Mitigation Measures

Effected Media/Scenario	Other Relevant Section	Mitigation Measures
PHYSICAL ENVIRONMENT		
Surface Water and Groundwater	▪ Fish and Fish Habitat ▪ Species at Risk: Turtles ▪ Aquatic Wildlife and Vegetation: Aquatic Vegetation ▪ Soils and Marine Sediments	▪ Turbidity curtains shall be in accordance with the contract specifications and shall be installed per the manufacturer's instructions. ▪ Turbidity curtains are to remain functional until work in the enclosed area is completed. ▪ Baseline monitoring of surface water quality and continuous monitoring during construction activities. Should conditions exceed the project-specific guidelines identified in the Detailed Design at any time, work will cease; in this scenario, additional water quality sampling will take place at a greater frequency, the source of contamination determined, and corrective actions implemented prior to work recommencing. ▫ During remediation and post-remediation, water quality samples will be collected by the Departmental Representative using a grab sampling method (e.g., telescopic pole and cup) at select, pre-determined sampling stations throughout the Site (i.e., the DFO-owned water lot), including at sediment dewatering discharge point during remediation. ▫ In-situ physical measurements (e.g., temperature, dissolved oxygen, pH, conductivity, and turbidity) will be collected at each monitoring location. ▪ Total suspended solids (TSS) monitoring should be conducted pre-construction, during construction, and post-construction. The CCME Canadian Water Quality Guidelines for the Protection of Aquatic Life (CCME, 1999) should be used, or guidelines identified in the Detailed Design, whichever is more appropriate given background measurements. ▫ For clear flow/non-turbid waters: Maximum TSS increase of 25 mg/L from background levels for any short-term exposure (e.g., 24-hour period). Maximum average increase of 5 mg/L from background levels for longer term exposures (e.g., inputs lasting between 24 hours and 30 days). ▫ For high flow or turbid waters: Maximum TSS increase of 25 mg/L from background at any time when background levels are between 25 and 250 mg/L. Should not increase more than 10% of background levels when background is ≥250 mg/L. ▫ TSS samples will be collected by the Departmental Representative from pre-determined stations around the water lot, including at a minimum: - Upstream inputs (i.e., Pringle Creek) outside of the zone of construction influence (i.e., >30 m from confluence with Whitby Harbour). - Throughout the Site (immediately outside of isolated areas and in areas of potential influence [i.e., adjacent to staging/access areas]). - Far-field location within the Site near confluence with Lake Ontario.

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		▫ During the remediation phase, water quality will be measured daily and in 2-to-3-hour intervals during dredging. Should conditions exceed the guidelines at any time, work will cease; in this scenario, additional water quality sampling will take place at a greater frequency, the source of sedimentation determined, and corrective actions implemented prior to work recommencing. ▪ Completion of Erosion and Sediment Control (ESC) Plan, as identified in the specifications in addition to delineated work areas, and erosion protection of exposed soils, TSS monitoring, sediment protection along shorelines, identified on the contract drawings. ▪ ESC measures will be installed to prevent sediment-laden runoff from entering the water according to the Erosion and Sediment Control Plan and contract drawings.. These measures will be removed post-remediation once the risk of Project-related erosion and sedimentation has passed (e.g., re-establishment of vegetation). ▪ During remediation, at minimum, ESC measures will be inspected once every seven (7) days by a qualified person who has training in ESC. ▫ ESC measures will also be inspected at critical times when erosion or sediment releases could occur such as within 24 hours of heavy or prolonged rainfall. Deficiencies documented during ESC inspections will be corrected promptly with maintenance documented. ▪ Spill Prevention and Response Plan, as identified in the Environmental Protection Plan (EPP), including spill kit locations and staff training requirements. ▪ An impermeable geomembrane will be installed in the Temporary Storage Area to prevent water from the dewatering sediments from seeping into the ground. This will be monitored as per the design specifications. ▪ Contaminated water from dredged sediments and equipment decontamination will be subject to the porewater management requirements of the specifications which identify the management and treatment of porewater discharge. ▪ Routine cleaning and maintenance of contaminant sources. ▪ Waste Management Plan, as identified in the specifications. ▪ Post-remediation restoration of terrestrial and aquatic vegetation to stabilize soils and sediments from erosion and sedimentation. ▫ Aquatic habitat (i.e., fish habitat) will be restored so that substrate, vegetation, and cover habitat features are maintained or enhanced, such as overhanging vegetation along the shoreline. ▫ All exposed soils or disturbed areas that drain to any waterbody will be treated with seed and cover, post construction. The dewatering area will be re-established with grass post construction. Water and maintain seeded areas until grass or plant has emerged and growing. ▪ Departmental Representative will monitor post-remediation sediment quality via confirmatory sediment samples to identify post-dredging residuals within the remediated zones.
		▪ A Spill Prevention and Response Plan, as identified in the EPP, shall be developed to mitigate risks and deal with any chemical spills that may occur.

