnerable because of existing pressures and loss of areas where traditional plants grow.</p> <p>Sandy Bay Ojibway First Nation reported that high water levels are drowning the sweetgrass.</p> <p>Sandy Bay Ojibway First Nation reported that prior to the 2011 flood, there used to be culture camps on Hollywood beach; today, however, there are no medicines to look for.</p> <p>Sandy Bay Ojibway First Nation reported that people have to travel further away to pick their medicines.</p> <p>Sandy Bay Ojibway First Nation reported that the flood (2011) and the Government of Manitoba's hydro related developments have led to a loss of land and resources, which have impacted the ability for Sandy Bay to safely gather, and peacefully enjoy their traditional territory.</p> <p><u>Issues and Concerns:</u></p> <p>Sandy Bay Ojibway First Nation is concerned with Project impacts to harvesting rights, medicinal plants, berries and traditional plants.</p> <p>Sandy Bay Ojibway First Nation expressed concern about how the water levels will impact vegetation growth and their ability to harvest medicinal and traditional plants.</p>	<p><u>Plant species identified by Sandy Bay Ojibway First Nation:</u> sweetgrass, Wee'ke (rat root), maple and mint.</p> <p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugle-weed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>In the absence of specific information about location of plant harvesting sites and areas identified by Sandy Bay Ojibway First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Sandy Bay Ojibway First Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component. The RVMP includes weed control measures and herbicide application (e.g., glyphosate) will be required in some instances. Integrated approaches using mechanical treatment and active revegetation will be used where possible. Areas of existing weed infestation will likely require broadcast herbicide application. Herbicide application will not occur within 30 m of waterbodies and fish habitat and will be handled under a pesticide permit.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 -</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Sandy Bay Ojibway First Nation is concerned that plant-based traditional and cultural activities will be directly affected by adverse effects to water.</p> <p>Sandy Bay Ojibway First Nation is concerned that the presence of the channels and the permanent drawdown required to manage bedrock pressures will affect high-value vegetation.</p> <p>Sandy Bay Ojibway First Nation is concerned that the Proponent does not address concerns that Indigenous groups have identified in respect of the Project, including impacts to vegetation growth and ability to harvest medicines, loss of berry plants, concerns about the use of glyphosate for weed control, and loss of harvesting areas.</p> <p>Manitoba Infrastructure provided a summary of secondary sources used in regulatory reporting for the Project to Sandy Bay Ojibway First Nation for review and comment. Sandy Bay Ojibway First Nation has informed Manitoba Infrastructure they do not consider the secondary sources to fully reflect Sandy Bay Ojibway First Nation’s perspectives, knowledge and values and have submitted a consultation report to Manitoba Infrastructure.</p> <p><u>Sources:</u> SBOFN 2020 PFN, SBOFN and SFN 2021 SBOFN 2021 SFN and SBOFN 2022a</p>	<p>goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> No specific plant harvesting sites or locations within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<ul style="list-style-type: none"> The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be ‘softened’ as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). 	<p>Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7). As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Sandy Bay Ojibway First Nation to discuss the Environmental Management Plans. A meeting was held with Sandy Bay Ojibway First Nation on the following date: March 26, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Feedback was received from Sandy Bay Ojibway First Nation in May of 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring</p>

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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
			<ul style="list-style-type: none"> The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Sandy Bay Ojibway First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
Travel Routes				
<p><u>Issues and Concerns:</u></p> <p>Sandy Bay Ojibway First Nation is concerned with Project impacts to hunting (access, navigation).</p> <p>Sandy Bay Ojibway First Nation expressed concern that the Project will exacerbate erosion and land loss, and access.</p> <p>Sandy Bay Ojibway First Nation expressed concern that changing water levels of Lake Manitoba to a reduced water level of 810.5 has potential effects on ability to access the water, the shoreline, enjoyment of the lake, and safety on the lake. This could limit Sandy Bay members' ability to access the shoreline safely in summer and winter.</p> <p>Sandy Bay Ojibway First Nation expressed concern that reducing the water level of Lake Manitoba has potential effects on the ability for boats to navigate fishing areas.</p> <p>Manitoba Infrastructure provided a summary of secondary sources used in regulatory reporting for the Project to Sandy Bay Ojibway First Nation for review and comment. Sandy Bay Ojibway First Nation has informed Manitoba Infrastructure they do not consider the secondary sources to fully reflect Sandy Bay Ojibway First Nation's perspectives, knowledge and values and have submitted a consultation report to Manitoba Infrastructure.</p> <p><u>Sources:</u></p> <p>PFN, SBOFN and SFN 2021</p> <p>SBOFN 2021</p>	<p><u>Locations:</u> Portions of Lake Manitoba are in the PDA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>Manitoba Infrastructure acknowledges that the information about use of travel routes by Sandy Bay Ojibway First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of travel routes harvesting by Sandy Bay Ojibway First Nation to occur throughout the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. • As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Sandy Bay Ojibway First Nation to discuss the Environmental Management Plans. A meeting was held with Sandy Bay Ojibway First Nation on the following date: March 26, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous</p>

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		<p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed at specific locations. Resource users will be able to continue to travel in the area, but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>training and participation in monitoring program. Feedback was received from Sandy Bay Ojibway First Nation in May of 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions</p>

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<p>with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about travel routes that Sandy Bay Ojibway First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>				
<p>Habitation, Cultural and Spiritual Sites</p>				
<p><u>Existing Conditions:</u></p> <p>Sandy Bay Ojibway First Nation reported that the Project Area is a known important cultural site for Indigenous groups in the area.</p> <p>Sandy Bay Ojibway First Nation reported that prior to the 2011 flood, there used to be culture camps on Hollywood beach.</p> <p>Sandy Bay Ojibway First Nation reported that due to the community's mobile nature, burial sites and other important cultural sites are found throughout the territory, not just in their treaty area or near their reserve. This includes sites where ceremonies were practiced as well as burials sites.</p> <p>Sandy Bay Ojibway First Nation reported that Sandy Bay and some areas surrounding it are historical sites from first contact.</p> <p><u>Issues and Concerns:</u></p> <p>Sandy Bay Ojibway First Nation is concerned with Project impacts to cultural and spiritual sites including flooding or disturbance to burial grounds.</p> <p>Sandy Bay Ojibway First Nation is concerned that beach use may be affected by the Project.</p> <p>Sandy Bay Ojibway First Nation is concerned about the proximity of their cemetery to the lake, which was affected by the 2011 flood.</p> <p>Sandy Bay Ojibway First Nation is concerned about the Project's impact on cultural and spiritual areas, and traditional resources.</p> <p>Sandy Bay Ojibway First Nation is concerned that Project-related changes in water levels, including reduction in water levels, has the potential to interact with other elements of cultural heritage, including use values and associated spiritual and cultural values. For example, the heritage value of islands</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about location of habitation, cultural and spiritual sites and areas identified by Sandy Bay Ojibway First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for use of habitation, cultural and spiritual sites and areas by Sandy Bay Ojibway First Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15)</p>

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<p>understood as sanctuaries from predation for culturally-important species may be adversely affected by lower water levels, which could increase access for wolves, and increase wolf predation. The Proponent has made no attempt to meaningfully engage with Sandy Bay Ojibway First Nation to identify the cultural heritage values on islands and how they may be adversely affected by the Project.</p> <p>Recommendations made by Sandy Bay Ojibway First Nation:</p> <ul style="list-style-type: none"> Sandy Bay Ojibway First Nation recommends that the Proponent identify plans to meaningfully engage with Sandy Bay Ojibway First Nation to incorporate its Indigenous Knowledge into the assessment of potential effects of the Project on physical and cultural heritage on islands within Lake St. Martin and Lake Winnipeg Sandy Bay Ojibway First Nation requests that the Proponent describe potential effects of the Project on physical and cultural heritage on islands located within Lake St. Martin and Lake Winnipeg, including potential effects on cultural activities, cultural transmission and other aspects of intangible cultural heritage, and including how Sandy Bay Ojibway First Nation will be involved in developing and implementing monitoring and follow-up programs. Sandy Bay Ojibway First Nation requests that the Proponent identify how the Proponent will meaningfully collaborate with Sandy Bay Ojibway First Nation to interpret, mitigate, and manage the heritage sites identified in the HRIA and any heritage sites subsequently discovered. Sandy Bay Ojibway First Nation requests that the Proponent describe how Sandy Bay Ojibway First Nation will be involved in handling of artifacts/heritage resources discovered during the development and implementation of specific mitigation measures. Sandy Bay Ojibway First Nation requests that the Proponent describe how Sandy Bay Ojibway First Nation will be involved in the development and implementation of monitoring programs that will be undertaken during construction in areas of high archaeological potential (including areas identified by Sandy Bay Ojibway First Nation as having high archaeological potential) Sandy Bay Ojibway First Nation requests that the Proponent identify the role of Sandy Bay First Nation in interpreting the cultural and regional significance of any site relative to other heritage sites found in the region. Sandy Bay Ojibway First Nation request that the Proponent indicate how Sandy Bay Ojibway First Nation would be notified or involved in heritage mitigation measures in the event of a channel breach. 		<p>RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Apart from the two known cemeteries, no burials or unmarked graves have been identified or reported in the RAA. Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources. Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<p><i>Residual Effects after Mitigation:</i> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, effects on cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected. .</p>	<p>are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). Manitoba Transportation and Infrastructure has offered to meet with Sandy Bay Ojibway First Nation to discuss the Environmental Management Plans. A meeting was held with Sandy Bay Ojibway First Nation on the following date: March 26, 2021. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Feedback was received from Sandy Bay Ojibway First Nation in May of 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to</p>

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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Manitoba Infrastructure provided a summary of secondary sources used in regulatory reporting for the Project to Sandy Bay Ojibway First Nation for review and comment. Sandy Bay Ojibway First Nation has informed Manitoba Infrastructure they do not consider the secondary sources to fully reflect Sandy Bay Ojibway First Nation 's perspectives, knowledge and values and have submitted a consultation report to Manitoba Infrastructure.</p> <p><u>Sources:</u> SBOFN 2018 PFN, SBOFN and SFN 2019 PFN, SBOFN and SFN 2021 SBOFN 2021 SFN and SBOFN 2022</p>				<p>support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Sandy Bay Ojibway First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
<p>Seymourville Northern Affairs Community <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p>Manitoba Infrastructure has obtained no information about Seymourville Northern Affairs Community hunting or trapping or traditionally harvested species in the RAA through the Indigenous consultation and engagement program or a review of publicly available literature.</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> moose, mule deer, white-tailed deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, muskrat, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p> <p><u>Locations:</u> No specific hunting or trapping sites or locations used by Seymourville Northern Affairs Community within the RAA were identified through the Indigenous Consultation and Engagement</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>In the absence of specific information about current use by Seymourville Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping Seymourville Northern Affairs Community occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Seymourville Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive</p>

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	<p>Program for the Project or review of relevant secondary sources.</p>	<p>to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations.</p> <ul style="list-style-type: none"> • Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). • Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. • The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term</p>	<p>management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Seymourville Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p>

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			<p>persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Seymourville Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Aquatic Environment and Fishing				
<p><u>Issues and Concerns:</u></p> <p>Seymourville Northern Affairs Community is concerned with potential effects to Lake Winnipeg water levels.</p> <p>Seymourville Northern Affairs Community is concerned introduction of additional dirt, debris and microorganisms into Lake Winnipeg and the negative impact on water treatment processes and associated costs (EIS Appendix 5A.21).</p> <p>Seymourville Northern Affairs Community is concerned about the effects of Lake Winnipeg water levels on commercial fishing.</p> <p>Seymourville Northern Affairs Community is concerned about the impact of additional water to the community during storms.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement Program</p> <p>Manitoba Infrastructure Indigenous Engagement Program – Appendix 5A.5</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye.</p> <p><u>Locations:</u> Portions of Lake Winnipeg are within the PDA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about hunting and trapping by Black Seymourville Northern Affairs Community presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Seymourville Northern Affairs Community occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Seymourville Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread</p>	<p>Effects regarding sediments, debris, contamination/water quality are addressed in the SWMP, PERs, and SMP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Any storage and use of chemicals is strictly regulated and application of chemicals requires training and a permit. Implement measures for materials handling, waste handling and disposal and fuel handling and storage in designated areas located a minimum of 100 m from waterbodies and with secondary containment. Debris and materials shall be removed from the ice cover (over waterbodies) on an on-going basis, and disposed of in an appropriate landfill or other location. Sediments will be monitored, and visual inspections will be carried out as part of the SWMP and SMP and contingency mitigation measures such as silt fencing and materials to minimize bank erosion will be used, where necessary. The banks of the channel will be revegetated to reduce erosion. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. If required, at the start of operation, the water control structure gates can be gradually opened to control sediment levels, based on results of sediment monitoring. There will likely be increases in sediment concentrations at the end of the channel, but they will be managed to address water quality concerns through monitoring and flow adjustments. <p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized</p>

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		<p>such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<p>preventing upstream movement into the channel from Lake Winnipeg.</p> <ul style="list-style-type: none"> Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage 	<p>in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Seymourville Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force</p>

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			<p>will be erected limiting access to authorized personnel.</p> <ul style="list-style-type: none"> • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted “in the dry” and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. • Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). • To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and 	<p>requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about aquatic environment and fishing that Seymourville Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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			<p>dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible.</p> <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p>Measures to avoid or reduce effects to commercial fishing are identified in the CEMP and include:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will engage with commercial fish harvesters, anglers, local resource users, and MSD Regional Officials to address potential conflict, disturbance, or access restrictions to fishing/harvesting areas in the PDA and LAA, and availability of fish resources. <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	

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May 31, 2022

Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
Plants and Harvesting				
<p>Manitoba Infrastructure has obtained no information about Seymourville Northern Affairs Community plant harvesting or traditionally harvested plant species in the RAA has through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> No specific plant harvesting sites or locations used by Seymourville Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>In the absence of specific information about current use by Seymourville Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Seymourville Northern Affairs Community to occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Seymourville Northern Affairs Community.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and</p>

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			<p>restoration of vegetation cover in disturbed areas.</p> <ul style="list-style-type: none"> The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Seymourville Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition</p>

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				<p>to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSER (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Seymourville Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p>Manitoba Infrastructure has obtained no information about Seymourville Northern Affairs Community use of travel routes in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific travel routes used by Seymourville Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by Seymourville Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by Seymourville Northern Affairs Community to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel 	<p>The success of mitigation for travel routes will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups</p>

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		<p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>	<p>alignment will be on top of the containment dikes on either side of the excavated channel.</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Seymourville Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups</p>

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				<p>have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about travel routes that Seymourville Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p>Manitoba Infrastructure has obtained no information about Seymourville Northern Affairs Community use of habitation, cultural and spiritual sites in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations used by Seymourville Northern Affairs Community within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about habitation, cultural and spiritual sites and areas identified by Seymourville Northern Affairs Community in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Seymourville Northern Affairs Community to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. 	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated</p>

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		<p>directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><i>Residual Effects after Mitigation:</i> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>(Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Seymourville Northern Affairs Community to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the</p>

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<p>Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Seymourville Northern Affairs Community may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>				
<p>Skownan First Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping-</p>				
<p><u>Issues and Concerns:</u></p> <p>Skownan First Nation raised concerns regarding moose management and hunting prohibition of moose since 2011. The restrictions limit Skownan First Nation's access to the traditional harvesting of moose.</p> <p>Skownan First Nation are concerned about impacts to moose and rare birds. Skownan First Nation raised concerns regarding the protection of endangered species (especially lake waterfowl) on Lake Manitoba.</p> <p>Skownan First Nation is concerned about trapping on Lake Manitoba.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement for this Project</p>	<p><u>Species identified by Skownan First Nation:</u> moose, waterfowl.</p> <p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> moose, mule deer, white-tailed deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, muskrat, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them.</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
	<p><u>Locations:</u> Portions of Lake Manitoba are in the PDA.</p>	<p>This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<ul style="list-style-type: none"> As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. 	<p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were Detailed mitigation and monitoring program review discussions have been incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Skownan First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will</p>

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			<p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and as outlined in the ICSE (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Skownan First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Aquatic Environment and Fishing				
<p><u>Issues and Concerns:</u></p> <p>Skownan First Nation is concerned that commercial fishermen will be impacted the changing water levels on Lake Manitoba. Access to areas will be limited by high and low water levels on Lake Manitoba.</p> <p>Skownan First Nation is concerned about impacts to aquatic species on Lake Manitoba from the operation of the Project.</p> <p>Skownan First Nation expressed concerns regarding invasive species (including zebra mussels) moving through the channels.</p> <p>Skownan First Nation is concerned that water levels will frequently fluctuate causing erosion on Lake Manitoba shorelines.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement for the Project</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye.</p> <p><u>Locations:</u> Portions of Lake Manitoba are within the PDA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by Skownan First Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Skownan First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Skownan First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment,</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> • Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. • Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). • Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. • Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p>	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized</p>

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		<p>and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. • The majority of Project channel excavation and construction will be conducted “in the dry” and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. • Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to 	<p>in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Skownan First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force</p>

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			<p>the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p>Measures to avoid or reduce effects to commercial fishing are identified in the CEMP and include:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will engage with commercial fish harvesters, anglers, local resource users, and MSD Regional Officials to address potential conflict, disturbance, or access restrictions to fishing/harvesting areas in the PDA and LAA, and availability of fish resources. 	<p>requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Skownan First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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			<p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	
Plants and Plant Harvesting				
<p>Manitoba Infrastructure has obtained no information about Skownan First Nation plant harvesting or traditionally harvested plant species in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, weke, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> No specific plant harvesting sites or locations used by Skownan First Nation within the RAA were identified through the Indigenous Engagement Program</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>In the absence of specific information about current use by Skownan First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by Skownan First Nation to occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Skownan First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in</p>

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	<p>for the Project or review of relevant secondary sources.</p>		<p>evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2).</p> <ul style="list-style-type: none"> Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the</p>	<p>response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Skownan First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups</p>

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			LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.	<p>have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Skownan First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p><u>Issues and Concerns:</u></p> <p>Skownan First Nation is concerned that access to fishing areas will be limited by high and low water levels on Lake Manitoba.</p> <p>Skownan First Nation had expressed concern that its members will not be able to use their boats on Lake Manitoba during certain periods with the operations of the Project and the FRWCS.</p> <p><u>Sources:</u></p> <p>Manitoba Infrastructure Indigenous Engagement for the Project</p>	<p><u>Locations:</u> No specific travel routes within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by Skownan River First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes used by Skownan First Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible. • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are 	<p>The success of mitigation for travel routes will be monitored through the EMPs These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated</p>

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		<p>channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be</p>	<p>accessible by the public, signage restricting access to authorized personnel will be erected.</p> <ul style="list-style-type: none"> • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. • As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>(Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). and. In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Skownan First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD1 to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring.</p>

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		crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.		<p>Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER (Volume 1, Appendix 5C of the EIS), Manitoba Transportation and Infrastructure will review any information about travel routes that Skownan First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Habitation, Cultural and Spiritual Sites				
<p>No information about Skownan First Nation use of habitation, cultural and spiritual sites in the RAA has been obtained through either Indigenous engagement program or a review of publicly available literature.</p> <p><u>Recommendations made by Skownan First Nation:</u> Skownan First Nation had expressed the need to ensure environmental protection measures are followed in their traditional territory.</p> <p><u>Sources:</u> Manitoba Infrastructure Indigenous Engagement for the Project</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations within the RAA were identified by Skownan First Nation through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about habitation, cultural and spiritual sites and areas identified by Skownan First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by Skownan First Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including,</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. 	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory</p>