Effected Media/Scenario	Other Relevant Section	Mitigation Measures
Soils and Marine Sediments	▪ Surface Water and Groundwater ▪ Aquatic Wildlife and Vegetation: Aquatic Vegetation ▪ Terrestrial Wildlife ▪ Terrestrial Vegetation ▪ Cultural Landscape	▪ Staging and access will be limited to existing roads, trails, parkland and Harbour to limit disturbance to the Project area. ▪ Routine maintenance and inspection of contaminant sources, including the Temporary Storage Area, Equipment Decontamination Area, heavy equipment, and turbidity curtains isolating in-water work areas. ▪ Isolation of contaminant sources: ▫ Contaminated sediments will be stored in a Temporary Storage Area - An impermeable geomembrane will be installed in the Temporary Storage Area to prevent the dewatering sediments from contaminating soils. This will be monitored as per the design specifications. ▫ Vehicle and equipment decontamination areas will be contained with porewater treated prior to discharge. ▫ Turbidity curtains or other isolation methods will be applied as per specification. ▪ Spill kits and staff training ▪ Before entering the site, equipment should be cleaned. Suggested cleaning procedures are as follows: ▫ Knocking or scraping off soil and sweeping off loose soil. ▫ After soil removal, all equipment will be washed with a power washer and disinfected. The disinfectant must remain on the surface for a minimum of 15 minutes before being rinsed with clean water. ▫ Cleaning should focus on equipment or components subject to contact with soil, water and vegetative debris (i.e., boots, hand tools, tires, undercarriages, tracks, wheel wells, dredging equipment, fish and wildlife sampling equipment, boats), with disinfectant solution applied prior to entering the study site. ▫ Documentation of cleaned equipment and the cleaning process used will be recorded. ▪ Temporary disturbance areas will be reclaimed as soon as possible after completion of the construction activity in that area. ▪ Revegetation measures such as hydroseeding and planting of woody native species will be implemented as part of habitat restoration works, to support soil stabilization and prevent erosion and sedimentation. ▪ Monitor post-remediation sediment quality - see Surface Water and Groundwater. ▪ Completion of Erosion and Sediment Control Plan, as identified in the EPP, including Delineated work areas, and erosion protection of exposed soils. ▪ During remediation, at minimum, ESC measures will be inspected regularly by a qualified person who has training in ESC.

Effected Media/Scenario	Other Relevant Section	Mitigation Measures
		▫ ESC measures will also be inspected at critical times when erosion or sediment releases could occur such as within 24 hours of heavy or prolonged rainfall. ▫ Deficiencies documented during ESC inspections will be corrected promptly with maintenance documented.
Air Quality		▪ The EPP requires the contractor to address air quality and appropriate mitigations. ▪ As practicable, dredging equipment and conveyance methods with low emissions production should be selected to carry out sediment remediation. ▪ Routine maintenance of emission sources such as Industrial equipment and machinery involved in dredging and dewatering. ▪ If dustfall is generated, it will be monitored by the Departmental Representative and not exceed 7 g/m2 over a 30-day average, as per the Ontario Ambient Air Quality Criteria (AAQC). ▪ Routine maintenance of emission sources such as Industrial equipment and machinery involved in dredging and dewatering.
Local Climate	▪ Migratory Birds and Habitat	▪ Anti-idling policies on the Site. ▪ The EPP, as identified in the specifications. ▪ Design and plan activities and works in water such that loss or disturbance to aquatic habitat is minimized. ▪ Minimize need for vegetation removal by situating staging areas and access routes in existing open areas (e.g., parking lot, trails).
BIOLOGICAL ENVIRONMENT		
Fish and Fish Habitat	▪ Surface Water and Groundwater	▪ An Erosion and Sediment Control Plan, as identified in the specifications, should be developed and implemented for the Project. ▪ Access and work areas should be properly delineated to limit soil erosion and sediment transport by run off. ▪ Weather should be monitored to avoid conducting work during wet or rainy periods that may increase erosion and sedimentation. ▪ Erosion and Sediment Controls (ESC), such as a silt fence, should be installed according to best management practices along the perimeter of the water to prevent sediment laden runoff from entering the water. These measures should be maintained while construction activities are being conducted. ESC will be removed following the construction phase once the site is stabilized. ▪ Additional ESC should be implemented to prevent sediment from entering the water. This includes prohibiting washing of debris in the water and driving speed guidelines. ▪ Total suspended solids (TSS) - see Surface Water and Groundwater. ▪ In-water work will occur in accordance with timing windows stated within DFO-FFHPP Letter of Advice or Authorization. Once the design phase is completed, should dredging work be planned to take place outside of these timing windows, an exemption to the restricted activity timing window should be sought for the Project through consultation with the permitting authorities.

Effected Media/Scenario	Other Relevant Section	Mitigation Measures
		▫ If in-water work takes place with an exemption during the fall spawning window (September 15 – May 31), at least 60% of the harbour width should be left available for fish migration between Lake Ontario and Pringle Creek. ▪ DFO codes of practice should be applied to the Project including routine maintenance dredging (DFO, 2022), in-water site isolation (interim standard) (DFO, 2023) and end-of-pipe fish protection screens for small water intakes in freshwater (interim code of practice) (DFO, 2020). ▪ If hydraulic dredging is used, the discharge in the temporary storage area should be monitored for evidence of fish impingement. If impingement is discovered a change to the dredging methodology will be implemented. ▪ Terrestrial-based machinery should not be driven below the high-water mark (i.e., machinery should be operated on land in stable, dry areas). ▪ Machinery required for installation of isolation measures and dredging should be inspected and cleaned of plants, algae, and animals before it is deployed in water to prevent the spread of invasive species. ▪ The Project is located within the viral hemorrhagic septicemia (VHS) Management Zone as designated by the Ministry of Natural Resources and Forestry (MNRF) (MNR, 2007b). Detailed decontamination requirements in the specification should be followed. ▪ Fish habitat that is temporarily impacted by Project activities should be restored following Project activities. This should include restoring the habitat so that substrate, vegetation, and cover habitat features are maintained or enhanced. Further requirements for habitat compensation may be included in the conditions imposed by DFO-FFHPP. ▪ Minimize the extent of vegetation and rock removal in riparian areas to prevent bank failure and maintain vegetative cover for fish. ▪ Machinery should not be driven below the high-water mark. ▪ Turbidity curtains shall be in accordance with the contract specifications and shall be installed per the manufacturer's instructions. ▪ Turbidity curtains are to remain functional until transfer dock is removed and disturbed sediments have settled. ▪ Turbidity curtains must be installed around the perimeter of the work area prior to transfer dock construction and as close to the transfer dock as possible to minimize areas of impact from sedimentation. ▪ If invasive fish species (and other invasive aquatic species, e.g., Zebra Mussel and Rusty Crayfish) are captured during fish salvages, they shall not be relocated. If they are captured, they shall be anesthetized with clove oil then humanely euthanized and disposed of according to conditions outlined in the Licence to Collect Fish for Scientific Purposes acquired for the fish removal works. ▪ All Fish & Fish Habitat mitigation measures detailed in the previous sections are carried forward, as applicable. ▪ If mechanical dredging is used, the dredge bucket should not be overloaded, and multiple bites/grabs within a single attempt of the bucket is prohibited.