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		<p>but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>	<ul style="list-style-type: none"> Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from Skownan First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for</p>

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				<p>Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Skowman First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>Tataskweyak Cree Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p>Through a review of publicly available literature, Tataskweyak Cree Nation have reported hunting or trapping moose, deer, elk caribou, rabbit, marten, fisher, river otter, beaver, muskrat, geese, bear and ducks (including eggs), lynx, wolverine, fox, prairie chicken, partridge, spruce grouse, goose and mink.</p> <p>Tataskweyak Cree Nation has reported that hunting and trapping are integral to their lives because these are life-sustaining activities.</p> <p>Tataskweyak Cree Nation has reported trapping and hunting at the Red Deer River, Overflowing River, Duck Bay, Pine Creek, Pelican Rapids and Dawson Bay.</p> <p>Tataskweyak Cree Nation has observed a loss of suitable beaver habitat along Split Lake shorelines due to the increased water levels.</p> <p>Manitoba Infrastructure provided a summary of publicly available secondary sources used in regulatory reporting for the Project to Tataskweyak Cree Nation for review and comment. Tataskweyak Cree Nation has also provided Manitoba Infrastructure an additional list of secondary sources that have been reviewed and incorporated into this table where appropriate.</p> <p><u>Sources:</u> Manitoba Hydro 2011 TCN 2011 Northern Lights Heritage Services Inc. 2012</p>	<p><u>Species identified by Tataskweyak Cree Nation:</u> moose, deer, elk, caribou, rabbit, marten, fisher, river otter, beaver, muskrat, geese, bear, ducks, lynx, wolverine, fox, prairie chicken, partridge, spruce grouse, goose, mink.</p> <p><u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> mule deer, white-tailed deer, coyote, wolf, short-tailed weasel, long-tailed weasel, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle.</p> <p><u>Locations:</u> Red Deer River, Overflowing River, Duck Bay, Pine Creek, Pelican Rapids and Dawson Bay are located outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about hunting and trapping by Tataskweyak Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping by Tataskweyak Cree Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by Tataskweyak Cree Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife species – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p> <p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups</p>

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		<p>Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<p>ROW and not extend beyond the PDA (Chapter 8, Section 8.2).</p> <ul style="list-style-type: none"> Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>engaged on the Project for review and comment (feedback/input). In addition due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology, in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Tataskweyak Cree Nation were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify</p>

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				<p>anticipated jobs as well as construction scheduling and sequencing to enable FPD to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that Tataskweyak Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Aquatic Environment and Fishing				
<p><u>Existing Conditions:</u></p> <p>Through a review of publicly available literature, Tataskweyak Cree Nation have reported fishing pickerel, jackfish, sucker, catfish, carp and whitefish. Tataskweyak Cree Nation reported fishing locations at Red Deer Lake, Red Deer River, Lake Winnipegosis, Dauphin Lake, Duck Bay and Whitemud River.</p> <p>Tataskweyak Cree Nation reported that fishing is an important activity and is relied upon for diet, as well as for economic benefit.</p> <p>Tataskweyak Cree Nation has reported that fishing is an integral to their lives because these are life-sustaining activities. Tataskweyak Cree Nation indicated that Split Lake is a source of drinking water and for traditional purposes.</p> <p>Tataskweyak Cree Nation noted that changes in fish distribution as a result of the Project would require community members that rely on potentially affected waterbodies to travel further to find suitable fish harvesting grounds.</p> <p>Tataskweyak Cree Nation indicated that the water quality in Split Lake has been deteriorating as a result of agricultural, industrial, and municipal developments occurring upstream coupled with regulation of flows and water levels related to hydroelectric power development.</p> <p>Tataskweyak Cree Nation reported that the confluence of the Churchill and Little Churchill rivers is an important harvesting location for lake sturgeon.</p>	<p><u>Species identified by Tataskweyak Cree Nation:</u> pickerel, jackfish (northern pike), sucker, catfish, carp and whitefish.</p> <p><u>Other species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, burbot, trout, perch, sauger.</p> <p><u>Locations:</u> Lake St. Martin is in the PDA. Portions of Lake Winnipeg are in the PDA. The Narrows are within the PDA. Sturgeon Bay is within the PDA. Birch Creek is within the LAA. Split Lake and the Nelson River are outside the RAA. The Red Deer Lake, Red Deer River, Lake Winnipegosis, Dauphin Lake, Duck Bay, Whitemud River Churchill River, Reindeer Island, Assiniboine River, and Little Churchill River are outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by Tataskweyak Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by Tataskweyak Cree Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested Tataskweyak Cree Nation.</p> <p>During a flood event, water flows across the land and can pick up sediments that contain chemicals such as fertilizers, pesticides and other contaminants. Under current conditions, this material flows through the Fairford River and the Dauphin River during floods. The Project will reduce the amount of overland flooding and is therefore expected to reduce the amount of contamination entering Lake Winnipeg.</p>	<p>Effects regarding sediments, debris and contamination have been considered in the SWMP, SMP and Debris Management Plan. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • Effects regarding contamination/water quality are addressed in the SWMP, PERs, and SMP. Some of the key specific mitigation measures from these plans are listed below: • Any storage and use of chemicals is strictly regulated and application of chemicals requires training and a permit. • Implement measures for materials handling, waste handling and disposal and fuel handling and storage in designated areas located a minimum of 100 m from waterbodies and with secondary containment. • Debris and materials shall be removed from the ice cover (over waterbodies) on an on-going basis, and disposed of in an appropriate landfill or other location. • Sediments will be monitored, and visual inspections will be carried out as part of the SWMP and SMP and contingency mitigation measures such as silt fencing and materials to minimize bank erosion will be used, where necessary. 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed). Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received</p>

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<p>Tataskweyak Cree Nation reported that fishing is increasingly difficult on Split Lake due to debris particularly since 2005 when record flood conditions were experienced.</p> <p>Tataskweyak Cree Nation has concerns with the quality of the water in Split Lake, noting that they cannot drink the water.</p> <p>Tataskweyak Cree Nation has reported that they cannot swim in the Split Lake because they have experienced rashes and blisters on skin as well as eye and ear infections, stomach upsets and fevers.</p> <p>Tataskweyak Cree Nation has reported that the fishery has changed, and they cannot eat the fish because mercury levels are too high.</p> <p>Tataskweyak Cree Nation reported that in summer 2019, thick algae blooms blanketed Split Lake and commercial fishers reported catching fish with many lesions on their skin.</p> <p>Tataskweyak Cree Nation reported that lower domestic fish harvests have been linked to fishing difficulties during high water years.</p> <p>Tataskweyak Cree Nation members have reported that increased water level fluctuations on the Nelson River resulted in the loss of aquatic plants, which has caused game species, such as moose, to leave areas that were once suitable habitat.</p> <p>Tataskweyak Cree Nation members reported fishing in the north arm of Stephens Lake for Lake Whitefish, Walleye, Northern Pike, sucker, Goldeye and baitfish.</p> <p>Tataskweyak Cree Nation have reported algae blooms in Lake Winnipeg and in Split Lake are getting worse, as well as the growth of cyanobacteria.</p> <p>Tataskweyak Cree Nation has reported that high levels of nutrients such as nitrogen and phosphorus can lead to the development of algal blooms in lakes, where the water may appear like thick soup and have an unpleasant odour.</p> <p>Tataskweyak Cree Nation reported that First Nations fishers have described the presence of bottomless holes in the bed of Lake St. Martin.</p> <p>Tataskweyak Cree Nation noted experience with contaminated sites and Snake Pits around Narcisse show that the limestone bedrock was once prone to karst development, resulting in the existence of caverns and sinkholes in the limestone bedrock of the Interlake.</p> <p>Tataskweyak Cree Nation reported that during the 2011 and 2014 flood, fishers active in the area reported that fish had moved off traditional habitats and that the catch per unit effort decreased. It was also reported that the spawning beds were mantled with debris and sediment, which reduces spawning success and results in reduction of whitefish and walleye still</p>		<p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and rivers that could attract fish to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p> <p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and</p>	<ul style="list-style-type: none"> The banks of the channel will be revegetated to reduce erosion. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. If required, at the start of operation, the water control structure gates can be gradually opened to control sediment levels, based on results of sediment monitoring. There will likely be increases in sediment concentrations at the end of the channel, but they will be managed to address water quality concerns through monitoring and flow adjustments. <p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43). Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. 	<p>on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Tataskweyak Cree Nation were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p>

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<p>evident. Tataskweyak Cree Nation reported that spawning areas as far away as Reindeer Island were disrupted from previous floods and that debris from the floods destroyed their nets.</p> <p>Tataskweyak Cree Nation reported that the water quality in Split Lake is much worse than it was in the 1970s and that the vigor of algae blooms has increased as a result of increases in nutrients over the last 50 years.</p> <p><u>Issues and Concerns:</u></p> <p>Tataskweyak Cree Nation expressed concerns that the Project will cause further deterioration of the water quality in Split Lake.</p> <p>Tataskweyak Cree Nation expressed concerns regarding potential increases in algal blooms as a result of the Project and effects to water quality from algal toxins.</p> <p>Tataskweyak Cree Nation Project that will add flood waters with unassessed contaminate loads to the mix of waters that flow past the community.</p> <p>Tataskweyak Cree Nation has expressed concerns regarding fish populations and fishing (particularly domestic subsistence fishing). Concerns have been related to a decrease in the number of fish, an increase in debris in nets, concerns about water quality and issues with access.</p> <p>Tataskweyak Cree Nation is concerned that the sediment from the EOC have affected the commercial fishery in Lake Winnipeg.</p> <p>Tataskweyak Cree Nation is concerned about the nutrients added to Lake Winnipeg by the Project and the possible encouragement of algae growth and release of toxins.</p> <p>Tataskweyak Cree Nation is concerned about the impact of blue green algae in Lake St. Martin, Lake Winnipeg, Nelson River, and Split Lake.</p> <p>Tataskweyak Cree Nation is concerned the Project will cause further deterioration of the water quality in Split Lake.</p> <p>Tataskweyak Cree Nation is concerned the channels could cause the Split Lake to lower to an almost dry state.</p> <p>Tataskweyak Cree Nation is concerned about changes to water levels, water flows, water velocities, and sediment concentrations in Lake St. Martin during operation of LSMOC and LMOC. Tataskweyak Cree Nation noted that the impacts of these changes directly affect the environment and First Nation rights.</p> <p>Tataskweyak Cree Nation is concerned that the spatial boundaries of the EIS does not extend far enough upstream and downstream of the Project and does not include Split Lake,</p>		<p>deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<ul style="list-style-type: none"> Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. The majority of Project channel excavation and construction will be conducted "in the dry" and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. 	<p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDJ to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDJ representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDJ to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDJ are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDJ to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDJ are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about the aquatic environment and fishing that Tataskweyak Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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<p>which will be impacted by the floodwater released during Project operation.</p> <p>Tataskweyak Cree Nation is concerned about the additional nutrient flush from floodwaters diverted by the channels into Lake Winnipeg and along the Nelson River.</p> <p>Tataskweyak Cree Nation is concerned that the additional nutrients will encourage the growth of algae, causing the release of algae toxins, which will be detrimental to human and animal health.</p> <p>Tataskweyak Cree Nation is concerned that the changes to water quality, including nutrient and sediment loads, in Lake St. Martin and Lake Winnipeg has not been analyzed.</p> <p>Tataskweyak Cree Nation is concerned about the effects of wind and wave set-up on lake levels, hydraulics of flow in rivers and channels and the erosion of shoreline impacted by the Project.</p> <p>Tataskweyak Cree Nation is concerned that increased erosion of the near shore of lakes combined with the resuspension of sediments will lead to high turbidity along the shore, impacting fish health, habitat and the productivity of Lake St. Martin.</p> <p>Tataskweyak Cree Nation is concerned that any erosion of the bed will result in transport of eroded sediment to Lake St. Martin with possible adverse effects on fish habitats and fishery and rights to a sustainable fishery.</p> <p>Tataskweyak Cree Nation is concerned that lowering water levels and invert of the inlet to the LSMOC will have irrevocable damage to the fishery.</p> <p>Tataskweyak Cree Nation is concerned about the effects of the Project on the Narrows in Lake St. Martin and the north basin of the lake, which are two areas important for the fishery of the lake.</p> <p>Tataskweyak Cree Nation is concerned about the large number of peak flow events in the last 45 year, which reflect changes that are occurring because of climate change and cumulative effects of other projects such as Portage Diversion and Fairford River Control Structure and the loss of storage capacity in the Assiniboine River watershed.</p> <p>Tataskweyak Cree Nation is concerned about effects of increased erosion on finer sediments when waves break further from the beach due to lower water levels.</p> <p>Tataskweyak Cree Nation expressed concern about the health of the littoral zone in Lake St. Martin affected by increased turbidity and wave action further offshore.</p> <p>Tataskweyak Cree Nation is concerned that the effects of wind and wave set-up will affect the set-backs required around Lake St. Martin which will affect First Nation lands areas and rights.</p>			<ul style="list-style-type: none"> Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p> <ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to minimize habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. 	

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<p>Tataskweyak Cree Nation is concerned that the diminishment of high flows in the rivers and the rivers' ability to erode and transport sediment will impact habitats for fish, wildlife which will cause further impacts to First Nation socio-economics.</p> <p>Tataskweyak Cree Nation is concerned about the sediment bars in Dauphin River when the channels are operating and the impacts on fish and fishhabitat in Lake St. Martin and on the fishing rights of the Interlake First Nations.</p> <p>Tataskweyak Cree Nation is concerned about the role of multiple flood events in the sediment transport and plume caused by the channels and the impacts on Lake St. Martin and Birch Bay, Sturgeon Bay water quality.</p> <p>Tataskweyak Cree Nation is concerned that the sediment plume will have impacts on benthic organisms, fish, and fish habitats and the fishery.</p> <p>Tataskweyak Cree Nation is concerned about sinkholes causing massive failures of the channels as the channel beds may disappear into solution cavities or sinkholes.</p> <p>Tataskweyak Cree Nation is concerned about the nutrient loads stemming from the Portage Diversion and the impact to the Narrows.</p> <p>Tataskweyak Cree Nation is concerned that the increase in erodiability of the sediments forming the narrows will change the makeup of the sediments forming the bed of the narrows and cause a deepening of the bed and a coarsening of bed sediments, impacting the spawning habitats of fish.</p> <p>Tataskweyak Cree Nation is concerned that inlet structure will have major impacts on the dynamics of currents, erosion, bed sediments and turbidity in the North Basin, negatively affecting the health of Lake St. Martin.</p> <p>Tataskweyak Cree Nation is concerned about the concentrations of TSS and the extents and distribution of a sediment plume in Birch Bay.</p> <p>Tataskweyak Cree Nation is concerned the sediment plume and distribution of sediment in Birch Bay will have negative impacts on the fishery and First Nation rights.</p> <p>Tataskweyak Cree Nation is concerned about impacts to the reproductive stages of all fish species during channel operation.</p> <p>Tataskweyak Cree Nation is concerned that the operation of the channels during floods may increase the amount of debris moving through the Lake St. Martin system.</p> <p>Tataskweyak Cree Nation is concerned about smaller fish being unable to exit the channel and being impacted by the anoxic conditions.</p>			<ul style="list-style-type: none"> Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	

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<p>Tataskweyak Cree Nation is concerned about the impact lower lake levels combined with wind and wave setup will have on the sediments around the Lake St. Martin inlet.</p> <p>Tataskweyak Cree Nation is concerned about the increasing growth of blue-green algae in Lake Winnipeg and Split Lake. Tataskweyak Cree Nation noted that the increasing supply of flood water with elevated nutrient levels, will increase the growth of blue-green algae.</p> <p>Tataskweyak Cree Nation is concerned about the impact blue-green algae will have on fish and other animals as well as humans. Tataskweyak Cree Nation noted that drinking water treatment plants in the downstream communities are not designed to remove blue-green algae toxins.</p> <p>Tataskweyak Cree Nation is concerned that the downstream boundary of the RAA does not include the Nelson River.</p> <p><u>Recommendations made by Tataskweyak Cree Nation:</u></p> <ul style="list-style-type: none"> • Tataskweyak Cree Nation recommends a comprehensive and complete baseline water quality dataset, representative of the natural condition, which can be used to establish baseline water quality conditions. • Tataskweyak Cree Nation recommends a description of the methodology used for comparison of measured values to baseline conditions to assess for potential impacts to water quality. • Tataskweyak Cree Nation recommends that Manitoba Infrastructure define adaptive management triggers and thresholds in the Aquatic Effect Management Plan ("AEMP") and SWMP before the channels are built. These levels must be derived in consultation with downstream communities, specifically First Nations. • Tataskweyak Cree Nation recommends that during operation of the channels the discharge plumes from the channels and Fairford and Dauphin Rivers entering Lake St. Martin and Lake Winnipeg must be monitored for the water quality parameters listed in Tables 2 and 4 of the SWMP. • Tataskweyak Cree Nation recommends a commitment to frequent monitoring—at least weekly—of the mixing zones when the Channels are in operation. All findings and data must be shared with First Nations, Indigenous groups, and other stakeholders to adequately assess the dynamics of the mixing zones. • Tataskweyak Cree Nation recommends a commitment to frequent monitoring—at least monthly—of all water quality monitoring stations when the Channels are not in operation. Monitoring should continue for a period of at 				

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<p>least ten (10) years to strengthen baseline data and to assist in the determination of water quality trends that may indicate change. All findings and data must be shared with First Nations, Indigenous groups, and other stakeholders.</p> <ul style="list-style-type: none"> • Tataskweyak Cree Nation recommends a review of monitoring requirements on an annual basis and conducted with the input of First Nations and communities downstream of the Project. • Tataskweyak Cree Nation recommends the establishment of surface water monitoring stations on Lake St. Martin, Lake Winnipeg, the Nelson River and Split Lake. • Tataskweyak Cree Nation recommends monitoring locations proposed in the AEMP be expanded to include the Portage Diversion at the south end of Lake Manitoba and extend downstream to the Nelson River at Split Lake. • Tataskweyak Cree Nation recommends water quality baseline data needs to be strengthened so that meaningful triggers and thresholds can be established. • Tataskweyak Cree Nation recommends monitoring must occur over at least ten (10) operational/flood periods. • Tataskweyak Cree Nation recommends monitoring of algae blooms, their species composition, and associated toxins in Lake Winnipeg's north basin and in Split Lake must also be a focus of the AEMP. • Tataskweyak Cree Nation recommends fishery baseline information must be strengthened. • Tataskweyak Cree Nation recommends monitoring information must be shared with First Nations and posted on a public web site. • Tataskweyak Cree Nation recommends that the water quality assessment must consider algae and the effects of algae toxins on human and animal health. • Tataskweyak Cree Nation recommends that the Project must model the outflow plumes from the Dauphin River and LSMOC. • Tataskweyak Cree Nation recommends determining the difference in nutrient and algae conditions in Sturgeon Bay between the pre-Project and post-Project environments. Use trend analysis and the results of the plume models to substantiate your assessment. • Tataskweyak Cree Nation recommends fully assessing nutrient transport from Assiniboine River flood waters released by the Portage Diversion through Lake Manitoba, Lake St. Martin, Lake Winnipeg and Nelson River to Split Lake. 				