Effected Media/Scenario	Other Relevant Section	Mitigation Measures
		▪ Isolated areas should be monitored for dead fish, surface breathing behaviours, and alerted presence of invertebrates at the water surface. If dead/injured fish are observed, work should be suspended and DFO should be notified immediately. Work in the area may re-start after consultation with DFO and the cause of dead/injured fish has been adequately addressed. ▪ If the turbidity curtain becomes submerged due to flooding, a new fish salvage should be completed before work resumes. ▪ ▪ Restore sediment and affected bankline to pre-existing conditions or better with respect to fish habitat. ▪ No tools, equipment or ESC materials used for this Project should remain at the Site after Project is completed and ESC measures are no longer required.
Species at Risk: Turtles	▪ Aquatic Wildlife and Vegetation: Amphibians ▪ Aquatic Wildlife and Vegetation: Aquatic Vegetation ▪ Terrestrial Wildlife ▪ Species at Risk: Insects	▪ All work activities shall be conducted in accordance with the EPP . ▪ Precautionary signage will be installed along access road entrances/exits from the Site to alert truck drivers to the potential for turtles, other SAR, and wildlife on the roadways. ▪ Adhere to site-specific scheduling to avoid work during specific timing windows or meet alternative requirements as may be established through permitting authorities (such as MNRF). ▫ In-water work: no requirement from Ministry of the Environment, Conservation and Parks based on assessment completed at the project area that there are no species at risk or their habitat that could be negatively affected by the project; and ▫ Terrestrial work disturbing soils, shorelines, and vegetation: Turtle nesting period between May 20 and July 10 - The contract drawings require the construction of reptile and amphibian exclusion fencing around potential nesting areas, such as granular stockpiles (sand, gravel) and access roads, to prevent turtles from accessing the area. ▪ Terrestrial vegetation clearing should occur between October 1 and March 31, outside of the turtle active season. If vegetation clearing take place outside the this period, a Qualified Biologist will conduct a sweep of the area to ensure no turtles are present, or as per permitting authorities requirements. ▪ The contractor's EPP shall detail measures and procedures for preventing turtles from accessing and nesting within the work site and stockpiled materials during all Project phases. The EPP, as identified in the specifications will include SAR training materials, procedures, and a record of all persons who have completed SAR training. - ▪ Species at Risk Awareness Training shall be provided to all personnel conducting work at the Site, prior to commencement of work, to establish familiarity with SAR potentially present and reporting requirements. Training will include:

Effected Media/Scenario	Other Relevant Section	Mitigation Measures
		▫ Notification of worker obligations, liabilities and responsibilities under the Endangered Species Act and Species at Risk Act, including Site-specific areas where each apply; ▫ Up-to-date listing and information on SAR that may be present in the Project Site; ▫ Photos of each SAR and how to identify each species; ▫ Details on habitat and where SAR are likely to be found so workers can avoid harming animals in their daily routine; ▫ Routine monitoring for SAR prior to starting up equipment for the first time each day; ▫ Site-specific threats to SAR and how they are being addressed (e.g., via mitigation); ▫ Commitments to SAR protection and reporting procedures and requirements, including what to do if SAR is encountered or injured. ▪ Incidental encounters with turtles, including nests shall abide by the following procedures: ▫ Immediately stop all work within the area (~10m) of the encounter. ▫ Do not approach or handle the turtle unless it is in immediate peril. ▫ Identify and, if possible, photograph the turtle. ▫ Immediately notify the on-site Departmental Representative, who will contact a Qualified Biologist or Aurora District MNRF (905-713-7400) for species-specific advice and mitigation measures. - If a turtle is injured, immediately call Ontario Turtle Conservation Centre (OTCC) at 705-741-5000 and follow their instructions. Unless otherwise directed by OTTC, place the turtle in a well-vented plastic container with a secure lid, and do not offer food or water. Keep it in a cool, dark place. ▫ Do not resume work until the turtle has left the Site naturally or has been relocated under the direction of a Qualified Biologist. ▫ Turtles shall be handled according to the MECP Ontario Species at Risk Handling Manual. ▫ Do not resume work until mitigation measures have been inspected and, if required, repaired, or installed to prevent impacts (e.g., around turtle nest). ▪ All turtle observations will be submitted to Ontario's Natural Heritage Information Centre (nhicrequests@ontario.ca) and on iNaturalist.ca. Observation information shall include, where possible: ▫ Location name and GPS coordinates; ▫ Date and time;