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<ul style="list-style-type: none"> • Tataskweyak Cree Nation recommends assessing the effects of multiple flood events on the nutrient condition and algal conditions in Lake Winnipeg over the next 200 years. • Tataskweyak Cree Nation recommends validation of the models used to predict water levels, water flows, water velocities, and sediment concentrations during operation of the Project. • Tataskweyak Cree Nation recommends calculating wind and wave set-up at the intakes to the channels on Lake Manitoba and Lake St. Martin. • Tataskweyak Cree Nation requests a detail explanation for the design criteria to withstand bed and bank erosion for the LSMOC. • Tataskweyak Cree Nation recommends an assessment including maximum velocities that would occur for higher than 10-year flood event and the effects of these higher velocities on erosion at the Narrows. • Tataskweyak Cree Nation recommends examining the reason for increased number of peak flow and carried into climate change and cumulative effects analyses. • Tataskweyak Cree Nation recommends analyzing the commensurate change in habitat along the river using the present state and habitats of the rivers and their future states. • Tataskweyak Cree Nation requests that Manitoba Transportation and Infrastructure uses the estimated concentrations of TSS in the upstream flood waters entering the channel as the initial concentration of TSS. • Tataskweyak Cree Nation recommends examining the density of the void spaces in the underlying bedrock and investigating the susceptibility of the channels to failure because of sink holes underlying the channel beds. • Tataskweyak Cree Nation recommends examining the water quality and water flow pathways from the Portage Diversion as the Project and the Portage Diversion are components of the same flood management system and the Portage Diversion will pour floodwaters from the Assiniboine River, injecting Lake St. Martin with water with different chemistry and sediment load. • Tataskweyak Cree Nation requests that Manitoba Transportation and Infrastructure estimate the amount of debris coming from the Portage Diversion and moving through the Lake St. Martin system in times of flood as this debris gets entangles in nets and has a direct impact on fishing and First Nation rights. 				

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<ul style="list-style-type: none"> Tataskweyak Cree Nation requests that Manitoba Transportation and Infrastructure re-evaluate the condition for defining the downstream boundary for the RAA as far as water quality and fish communities are concerned o provide the evidence that water quality changes and fish community changes will not surpass the current downstream boundary. <p><u>Sources:</u> Manitoba Infrastructure Engagement for the Project Manitoba Hydro 2011 Manitoba Hydro n.d. TCN 2011 TCN 2021a TCN 2021b Northern Lights Heritage Services Inc. 2012 Halket Environmental Consultants 2018 Halket Environmental Consultants 2019 TCN n.d.a TCN n.d.b TCN 2022</p>				
Plants and Plant Harvesting				
<p>Through a review of publicly available literature, Tataskweyak Cree Nation has reported harvesting blueberry, cloud berry, highbush cranberry, raspberry, strawberry, sweetgrass, Labrador tea, sage red willow, Seneca root, mint, pin cherry, bog bilberry, gooseberry, logan berry.</p> <p>Tataskweyak Cree Nation has reported harvesting locations at Overflow Bay, Pine Creek, Dawson Bay, Camperville, Duck Bay and the Red Deer River.</p> <p>Tataskweyak Cree Nation has reported that gathering and is integral to their lives because these are life-sustaining activities.</p> <p>Tataskweyak Cree Nation has reported gathering natural products, such as seneca root for medicinal benefits.</p> <p>Tataskweyak Cree Nation reported harvesting Labrador tea on islands close to the community.</p> <p>Tataskweyak Cree Nation has reported gathering on Lillian Island.</p> <p><u>Issues and Concerns:</u> Tataskweyak Cree Nation expressed concerns that the Big Buffalo system will be damaged by the LSMOC as it cuts off the</p>	<p><u>Plant species reported by Tataskweyak Cree Nation:</u> blueberry, cloud berry, highbush cranberry, raspberry, strawberry, sweetgrass, Labrador tea, sage, red willow, Seneca root, mint, pin cherry, bog bilberry, gooseberry, logan berry.</p> <p><u>Other plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, weke, giant hyssop, baneberry, speckled alder, Saskatoon berry, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, Bicknell's geranium, yellow avens, alum root,</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>Manitoba Infrastructure acknowledges that the information about use of plants and plant harvesting by Tataskweyak Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use plants and plant harvesting by Tataskweyak Cree Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Tataskweyak Cree Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples, the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing</p>

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<p>current water supply to the wetland complex. Tataskweyak Cree Nation noted that the water quality in Lake St. Martin is very different from the water quality feeding the wetlands and is concerned the change in quality of the source water will affect and change the wetland complex.</p> <p>Tataskweyak Cree Nation is concerned about the health and sustainability of wetlands and their ecosystems.</p> <p>Tataskweyak Cree Nation is concerned about the use of surface water as a replacement for the present groundwater supply in wetland mitigation. Tataskweyak Cree Nation noted that previous use of this mitigation caused the affected areas to change or die.</p> <p><u>Recommendations made by Tataskweyak Cree Nation:</u></p> <ul style="list-style-type: none"> Tataskweyak Cree Nation recommends a full investigation of wetland mitigations and an assessment of the residual changes in wetland compositions caused by the Project. <p><u>Sources:</u></p> <p>Manitoba Hydro 2011 TCN 2011 Northern Lights Heritage Services Inc. 2012 TCN 2022</p>	<p>St. John's wort, wood lily, northern bugle-weed, Canada mayflower, morel, yellow evening primrose, jackpine, balsam poplar, rattlesnake root, self-heal, sand cherry, plum, chokecherry, bracken (fiddlehead), wintergreen, bur oak, wild black currant, red currant, prairie rose, wild rose, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, dwarf blueberry, bog blueberry, cranberry, logan berry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> Overflow Bay, Pine Creek, Dawson Bay, Camperville, Duck Bay, Lillian Island and the Red Deer River are located outside the RAA.</p>	<p>harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p> <p>The Project will remove traditionally harvested plant species from the PDA and/or affect the distribution and abundance of important species in the LAA.</p>	<ul style="list-style-type: none"> As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible 	<p>Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7). As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Tataskweyak Cree Nation were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and</p>

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			<p>to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDl to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDl representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDl to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDl are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDl to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDl are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEr (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that Tataskweyak Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Travel Routes				
<p>Through a review of publicly available literature, Tataskweyak Cree Nation has reported historic wagon trails by Pine Creek.</p> <p>Tataskweyak Cree Nation reported using waterways for transportation.</p> <p>Tataskweyak Cree Nation has reported that resource harvesting areas are accessed by boat, truck, ATV, snowmobile, aircraft or on foot.</p> <p><u>Sources:</u> Manitoba Hydro 2011</p>	<p><u>Locations:</u> Pine Cree is located outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>Manitoba Infrastructure acknowledges that the information about use of travel routes by Tataskweyak Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of travel</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the 	<p>The success of mitigation for travel routes will be monitored through the EMPs These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project</p>

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<p>TCN 2011</p> <p>Keeyask Hydropower Limited Partnership 2012</p>		<p>routes harvesting by Tataskweyak Cree Nation to occur throughout the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially</p>	<p>Project, so that areas and time periods of activity can be avoided, when feasible.</p> <ul style="list-style-type: none"> The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed at specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Tataskweyak Cree Nation were provided to Manitoba Transportation and Infrastructure in April 2021.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of</p>

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		<p>increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>		<p>crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous as outlined in the ICSE (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about travel routes that Tataskweyak Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
Habitation, Cultural and Spiritual Sites				
<p>Through a review of publicly available literature, Tataskweyak Cree Nation has reported that burials were found on the Red Deer River in the past.</p> <p><u>Sources:</u> Manitoba Hydro 2011</p>	<p><u>Locations:</u> The Red Deer River is located outside of the RAA.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>Manitoba Infrastructure acknowledges that the information about use of habitation, cultural and spiritual sites and areas by Tataskweyak Cree Nation presented in this table should not be considered comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of habitation, cultural and spiritual sites and areas by Tataskweyak Cree Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by Tataskweyak Cree Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Apart from the two known cemeteries, no burials or unmarked graves</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> • The HRIA identified existing or potential sites and prescribes site specific mitigation. • The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. • The EPP identifies specific existing and potential sites and specific measures to protect them. • The AMP controls access around the Project construction area. • Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. • An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. Written responses from Tataskweyak Cree Nation were provided to Manitoba Transportation and Infrastructure in April 2021.</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>have been identified or reported in the RAA. Apart from the two known cemeteries, no burials or unmarked graves have been identified or reported in the RAA. Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p> <p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>		<p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
<p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that Tataskweyak Cree Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>				
<p>York Factory First Nation <i>information obtained through Manitoba Infrastructure Indigenous engagement program current to mid-March, 2022</i></p>				
<p>Wildlife and Hunting and Trapping</p>				
<p>Manitoba Infrastructure has obtained no information about York Factory First Nation hunting or trapping or traditionally harvested species in the RAA through the Indigenous consultation and engagement program or a review of publicly available literature.</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> moose, mule deer, white-tailed deer, elk, black bear, coyote, wolf, beaver, wolverine, river otter, lynx, marten, short-tailed weasel, long-tailed weasel, mink, rabbit, fisher, muskrat, squirrel, mallard, ruffed grouse, sharp-tailed grouse, Canada goose, bald eagle, prairie chicken, partridge.</p> <p><u>Locations:</u> No specific hunting or trapping sites or locations used by York Factory First Nation within the RAA were identified through the Indigenous Consultation and Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding. Flooding effects can include impacts on the availability of traditional resources for current use through damage or removal of wildlife habitat, and access to areas for traditional resource use.</p> <p>In the absence of specific information about current use by York Factory First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for hunting and trapping York Factory First Nation occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by York Factory First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively.</p> <p>The Project is anticipated to result in a change in the availability of traditional resources for current use. This could be through the loss of traditionally harvested wildlife – either directly, or indirectly, through the loss of the habitat that supports them. This can affect the distribution and abundance of wildlife in the LAA, which can result in changes to traditional hunting and trapping in within the LAA.</p> <p>Direct losses of wildlife could occur through potential collisions with construction vehicles, through hunting by construction workers, or through crushing by heavy equipment. Some wildlife could also leave the area if exposed to noise, dust and other sensory disturbances.</p>	<p>Key specific mitigation measures that may also serve to avoid or reduce effects to traditionally harvested species are identified in the WMP, AMP, RVMP, WCP, and EPP, and include the following:</p> <ul style="list-style-type: none"> As described in the WMP, channel design mitigations to enhance wildlife movement include 4:1 side slopes, use of small diameter rip rap, and addition of cover plantings on upland portions of the ROWs. Mitigation for reducing mortality risk include clearing outside of the sensitive breeding bird period (April 1 – August 31), wildlife awareness signs and a gated access road to reduce wildlife mortality risk. As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. Safe passage will be provided at identified crossing locations. Construction and operation and maintenance personnel will not be permitted to hunt, harass, or feed wildlife. Nuisance wildlife will be reported to the appropriate authorities (e.g., MSD conservation officer). A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. 	<p>The success of wildlife mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For wildlife species that are commonly hunted and trapped by Indigenous peoples, the most relevant monitoring plan would be the WMP, which includes components such as mammal movement monitoring using remote trail cameras and winter track surveys, and wildlife mortality reporting. The RVMP and WetMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated</p>

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		<p>Indirect losses of wildlife could occur if changes in habitat enhance predator and/or hunter access. Linear corridors such as the LSMOC, could enhance access in previously remote areas.</p> <p>In addition to estimating potential direct losses to wildlife, changes in the amount of available native land cover can be used to predict residual effects to traditionally harvested wildlife species. The Project will remove areas of native upland and wetland vegetation; however, effects from the LMOC will mainly be to agricultural land. Native upland vegetation loss will equal 3.5% of the existing area in the LAA and wetland loss will equal 7.3% of the existing area in the LAA.</p>	<ul style="list-style-type: none"> As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites (e.g., dens, roosts, stick nests, hibernacula) or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reducing the effects of flooding. Residual effects on wildlife will not pose a threat to the long-term persistence and viability of species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional hunting and trapping by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>(Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from York Factory First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local Indigenous groups with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the</p>

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				<p>Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about hunting and trapping that York Factory First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>
Aquatic Environment and Fishing				
<p><u>Issues and Concerns:</u> York Factory First Nation is concerned with water quality, including invasive species and agricultural contaminants.</p> <p><u>Sources:</u> Manitoba Infrastructure Indigenous Engagement for this Project</p>	<p><u>Species in the RAA commonly understood to be harvested by Indigenous groups:</u> sturgeon, white sucker, whitefish, common carp, northern pike, channel catfish, burbot, trout, perch, sauger, walleye (pickerel)</p> <p><u>Locations:</u> No specific aquatic environment and fishing locations used by York Factory First Nation within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through changes in the distribution and abundance of fish or loss of fish habitat, or changes in access to fishing areas for traditional resource use.</p> <p>In the absence of specific information about current use by York Factory First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for fishing by York Factory First Nation to occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be fished by York Factory First Nation.</p> <p>Manitoba Infrastructure acknowledges that the information about use of the aquatic environment and fishing by York Factory First Nation presented in this table should not be considered</p>	<p>Effects to fish movements have also been considered through input to the development of operation guidelines, but ongoing monitoring will provide input to adjustments, if/as required. Measures to address specific effects include the following:</p> <ul style="list-style-type: none"> Both channels have been designed to allow fish passage in a downstream direction and to sustain fish throughout the year. The LSMOC has been designed to reduce fish stranding by preventing upstream movement into the channel from Lake Winnipeg. Changes to flows in the Dauphin and Fairford rivers will primarily occur at high flows and are not predicted to affect fish ascending the rivers to spawn further upstream. Flows will continue to have the same seasonal fluctuations (e.g., highest flows in spring, lower flows in summer, lowest in winter) and are expected to continue to provide the velocities and depths 	<p>The success of fish and fish habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For fish species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the AEMP, which includes components such water quality, fish populations, fish movements and habitat use. It also includes annual monitoring of commercial harvests. In addition, water quality monitoring is part of the SWMP, SMP and GWMP.</p> <p>The AEMP includes an assessment of mercury in fish. Mercury concentrations in the flesh of fish from Lake Manitoba, Lake St. Martin and Sturgeon Bay will be monitored to determine if mercury concentrations increase, and if so, to determine if it may be related to the Project. Based on engagement feedback mercury will also be monitored at Buffalo Creek during the first two operational periods (gate open and gate closed).</p>

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		<p>comprehensive. Manitoba Infrastructure has conservatively assumed that there is the potential for use of the aquatic environment and fishing by York Factory First Nation to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by York Factory First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to fish and fishing that require mitigation and monitoring to manage effectively. Effects could involve changes to fish health and mortality, changes to fish movements, or changes to fish habitat.</p> <p>Effects to fish movements include the fish passage issues associated with the channels, and the splitting of flows between the channels and adjacent creeks and that could attract to new areas. One-way movement of fish out of Lake Manitoba to Lake St. Martin and out of Lake St. Martin to Lake Winnipeg through the outlet channels is unavoidable. Resultantly, there are both positive and negative effects. Fish will have one-way access to the lakes, and there will be a sizable length of marginal fish habitat in the channels. There will be one way movement in channel but movements within system will be unaffected as fish will be able to move back into both Lake St. Martin and Lake Manitoba through existing waterways.</p> <p>Effects could also involve the introduction of AIS such as zebra mussels, the spiny water flea and rainbow smelt are of concern to resource harvesters as they can affect the availability of resources. The first two listed disperse only in downstream directions (i.e., not upstream through the channel network), as they are weak swimmers and drift with the current. Other vectors of spread such as boats, construction equipment, and the construction workforce will increase the risk of AIS transfers to Lake St. Martin or Lake Manitoba.</p> <p>Effects to fish health and mortality could involve the accidental releases of deleterious substances such as fuel spills or sediments, fish stranding and being exposed to low oxygen levels, blasting mortality, increased harvest due to increased access, and potential bioaccumulation of methylmercury.</p>	<p>suitable for all fish life history requirements. This includes the higher spring flows necessary to clean gravel spawning areas of silt. As an example, field studies of lake whitefish in the fall of 2020 confirmed that they will still migrate up the Dauphin River at flows lower than the 50th percentile (see IAAC-41 and IAAC-43).</p> <ul style="list-style-type: none"> • Entrainment of larval fish and attraction of adult fish downstream through the LMOC and LSMOC may be reduced by a gradual ramping up the opening of the control structures to allow fish time to move away from the structures. • Adhering to provincial invasive species regulations will minimize Project effects on the spread of invasive species. However, the current potential for the spread of invasive species will not change as the existing connections between waterbodies will remain post-Project. <p>Effects to fish health and mortality are addressed in several plans that form part of the EMP. Water quality issues are addressed in the SWMP, SMP, GWMP, PER, QMP, and EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> • A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. • Maintenance and repair of vehicles, equipment, and machinery will be carried out in designated areas located at least 100 m from the ordinary high-water mark of a waterbody, riparian area, or wetland. • All machinery working near waterbodies will be kept clean, free of leaks, and inspected regularly. 	<p>Species to be sampled include walleye, northern pike, and lake whitefish.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from York Factory First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental</p>

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		<p>Effects to fish habitat and fishing areas could include the excavation of channel inlets and outlets, sensory disturbances or changes to water quality or flows, causing fish to avoid areas. Potential changes to fish habitat are primarily through three Project pathways: excavations in Watchorn Bay, Birch Bay, Lake St. Martin and Sturgeon Bay to construct channel inlets/ outlets; realignment, isolation or dewatering drains and headwater streams; and the movement and deposition of sediment in Birch Bay within Lake St. Martin and Sturgeon Bay within Lake Winnipeg.</p>	<ul style="list-style-type: none"> • The majority of Project channel excavation and construction will be conducted “in the dry” and not in proximity to fish and fish habitat. Cofferdam installation would be carried out during the summer, following the Manitoba Restricted Activity Timing Windows for the Protection of Fish and Fish Habitat. • Should blasting be required that may affect the aquatic environment, DFO blasting guidelines will be followed regarding charge sizes and set-back distances to avoid effects to sensitive life stages of fish. • Exposed slopes will receive erosion protection measures as soon as practical. The base and lower side slopes of the LSMOC will be fully armoured and high-erosion-risk areas of the LMOC will also be armoured, to reduce erosion. • Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016). • To address the potential for stranding and fish kill, baseflow in the LSMOC will be provided year-round to allow downstream fish passage and maintain water temperatures and dissolved oxygen concentrations to sustain fish that may occupy the channel. Fish upstream of the control structures will have unrestricted access to Lake Manitoba or Lake St. Martin year-round. Fish mortality due to stranding is expected to be negligible. <p>Effects to fish habitat are addressed primarily in the Aquatic Offset Plan, which describes the development of new habitat to replace any areas that are lost through Project activities.</p>	<p>mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about aquatic environment and fishing that York Factory First Nation may bring forward and incorporate into regulatory reporting and Project planning</p>