Effected Media/Scenario	Other Relevant Section	Mitigation Measures
		▫ Observer name and email; ▫ Species; ▫ Observation details (e.g., work activities in area, number of turtles, gender, life stage, health); and ▫ Picture(s). ▪ Refer to mitigation measures for Terrestrial Wildlife section in this table, as applicable. ▪ Prior to Site preparation activities, if work takes place during the turtle active season (April to October), a Qualified Biologist will conduct a sweep of suitable terrestrial habitats to ensure no turtles are present. ▪ Exclusion fencing will be installed and maintained in accordance with MNR (2013a) Reptile and Amphibian Exclusion Fencing: Best Practices Technical Note, and the location of fencing will be specified in the Site Layout Plan and/or EPP. Installation will occur where work areas abut wetland areas to prevent the migration of herpetofauna into the access, staging and construction areas, prior to the initiation of all construction activities. Details of the fencing include the following: ▫ Exclusion fencing should consist of a silt fence or other similar fencing with fine mesh hardware cloth of ¼ to ½ inch (on the wildlife/habitat side of the fence) buried at least 10 cm into the soil, with a recommended height of 60 cm. ▫ All fencing should be securely fastened so that there are no gaps between the fence posts through which herpetofauna could pass. ▫ To prevent individuals from climbing the fence, the stakes or posts should be placed on the construction activity side of the fence and/or as recommended by MNRF. ▫ The exclusion fencing should be installed prior to construction activities, during a period of inactivity for the reptiles (i.e., October through March) and maintained throughout the active season for reptiles (April to October). ▪ Wildlife exclusion fencing shall be inspected by a competent personnel at least twice weekly for breaches and/or gaps and following any storm events (heavy rainfall) that may dislodge fencing and repairs made as necessary. ▪ If exclusion fencing has not been installed prior to the active season (April to October), the Site must be monitored by a trained personnel throughout each day for turtle nesting activity. ▫ Follow established procedures for encounters with turtles on Site, as per the EPP. ▫ Turtles and turtle nests cannot be relocated without a permit from Aurora District MNRF. ▫ Without permit for relocation, no work shall take place within a 5-metre radius of the nest until it has hatched or as otherwise directed under the advice of Aurora District MNRF. Any nest discovered should be protected by a nest protector placed directly over the nesting site and remain in place until hatchlings have emerged. Between August 15 and September 30, the nest shall be monitored twice daily (e.g., 9am and 5pm) for

Effected Media/Scenario	Other Relevant Section	Mitigation Measures
		hatchlings. Hatchlings will be transported and released to Pringle Creek upstream of the Brock Street bridge. The nest protector should remain in place and continue to be monitored for 5 days following the emergence of the first hatchling. ▪ Turbidity curtains – see Surface and Groundwater. ▪ No Project activities shall take place in Wetland #1 (Pringle Creek) or Wetland #7 (northwest of Whitby Yacht Club) of the Provincially Significant Wetland Complex, as delineated in MNR (2007a) ▪ In-water works will be conducted following the construction schedule, avoiding the turtle overwintering period (October to April), or as per timing advice and/or permit requirements from permitting authorities. ▪ In-water works for each sub-section of the dredging footprint, should be completed within a single open water season to limit disturbance to turtles and turtle habitat. ▪ Prior to in-water work, an aquatic wildlife (i.e., fish, frogs, turtles, crayfish) salvage will be completed within the isolated work areas and as per requirements by permitting authorities. Salvage efforts will be led by a Qualified Biologist. ▫ Prior to the wildlife salvage and relocation, a Wildlife Scientific Collector's Authorization (WSCA) from an Aurora District MNRF will be obtained, and licence conditions will be followed. ▫ Animal care and handling protocols will be approved by the MNRF Wildlife Animal Care Committee, or otherwise as required by the WSCA. ▫ Turtles will be handled according to the MECP Ontario Species at Risk Handling Manual. ▫ Any other aquatic species incidentally captured will be relocated as directed in the conditions of the WSCA. ▫ If an unusual flood submerges the turbidity curtain, work will not resume until a new aquatic wildlife salvage and removal operation is completed by a Qualified Biologist. ▪ Construction of Transfer Dock will occur within an area isolated by a turbidity curtain and only after an aquatic wildlife salvage has been conducted by a Qualified Biologist. ▪ Dredging and capping will be conducted following the construction schedule, avoiding the turtle overwintering period (October to April). If the overwintering period cannot be avoided, dredge areas will be isolated prior to the overwintering period to avoid encountering overwintering turtles or as per timing advice and/or permit requirements from permitting authorities (ie. CLOCA and MNRF). ▪ Shoreline stabilization should consider a natural design that incorporates suitable nesting features for turtles (i.e., southwest slope with sun exposure, 2:3 gravel and sand mixture). ▪ Removal of Transfer Dock will occur within an area isolated by a turbidity curtain and only after an aquatic wildlife salvage has been conducted by a Qualified Biologist.

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		▪ Removal of Transfer Dock will avoid the turtle overwintering period (October to April) or as per timing advice and/or permit requirements from permitting authorities (ie. CLOCA and MNRF). ▪ No tools, equipment, wildlife fencing, or ESC materials used for this Project should remain at the Site after Project is completed and ESC measures and wildlife fencing are no longer required.
Species at Risk: Birds	▪ Species at Risk: Insects ▪ Migratory Birds and Habitat	▪ All work activities shall be conducted in accordance with the EPP , that describes the key Project activities with the potential to affect wildlife and describes mitigation requirements. ▪ Beginning prior to and continuing through the Barn Swallow and Bank Swallow breeding season (April 1 to August 31; or, when adults are first seen, whichever is earlier, until August 31), stockpiled dredged materials and debris, including the earthen berm surrounding the dewatering area, should be made and maintained to be unsuitable for Bank Swallow nesting following methods detailed in Best Management Practices for the Protection, Creation and Maintenance of Bank Swallow Habitat in Ontario (MNRF, 2017b), such as: ▫ Reducing slopes to 70° or less; ▫ Placing geotextile, plastic covers or tarping over slope faces or stockpiles; or ▫ Grading and mechanically altering the slopes on extraction faces. ▪ Twice daily environmental monitoring shall inspect for signs of Bank Swallows nesting in stockpiled silty or sandy materials and the earthen berm surrounding the dewatering area. ▪ Should Bank Swallows begin excavating nests in stockpiled materials on Site, all work must stop immediately in the area and protection measures must be implemented, as detailed in Best Management Practices for the Protection, Creation and Maintenance of Bank Swallow Habitat in Ontario (MNRF, 2017b). Consult York-Durham MECP District regarding additional measures to avoid impacts that may be required before work can restart. ▪ Exclusion methods to prevent Barn Swallows from nesting on temporary buildings and structures should be used, such as fine-mesh netting, as described in Best Management Practices for Excluding Barn Swallows and Chimney Swifts from Buildings and Structures (MNRF, 2017c). ▪ Twice daily environmental monitoring shall inspect buildings and temporary structures within the Site for Barn Swallow nesting activity. ▪ Should Barn Swallows begin nesting within the Site, all work must stop immediately in the area, providing at least a 5-metre radius surrounding the nest (MNR, 2013b). Consult Ontario Region ECCC[1] regarding additional measures to avoid impacts that may be required before work can restart. ▪ Additional mitigation measures listed under Migratory Birds and Habitat in this table.

[1] Note that as Barn Swallow is listed as Special Concern under the ESA in Ontario, it does not receive specific protections under that Act; however, it is listed as Threatened federally and is also a Migratory species, therefore it is under the jurisdiction of ECCC via the SARA and MBCA.

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Species at Risk: Insects	▪ Species at Risk: Birds	▪ All work activities shall be conducted in accordance with the EPP, that describes the key Project activities with the potential to affect wildlife and describes mitigation requirements. ▪ If Milkweed (Asclepias sp.) is in an area where disturbance or removal is necessary, the plant(s) should be inspected by a Qualified Biologist for any signs of Monarch, such as eggs, caterpillars, or chrysalides. If any of these stages of Monarch is identified, contact Aurora District MNRF to determine an appropriate course of action prior to disturbance or removal of the plant(s). ▪ If removal of Milkweed is required, include the species in seed mix during restoration of the area.
Migratory Birds and Habitat	▪ Local Climate ▪ Species at Risk: Birds	▪ The contract drawings are to identify areas of limited use and non-use, and to divide the Project Site for sequencing progressive construction works. ▪ All work activities shall be conducted in accordance with the EPP, that describes the key Project activities with the potential to affect wildlife and describes mitigation requirements. ▪ Design and plan activities and works in water - see local climate section. ▪ Minimize need for vegetation – see local climate section ▪ Adhere to site-specific scheduling to avoid work during specific timing windows. ▪ Adhere to “Guidelines to reduce risk to migratory birds” (ECCC, 2021), such as: ▫ During the breeding season, minimize sources of disturbance operating simultaneously and maintain low or below ambient noise in natural areas (< 10 decibels above ambient and does not exceed 50 decibels overall). ▫ Determine presence of occupied nests prior to conducting work that may disturb, damage, destroy, or harm birds and their nests. ▫ Halt disruptive activities around active nests and maintain a setback or buffer zone around active nest(s) until the young have naturally and permanently left the vicinity of the nest. ▪ Restrict vegetation clearing to the period between September 1 and March 30, which falls outside of the core nesting period in Canada Nesting Zone C2 to prevent harm or destruction of bird nests and contravention of the Migratory Birds Convention Act and its regulations. ▫ Should clearing of migratory bird habitat be required during the core nesting period (April 1 – August 30), a nest survey must be conducted by a Qualified Biologist immediately (i.e., within 3 days) prior to commencement of the works to identify and locate active nests of species covered by the MBCA and its regulations. A mitigation plan, which will include establishing appropriate buffers around active nests, should then be developed to address any potential risks to active nests and maintain compliance with the Migratory Birds Regulations, 2022. ▪ The Contractor’s Wildlife Protection and Management Plan shall detail measures and procedures for preventing wildlife from accessing and nesting within the work site and stockpiled materials during all Project phases. ▪ Incidental encounters with nesting waterfowl or other birds (i.e., nests with eggs or mobile hatchlings) shall abide by the following procedures:

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		▫ Immediately stop all work within the area (~10m) of the encounter. ▫ Do not approach or handle birds unless it is in immediate peril. ▫ Immediately notify the on-site Environmental Monitor, who will contact a Qualified Biologist for species-specific advice and mitigation measures. ▫ Do not resume work until the bird(s) have left the Site naturally or has been relocated under the direction of a Qualified Biologist. ▪ Design and plan activities and works in water such that loss of or disturbance to aquatic habitat is minimized.
Whitby Harbour Wetland Complex Provincially Significant Wetland		▪ Coastal wetland (Wetland #7 [MNR, 2009]) is outside the project area and has a buffer of at least of 30 metres established to prevent incidental damage to the habitat. ▪ Restoration of rare costal wetland (Wetland #2) as described in MNR (2007a) and delineated in MNR (2009) will occur immediately following disturbance in consultation with CLOCA and Aurora District MNRF. ▪ Additional mitigation measures listed under Aquatic Vegetation in this table.
The Aquatic Wildlife and Vegetation: Amphibians	▪ Terrestrial Wildlife ▪ Species at Risk: Turtles ▪ Aquatic Wildlife and Vegetation: Aquatic Vegetation	▪ All work activities shall be conducted in accordance with a the EPP that describes the key Project activities with the potential to affect wildlife and describes mitigation. ▪ Precautionary signage will be installed along access road entrances/exits from the Site to alert truck drivers to the potential for wildlife on the roadways. ▪ At dusk and dawn, speeds on Site will be reduced to 10 km/h or less and project personnel will be instructed to watch for wildlife to avoid collisions. ▪ Any intake pumps and their screens will be monitored by an Environmental Monitor for aquatic species impingement. ▪ If an amphibian is encountered, work in the area will stop and the amphibian shall be provided a safe corridor to leave the area naturally. ▫ If after 24 hours the species remains in the area, a Qualified Biologist may relocate the individual as permitted by a WSCA from the Aurora District MNRF. ▫ Amphibians will be handled according to the MECP Ontario Species at Risk Handling Manual. ▪ If an amphibian is injured, stop work in the area until measures to protect and remove the individual from further harm are taken. Contact Toronto Wildlife Centre at 416-631-0662 and follow directions provided. Until assistance can be provided by qualified professionals, place the individual in a well-ventilated plastic container lined with damp paper tower and with a secure lid. Do not offer food or water. Keep in a cool, dark place. ▪ Additional mitigation measures listed under Fish and Fish Habitat in this table. ▪ Prior to Site preparation activities, if work takes place during the amphibian active season (April to October), a Qualified Biologist will conduct a sweep of suitable terrestrial habitats to ensure no amphibians are present.