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Attachment 4: Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples
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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
			<ul style="list-style-type: none"> Channel inlet/outlet excavation areas associated with Project construction will be limited to their minimum areas, but changes to fish habitat will occur. The channel route was selected to minimize environmental effects, and to avoid habitat change due to realignment or dewatering of drains and headwater streams, the selected route comparatively reduces the amount of change that will occur within watershed areas over other alignments that were considered. Mitigation for new water crossing infrastructure on drainage networks includes the use of bridges and properly installed culverts to minimize effects to regional fish populations and installation during periods of lower sensitivity (e.g., fish spawning). <p><i>Residual Effects after Mitigation:</i> As noted in the Project EIS (Chapter 7), after mitigation, there is no expectation of measurable residual effects on fish abundance and therefore the Project is not anticipated to pose a threat to the long-term persistence and viability of traditionally harvested fish species in the RAA. Therefore, the Project EIS predicts that the species relied on for traditional fishing by Indigenous peoples will continue to be available and accessible within the RAA.</p>	
Plants and Plant Harvesting				
<p>Manitoba Infrastructure has obtained no information about York Factory First Nation plant harvesting or traditionally harvested plant species in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Plant species in the RAA commonly understood to be harvested by Indigenous groups:</u> balsam fir, yarrow, Manitoba maple, <i>weke</i>, giant hyssop, baneberry, speckled alder, Saskatoon berry, sweetgrass, dogbane, columbine, golden chanterelle, fireweed, bunchberry, red osier dogwood, American hazelnut, beaked hazelnut, hawthorn, tall cinquefoil, shrubby cinquefoil, Canada fleabane, strawberry, Bicknell's geranium, yellow avens, alum root, St. John's wort, wood lily, northern bugleweed, Canada mayflower, wild mint, morel, yellow evening primrose, jackpine, Seneca root, balsam poplar, rattlesnake root, self-heal, pin cherry, sand cherry, plum, chokecherry, bracken</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can affect availability of traditional resources for current use through damage or remove vegetation, or access to plant harvesting areas.</p> <p>In the absence of specific information about current use by York Factory First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for plant harvesting by York Factory First Nation to occur within the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by York Factory First Nation.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to traditional plants and plant harvesting that requires mitigation and monitoring to manage effectively. The Project will remove traditionally harvested plant species from the PDA and/or affect</p>	<p>For plants and plant harvesting, the most relevant plans would include the AMP, the RVMP, the WCP, the Biosecurity Management Plan and the EPP. Some of the key specific mitigation measures from these plans are listed below:</p> <ul style="list-style-type: none"> Manitoba Transportation and Infrastructure will continue to share information and engage with Indigenous groups regarding the proposed and actual final construction schedule, in order that Indigenous groups are in a position to best utilize the remaining opportunities available to them to harvest traditionally used plants, in advance of the start of Project construction.. A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided. 	<p>The success of vegetation habitat mitigation will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>For plant species that are commonly harvested by Indigenous peoples the most relevant monitoring plan would be the RVMP. The WetMP and BMP (provided in Attachment 1 - Updated Environmental Management Plans) also include a vegetation monitoring component.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
	<p>(fiddlehead), wintergreen, bur oak, Labrador tea, wild black currant, red currant, Canadian gooseberry, prairie rose, wild rose, cloud berry, raspberry, dewberry, blackberry, three-toed cinquefoil, Canada goldenrod, smooth goldenrod, meadowsweet, marsh hedge nettle, snowberry, dandelion, cedar, red clover, blueberry, dwarf blueberry, bog blueberry, cranberry, logan berry, highbush cranberry, downy arrowwood, wild grapes, wild rice.</p> <p><u>Locations:</u> No specific plant harvesting sites or locations used by York Factory First Nation within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>the distribution and abundance of important species in the LAA.</p> <p>Project residual effects on important traditional use plant species collection sites can be calculated using PDA calculations of the amount of permanent and temporary losses to plants habitats. Out of the 120 listed traditional use plant species, half are ranked by the MBCDC as provincially common including many berry species. Based on the data collected in 2016, it is not known if the traditionally used plant species are locally or regionally abundant; however, the habitat for these species exists within the LAA and RAA. The Project will remove 205.5 hectares (ha) of native upland (3.5% of the existing area in the LAA) and 1,118.3 ha of native wetland (7.3% of the existing area in the LAA).</p>	<ul style="list-style-type: none"> As described in the AMP, Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and operation and maintenance. Where access routes are accessible by the public, signage will be erected limiting access to authorized personnel. The EPP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. As described in the EPP, exclusionary flagging or fencing will be clearly identified and installed, as appropriate, around environmentally sensitive sites or sensitive habitats prior to clearing and construction, and evaluate features for additional mitigation measures (e.g., setbacks). Vegetation clearing and construction activities will be limited to the ROW and not extend beyond the PDA (Chapter 8, Section 8.2). Natural revegetation will be encouraged. Disturbed lands such as in areas vulnerable to erosion and sedimentation and will be seeded and/or planted in accordance with the RVMP. It identifies locations and methods for restoration of vegetation cover in disturbed areas. The RVMP includes objectives for restoration of natural conditions, erosion protection, sediment control, non-native and invasive plant species management, and wildlife habitat restoration. The hard or abrupt edges formed during clearing of the PDA will eventually be 'softened' as transitional vegetation (e.g., forbs, shrubs, young trees) re-establishes along the ROW edges. Vegetation control will occur through mechanical methods where feasible, and hand clearing will occur along shorelines to mitigate effects to plant harvesting. Chemical vegetation control will only be used when mechanical methods are not feasible. Where chemical control is used, the least toxic, least persistent and most target-specific pesticides pre-approved for use by Provincial legislation are preferred. The applications are targeted to the season where the pest is most susceptible 	<p>committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from York Factory First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for</p>

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			<p>to treatment, applied by trained personnel who meet provincial licensing requirements, and applied using methods and equipment designed to minimize potential for drift and overspray (Manitoba Transportation and Infrastructure 2016).</p> <ul style="list-style-type: none"> The Biosecurity Management Plan describes measures to manage the potential spread of weeds from construction vehicles and equipment. <p><i>Residual Effects after Mitigation:</i> With the use of mitigation measures, the direct and indirect loss of habitat for traditionally harvested species is expected to be relatively small compared to the remaining habitat available in the RAA, and the habitat reclaimed by reversing the effects of flooding. Residual effects on vegetation will not result in the loss of vegetation communities in the LAA. Therefore, the Project EIS predicts that the species relied on for traditional plant harvesting by Indigenous peoples will continue to be available and accessible within the RAA.</p>	<p>Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD I to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD I representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD I to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD I are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD I to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD I are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the IC SER (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about plants or plant harvesting that York Factory First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate</p>
Travel Routes				
<p>Manitoba Infrastructure has obtained no information about York Factory First Nation use of travel routes in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific travel routes used by York Factory First Nation within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can alter or remove opportunities to access areas used for traditional purposes.</p> <p>In the absence of specific information about current use by York Factory First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential of travel routes</p>	<p>For effects to travel routes, the most relevant plan would include the AMP, but other plans include elements that address aspects of travel. For example, the OEMP includes measures to address ice and debris. Examples of relevant mitigation measures include the following:</p> <ul style="list-style-type: none"> A schedule of construction and Project activities will be made available to all Indigenous groups engaged on the Project and 	<p>The success of mitigation for travel routes will be monitored through the EMPs These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive</p>

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		<p>used by York Factory First Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to existing travel routes in the RAA that requires mitigation and monitoring to manage effectively.</p> <p>The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the outlet channels themselves) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways.</p> <p>The Project is anticipated to result in changes in access to traditional resources and current use areas in the PDA. Travel along the snowmobile trails intersected by the LSMOC will be altered. Roads and access routes that result from the Project may affect access to resources by causing Indigenous groups to seek alternate routes to areas and sites.</p> <p>Increased access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous groups.</p> <p>Changes to access and navigation routes as a result of the Project may affect Indigenous groups' ability to harvest, use trails, and access wildlife in the northern portion of the PDA, south of Lake Winnipeg. Potential changes to flows in local watercourses such as the Dauphin River as a result of the Project could affect Indigenous groups' ability to traverse them, thereby restricting access.</p> <p>The construction of new temporary access roads for the Project is likely to increase vehicular traffic and access, thereby impacting Indigenous groups' access to traditional resources and potentially</p>	<p>Northern Affairs Communities engaged on the Project, so that areas and time periods of activity can be avoided, when feasible.</p> <ul style="list-style-type: none"> • The AMP addresses access-related issues expressed by directly-affected landowners, Indigenous groups and the public, and describes specific measures to facilitate proper access during the construction of the Project. • The AMP includes traffic control measures to address anticipated detours and schedules specific to the Project design to mitigate travel delays. • Project-related traffic will be restricted to the Project ROW and associated access routes required during Project construction and maintenance. Where access routes are accessible by the public, signage restricting access to authorized personnel will be erected. • Restricted access for operation and maintenance to the LSMOC will be via the Lake St. Martin access road extending from the forestry road to the EOC inlet and Reach 1, completed by Manitoba Transportation and Infrastructure as a separate Project. Permanent access along the channel alignment will be on top of the containment dikes on either side of the excavated channel. • Manitoba Transportation and Infrastructure will restrict unauthorized access to the outlet channels during operation. • The amount of Project-related vehicle traffic will be reduced by encouraging use of multi-passenger vehicles where feasible. • As described in the WMP, mitigation for reducing mortality risk includes a gated access road to reduce wildlife mortality risk. <p><i>Residual Effects after Mitigation:</i> Access to traditional resources and areas for current use will change as a result of the Project. Outlet channels will intersect traditional use trails and travelways and act as barriers to accessing traditional resources, which can only be crossed as specific locations. Resource users will be able to continue to travel in the area but crossing the outlet channels will impose some restrictions on travel. Travel routes and patterns of access that are not intersected by the PDA will not be altered.</p>	<p>management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) (provided in Attachment 1 – Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring program. No feedback has been received from York Factory First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and</p>