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		▪ Exclusion fencing will be installed and maintained in accordance with MNRF (2016a) Best Management Practices for Mitigating the Effects of Roads on Amphibian and Reptile Species at Risk in Ontario, and the location of fencing will be specified in the Site Layout Plan and/or EPP. Installation will occur where work areas abut wetland areas to prevent the migration of herpetofauna into the access, staging and construction areas, prior to the initiation of all construction activities. Details of the fencing include the following: ▫ Exclusion fencing should consist of a silt fence or other similar fencing with fine mesh hardware cloth of ¼ to ½ inch (on the wildlife/habitat side of the fence) buried at least 10 cm into the soil, with a recommended height of 60 cm. ▫ All fencing should be securely fastened so that there are no gaps between the fence posts through which herpetofauna could pass. ▫ To prevent individuals from climbing the fence, the stakes or posts should be placed on the construction activity side of the fence and/or as recommended by MNRF. ▫ An additional 10 cm horizontal lip overhanging the wildlife/habitat side of the fence should be installed to prevent snakes and frogs or toads from climbing over the top. ▫ The exclusion fencing should be installed prior to construction activities, during a period of inactivity for reptiles and amphibians (i.e., October through March) and maintained throughout the active season for reptiles and amphibians (April to October). ▪ No Project activities shall take place in Wetland #1 (Pringle Creek) or Wetland #7 (northwest of Whitby Yacht Club) of the Provincially Significant Wetland Complex, as delineated in MNR (2007a). ▪ In-water works will be conducted following the construction schedule, avoiding the reptile and amphibian overwintering period (October to April) or as per timing advice and/or permit requirements from permitting authorities (ie. CLOCA and MNRF).. ▪ In-water works will be completed within a single open water season to limit disturbance to amphibians and amphibian habitat. ▪ Prior to in-water work, an aquatic wildlife (i.e., fish, frogs, turtles, crayfish) rescue will be completed within the isolated work areas. Rescue efforts will be led by a Qualified Biologist. ▪ Prior to the wildlife salvage and relocation, a Wildlife Scientific Collector's Authorization (WSCA) from an Aurora District MNRF will be obtained, and licence conditions will be followed. ▪ Animal care and handling protocols will be approved by the MNRF Wildlife Animal Care Committee, or otherwise as required by the WSCA. ▪ Amphibians will be handled according to the MECP Ontario Species at Risk Handling Manual. ▪ Any other aquatic species incidentally captured will be relocated as directed in the conditions of the WSCA. ▪ If an unusual flood submerges the turbidity curtain, work will not resume until a new aquatic wildlife rescue and removal operation is completed by a Qualified Biologist.

Effected Media/Scenario	Other Relevant Section	Mitigation Measures
		▪ Dredging and capping in wetland habitat will be conducted following the construction schedule, avoiding the reptile and amphibian overwintering period (October to April) or as per timing advice and/or permit requirements from permitting authorities (ie. CLOCA and MNRF). ▪ No tools, equipment, wildlife fencing, or ESC materials used for this Project should remain at the Site after Project is completed and ESC measures and wildlife fencing are no longer required.
Aquatic Wildlife and Vegetation: Benthic Invertebrates	▪ Soil and Marine Sediments ▪ Species at Risk: Turtles ▪ Aquatic Wildlife and Vegetation: Amphibians ▪ Terrestrial Vegetation ▪ Cultural Landscape	▪ All work activities shall be conducted in accordance with the EPP, that describes the key Project activities with the potential to affect aquatic wildlife and habitat and describes mitigation. ▪ All work activities will be conducted in accordance with the EPP. ▪ An Erosion and Sediment Control Plan should be developed and implemented for the Project, as identified in the specifications.. ▪ No Project activities shall take place in Wetland #1 (Pringle Creek) or Wetland #7 (northwest of Whitby Yacht Club) of the Provincially Significant Wetland Complex, as delineated in MNR (2007a). ▪ Staging and access will be limited to existing roads, trails, parkland and marina to limit disturbance to the Project area. ▪ For project activities near treed wetlands, tree protection zones will be established by a Qualified Arborist[2] and revisited as needed. ▪ Revegetation measures such as planting of riparian and aquatic vegetation will be implemented as part of habitat restoration works, to support shoreline development and recreational use. ▪ All aquatic vegetation mitigation measures detailed in the previous section are carried forward, as applicable. ▪ All work activities shall be conducted in accordance with the Project's Vegetation Management Plan. ▪ All equipment, including vehicles, will arrive clean and free of soil or vegetative debris to minimize the potential for spread of noxious weeds. ▪ To prevent the introduction of new weedy species to the site and specifically native vegetation areas, all equipment used for soil manipulation will be pressure-washed and disinfected prior to entering the Site. ▪ Before entering the site, equipment should be cleaned – See Soil and Marine Sediments: ▪ All vegetation will be maintained outside of the work areas. ▪ Turbidity curtains – see Surface water and Groundwater section. ▪ Transfer Dock construction materials should consist of clean clear stone and gabion stone.

[2] A Qualified Arborist is an expert in the care and maintenance of trees certified by the International Society of Arboriculture (ISA).

Effected Media/Scenario	Other Relevant Section	Mitigation Measures
		▪ All exposed soils or disturbed areas – see Surface Water and Groundwater. ▪ Sediment and erosion protection measures will remain in place until vegetation is re-established. The effectiveness of the revegetation for shoreline habitat restoration or landscaping, will also be evaluated 12 months after the work to ensure that the survival rate of the vegetation or canopy. ▪ Temporary disturbance areas will be reclaimed as soon as possible after completion of the construction activity in that area. ▪ All vegetation will be maintained outside of the work areas and working areas reduced to the extent possible. ▪ Localize sediment movement into the water column during removal by use of turbidity curtains where appropriate. ▪ Materials that result from the installation, use or removal of the Transfer Dock or that are disturbed by same, shall be removed or prevented from entering the waterbody. ▪ Remove turbidity curtains in a manner that contains accumulated sediment with removal taking place after sufficient settling has taken occurred in the isolated areas. ▪ Sediment and erosion protection measures remain in place until vegetation is re-established. ▪ Ensure restoration planting activities do not introduce invasive species by implementing an inspection and cleaning program for equipment used in restoration activities. ▪ The Departmental Representative will implement post construction monitoring to track and control the establishment of invasive species
Terrestrial Wildlife	▪ Soils and Marine Sediments ▪ Species at Risk: Turtles ▪ Aquatic Wildlife and Vegetation: Amphibians	▪ All work activities shall be conducted in accordance with a the EPP that describes the key Project activities with the potential to affect wildlife and describes mitigation requirements. ▪ Precautionary signage will be installed along access road entrances/exits from the Site to alert truck drivers to the potential for wildlife on the roadways. ▪ Established construction zone speed limits will be obeyed by all operators of all vehicles and equipment to reduce the risk of collisions with wildlife. ▪ At dusk and dawn, speeds on Site will be reduced to 10 km/h or less and project personnel will be instructed to watch for wildlife to avoid collisions. ▪ Work areas will be kept clean and free of debris or materials that may pose hazard to wildlife via consumption or entanglement. ▪ Garbage or waste will be properly disposed of as per the Waste Management Plan, as identified in the specifications to avoid attracting wildlife. ▪ If wildlife is encountered on Site, work in the area will stop and the species shall be provided a safe corridor to leave the area naturally. ▫ If after 24 hours the species remains in the area, a Qualified Biologist may relocate the individual as permitted by a WSCA from the Aurora District MNRF.

Effected Media/Scenario	Other Relevant Section	Mitigation Measures

- Birds, reptiles and amphibians will be handled according to the MNRF (N.D.) Ontario Species at Risk Handling Manual.
- In the event the species is listed as Threatened or Endangered, contact York-Durham MECP and Ontario Region ECCC to determine if a permit under ESA or SARA is required.

- If the encountered wildlife species is injured, stop work in the area until measures to protect and remove the individual from further harm are taken. Contact Toronto Wildlife Centre at 416-631-0662 and follow directions provided. Until assistance can be provided by qualified professionals, place the individual in a well-ventilated plastic container with a secure lid. Do not offer food or water. Keep in a quiet, dark place at room temperature (should never exceed 30°C or drop below 15°C).
- Prior to Site preparation activities, if work takes place during the snake active season (April to October), a Qualified Biologist will conduct a sweep of suitable terrestrial habitats to ensure no snakes are present.
- Exclusion fencing will be installed and maintained in accordance with MNRF's 2016 Best Management Practices for Mitigating the Effects of Roads on Amphibian and Reptile Species at Risk in Ontario, and the location of fencing will be specified in the contract drawings . Installation will occur where work areas abut natural areas (wetland, meadow, woodlot) to prevent the migration of wildlife into the access, staging and construction areas, prior to the initiation of all construction activities. Details of the fencing include the following:
  - Exclusion fencing should consist of a silt fence or other similar fencing with fine mesh hardware cloth of ¼ to ½ inch (on the wildlife/habitat side of the fence) buried at least 10 cm into the soil, with a recommended height of 60 cm.
    - Geotextile fencing with nylon mesh lining should not be used as it risks entanglement by snakes.
  - All fencing should be securely fastened so that there are no gaps between the fence posts through which herpetofauna could pass.
  - To prevent individuals from climbing the fence, the stakes or posts should be placed on the construction activity side of the fence and/or as recommended by MNRF.
  - An additional 10 cm horizontal lip overhanging the wildlife/habitat side of the fence should be installed to prevent snakes and frogs or toads from climbing over the top.
  - The exclusion fencing should be installed prior to construction activities, during a period of inactivity for reptiles and amphibians (i.e., October through March) and maintained throughout the active season for reptiles and amphibians (April to October).
- Exclusion fencing will be monitored twice weekly at minimum to inspect for damage and defects, as well as following any storm event (e.g., heavy rainfall) that may dislodge fencing. Repairs will be carried out immediately, as necessary.
- Roads secured by exclusion fencing will be monitored daily for wildlife road mortalities.
  - Submit photographs of wildlife road mortalities to a Qualified Biologist for species identification, including a description of the location and site conditions.