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		<p>increasing competition for consumptive values such as fish, plants, and wildlife. Installation of the LSMOC will occur in ecologically sensitive wetlands and bog lands. Long-term effects acting upon land and resource access could include the disruption of wildlife crossings and corridors, displacement of animals and birds, and permanent bisection of wetlands areas (with no provisions for crossing of the outlet channel from either side of the proposed channel).</p> <p>Construction activities will affect Indigenous groups' abilities to access spiritual areas and locations within portions of the LAA.</p> <p>Project effects include permanent changes to landscape resulting from installation of the channels including changes to terrain, vegetation, and physical access; and barriers to area access in the form of outlet channels that can only be crossed at certain locations. However, travel will only be interrupted during construction and will be able to continue, with alterations, during operations.</p>		<p>stakeholders on the structure and purpose. Manitoba Transportation and Infrastructure regards use and importance of snowmobile trails and suitable means of crossing the LSMOC as appropriate topics for the EAC.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPD1 to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPD1 representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPD1 to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPD1 are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPD1 to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPD1 are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p> <p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSE (Volume 1, Appendix 5C of the EIS). Manitoba Transportation and Infrastructure will review any information about travel routes that York Factory First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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Habitation, Cultural and Spiritual Sites				
<p>Manitoba Infrastructure has obtained no information about York Factory First Nation use of habitation, cultural and spiritual sites in the RAA through the Indigenous engagement program or a review of publicly available literature.</p>	<p><u>Locations:</u> No specific habitation, cultural and spiritual sites or locations used by York Factory First Nation within the RAA were identified through the Indigenous Engagement Program for the Project or review of relevant secondary sources.</p>	<p>The purpose of the Project is to reduce existing adverse effects created by periodic regional flooding, which can damage or remove habitation, cultural and spiritual sites.</p> <p>In the absence of specific information about habitation, cultural and spiritual sites and areas identified by York Factory First Nation in the RAA, Manitoba Infrastructure has conservatively assumed that there is the potential for habitation, cultural and spiritual sites and areas used by York Factory First Nation to occur within the RAA.</p> <p>While there will be positive regional effects, the Project has the potential to cause adverse effects to habitation, cultural and spiritual sites in the LAA that requires mitigation and monitoring to manage effectively. Current use sites and areas, including, but not limited to sites and areas for cultural or spiritual practices, or archaeological and palaeontological sites and areas, have the potential to be affected by direct physical disturbance associated with Project construction and maintenance.</p> <p>Effects on habitation, cultural and spiritual sites are site-specific and limited to the PDA. Habitation, cultural and spiritual outside the PDA will not be directly affected by the Project. The removal of habitation, cultural or spiritual sites or areas within the PDA would constitute an irreversible, adverse effect, as these sites are not capable of being renewed once removed.</p> <p>The assessments for heritage resources in the Project EIS (Chapter 9, Section 9.6) indicates that there are 15 registered archaeological sites in the RAA, one in the LAA, and none in the PDA. Six registered archaeological sites have been recorded in the Interlake Region. Four of the sites were identified as historic period and included sites of fur trade and homestead influence; the two remaining sites were identified as Middle to Late Woodland Period (ca. 2,000 to 350 years ago) based on the stone tools and Native ceramics. All registered archaeological sites are located outside the PDA (Manitoba Infrastructure 2019b). Protocols for chance encounters of archaeological resources during site preparation and construction, described in Chapter 9, Section 9.6, addresses potential effects on these resources.</p>	<p>For effects to habitation, cultural or spiritual sites mitigation is described in several specific plans:</p> <ul style="list-style-type: none"> The HRIA identified existing or potential sites and prescribes site specific mitigation. The HRPP prescribes methods to protect existing sites, areas with high potential to contain sites, and any chance finds uncovered/identified. The EPP identifies specific existing and potential sites and specific measures to protect them. The AMP controls access around the Project construction area. Detailed recording and mapping of spiritual or cultural sites will be developed in partnership with Indigenous groups, leading to a decision made about the relative importance of the site and potential mitigations strategies. An appropriate ceremony will be held prior to commencement of construction under the direction of local Indigenous groups. <p>Should cultural or heritage resources be encountered during site preparation and construction, the Manitoba Historic Resources Branch will be informed immediately. Protective barriers will be placed around the site and construction will cease in the immediate vicinity until the Historical Resources Branch provides instruction (see HRPP).</p> <p><u>Residual Effects after Mitigation:</u> Within the PDA, residual effects to cultural or spiritual sites and areas are considered adverse and are expected during construction of the Project, due to removal of cultural and spiritual sites. The clearing of the PDA will result in permanent impacts to two snowmobile trails. Once removed, cultural and spiritual sites cannot be renewed or returned to baseline conditions. Therefore, cultural or spiritual sites within the PDA would be damaged or destroyed. Cultural or spiritual sites outside the PDA will not be directly affected.</p>	<p>The success of mitigation for habitation, cultural and spiritual sites will be monitored through the EMPs. These plans outline commitments to monitor effectiveness of mitigation and identify issues requiring attention, during both the construction and operation phases of the Project.</p> <p>During the construction and post-construction monitoring and follow-up studies will be conducted to verify predicted environmental effects, detect unanticipated Project effects, and inform adaptive management processes. Manitoba Transportation and Infrastructure will share study results and Project updates with communities. Any information received on hunting, trapping, fishing, plant harvesting, travel routes, habitation, cultural and spiritual sites and other current use from Indigenous groups, advisory committee, individuals will be used to inform ongoing Project planning. The CRP (provided in Attachment 1 - Updated Environmental Management Plans) (provided in Attachment 1 – Updated Environmental Management Plans) has also been developed as a formal mechanism to express concerns raised by Indigenous groups.</p> <p>Opportunities to review and discuss the environmental mitigation and monitoring plans were incorporated into the proposed community-specific work plan that supports consultation, so that potential effects from the Project are appropriately assessed or mitigated (Project EIS Appendix 5C, Section 2.2; Section 10.2.7).</p> <p>As indicated in response to Public Information Request IAAC-103, draft copies of the various monitoring and management plans that form the Environmental Management Program (as summarized in Volume 1, Section 3.7 of the Project EIS and in response to Technical Information Request IAAC-15) are provided in Attachment 1 – Updated Environmental Management Plans. These have also been made available to all Indigenous groups engaged on the Project for review and comment (feedback/input). In addition, due to limitations resulting from the COVID-19 pandemic, a virtual consultation and engagement portal was established to provide summaries of each plan and questionnaires on each to provide opportunities for specific feedback and input on plan adequacy, contents, clarity, and methodology in addition to exploring opportunities for Indigenous training and participation in monitoring</p>

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Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
		<p>A pre-construction HRIA identified ten heritage resources within the PDA and recommended pre-construction mitigatory measures for three of these and construction monitoring for the remaining seven resources (WSP 2020). The HRPP describes actions and protocols required in the event of the chance encounter of previously unrecorded heritage resources during construction (Project EIS Volume 4, Section 9.6.4.1).</p>		<p>program. No feedback has been received from York Factory First Nation to date.</p> <p>Manitoba Transportation and Infrastructure has initiated discussions with Indigenous groups and municipalities in the Project area on the establishment of an Environmental Advisory Committee. Manitoba Transportation and Infrastructure has initiated this discussion in response to Indigenous group and stakeholder concerns regarding environmental mitigation and monitoring. Manitoba Transportation and Infrastructure anticipates that the Committee will manage Indigenous Environmental Monitors and communications during the construction period, and will be working with Indigenous groups and stakeholders on the structure and purpose.</p> <p>Monitoring programs are enhanced when local community members with experience in the landscape of the RAA are engaged in monitoring. Manitoba Transportation and Infrastructure is investigating opportunities for Indigenous participation in monitoring programs. This includes exploring opportunities for Indigenous training initiatives related to the Project. As an example, Manitoba Transportation and Infrastructure is coordinating with Manitoba Economic Development and Training, Indigenous Services Canada, and FPDI to develop and deliver training of Indigenous peoples for ongoing Project activities, including construction and environmental monitoring. Provincial and federal funding is available to support this type of training and ongoing coordination with provincial, federal, and FPDI representatives will help to identify and develop applicable training for the Project. Manitoba Transportation and Infrastructure is working with FPDI to assist in the development of training opportunities for Indigenous peoples to support potential employment as part of construction and environmental monitoring activities. Ongoing discussions aim to ensure that labour force requirements are known and that Indigenous groups have opportunities to become trained and prepared to participate in the Outlet Channels Project workforce. Discussions with FPDI are ongoing to identify anticipated jobs as well as construction scheduling and sequencing to enable FPDI to initiate training as appropriate. The intent is to facilitate opportunities for Indigenous groups to have a trained and ready workforce to participate in Project works. Discussions with FPDI are ongoing and anticipated to continue as a means of facilitate training opportunities for Indigenous groups for technical positions, in addition to cleaning, cooking, or other services that would otherwise be possible.</p>

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Table IAAC-122-1 Summary of Potential Effects on Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Consultation/Engagement Input	Species/Locations Identified	Project Effects	Mitigation	Monitoring and Follow Up
				<p>Manitoba Transportation and Infrastructure is committed to ongoing consultation and engagement with Indigenous groups that are potentially impacted by the Project, as outlined in the ICSEER (Volume 1, Appendix 5C of the Project EIS). Manitoba Transportation and Infrastructure will review any information about habitation, cultural and spiritual sites that York Factory First Nation may bring forward and incorporate into regulatory reporting and Project planning as appropriate.</p>

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