Effected Media/Scenario	Other Relevant Section	Mitigation Measures
		▫ Inspect the fence for breaches. ▫ Follow advice of Qualified Biologist to prevent subsequent wildlife road mortality, if possible, and any other next steps recommended. ▪ Vegetation clearing will occur outside of the bat maternity roosting period (April 1 to September 30) or a biologist sweep will be required to check for bats for any tree to be removed. ▪ During vegetation clearing, if bats are observed flying from felled trees, work will stop immediately, and a Qualified Biologist will be contacted to assess the site and provide recommendations prior to any further selective removal of trees and contact Canadian Wildlife Service (ECCC) and MECP in the event that SAR bats are discovered. ▪ Prior to shoreline stabilization activities, work areas will be monitored by a Qualified Biologist for the presence of secretive wildlife, such as snakes. ▫ Individuals will be allowed to leave the area on their own. If this is not possible and wildlife must be relocated by hand a WSCA is required from the Aurora District MNRF, such as that which may be used for aquatic wildlife salvage. ▫ Reptiles and amphibians will be handled according to the MNRF (N.D.) Ontario Species at Risk Handling Manual. ▪ Temporary disturbance areas will be reclaimed as soon as possible after completion of the construction activity in that area. ▪ Revegetation measures – see Soils and Marine Sediments. ▪ No tools, equipment, wildlife fencing, or ESC materials used for this Project should remain at the Site after Project is completed and ESC measures and wildlife fencing are no longer required.
Terrestrial Vegetation	▪ Cultural Landscape	▪ All work activities will be conducted in accordance with the EPP. ▪ An Erosion and Sediment Control Plan should be developed and implemented for the Project, as identified in the specifications. ▪ Staging and access will be limited to existing roads, trails, parkland and Harbour to limit disturbance to the Project area. ▪ Damage to non-target trees is to be avoided, tree protection zones will be established by a Qualified Arborist and revisited as needed. Tree protection hoarding will be installed as detailed in Tree Protection Notes of the Town of Whitby ▪ Mulching of vegetation will only be used in specific situation where the quantity of vegetation to be removed will not impeded restoration of native vegetation. When mulching is the proposed method of vegetation clearing, disposal of the debris will be determined based on restoration objectives, non-native vegetation, and fire hazard mitigations. If mulching is used to clear vegetation, rough mulching is the preferred option. ▪ Any limbs or trees that must be removed will be done with a chainsaw or other appropriate equipment, not heavy equipment. Cuts will be close to the trunk and should be started with a shallow undercut followed by a top cut away from the trunk to minimize chance of bark tearing. After the branch has been removed the remaining stub will be cut to make a smooth surface.

Effected Media/Scenario	Other Relevant Section	Mitigation Measures
		▪ All stumps should be cut flush with the ground (to a maximum of 15 cm), and the ground cover left undisturbed to promote slope stability. If clearing operations are conducted during snow cover, the site must be revisited after snowmelt to flush cut stumps. Flush cutting stumps to a maximum of 5 cm height. ▪ Revegetation measures such as hydroseeding and planting of woody native species will be implemented as part of habitat restoration works, to support shoreline development and recreational use. ▪ Heavy equipment will be properly maintained and regularly inspected for leaks. A Spill Prevention and Response Plan, as identified in the specifications shall be developed to mitigate risks and deal with any chemical spills that may occur ▪ All equipment, including vehicles, will arrive clean and free of soil or vegetative debris to minimize the potential for spread of noxious weeds. ▪ To prevent the introduction of new weedy species to the site and specifically native vegetation areas, all equipment used for soil manipulation will be pressure-washed and disinfected prior to entering the Site. ▪ Before entering the site, equipment should be cleaned - see Soil and Marine Sediments section. ▪ All existing vegetation will be maintained outside of the work areas. ▪ Tree clearing may be required in some areas (excluding grubbing and stump removal) but will be limited to small areas. A biologist sweep will be required to check for bats and birds to remove any tree from May 1st to November 30th. ▪ Tree protection fencing will be implemented around those trees that will be preserved adjacent to disturbance areas ▪ All exposed soils or disturbed areas - see Surface Water and Groundwater. ▪ Revegetation measures such as planting of riparian vegetation will be implemented as part of habitat restoration works, to support shoreline development and recreational use. ▪ Sediment and erosion protection measures will remain in place until vegetation is re-established. The effectiveness of the revegetation for shoreline habitat restoration or landscaping, will also be evaluated 12 months after the work to ensure that the survival rate of the vegetation or canopy. ▪ Temporary disturbance areas will be reclaimed as soon as possible after completion of the construction activity in that area.
PHYSICAL AND CULTURAL HERITAGE		
Cultural Landscape	▪ Terrestrial Vegetation	▪ Minimize Project duration to the extent possible. ▪ Materials and construction equipment will be transported to and off Site, as required. Best efforts will be made to not stockpile any materials on Site. ▪ All work activities will be conducted in accordance with the EPP.

Effected Media/Scenario	Other Relevant Section	Mitigation Measures
	▪ Land Use, Visitor Experience and Recreation	▪ Staging and access will be limited to existing roads, trails, parkland and marina to limit disturbance to the Project area. ▪ Damage to non-target trees is to be avoided– see Terrestrial Vegetation. ▪ Any limbs or trees that must be removed – see Terrestrial Vegetation. ▪ All stumps should be cut flush – see Terrestrial Vegetation. ▪ Revegetation measures such as hydroseeding and planting of woody native species will be implemented as part of habitat restoration works. ▪ All existing vegetation will be maintained outside of the work areas. ▪ Tree clearing may be required in some areas (excluding grubbing and stump removal) but will be limited to small areas. ▪ Tree protection fencing – see Terrestrial Vegetation. ▪ Minimize Project duration to the extent possible. ▪ All exposed soils or disturbed areas - see Surface Water and Groundwater. ▪ Revegetation measures such as planting of riparian vegetation will be implemented as part of habitat restoration works, to support shoreline development and recreational use. ▪ Temporary disturbance areas will be reclaimed as soon as possible after completion of the construction activity in that area ▪ Minimize duration of decommissioning activities to the extent possible. ▪ Temporary disturbance areas will be reclaimed as soon as possible after completion of the decommissioning activity in that area
Archaeological Resources		▪ Ensure equipment is set up to have minimal ground disturbance during geotechnical activities. ▪ Main vehicular access routes and staging areas will be restricted to roadways and parking lots. If this is not possible, the use of protective covering such as geotextile protective mats with a wood chip lift or granular materials is recommended. ▪ “A” gravel is required. All protective covering must be removed following construction and the area restored to pre-construction state. Excavation is not permitted during installation or removal of protective covering. ▪ Should human remains be found during Project activities, immediately suspend all activities in the vicinity of the discovery and notify the police, DFO, and the Ministry of Heritage, Sport, Tourism and Culture Industries. ▪ If archaeological, cultural resources, or character-defining elements (e.g., structural features or artifact concentrations) are encountered or damaged during pre-construction or construction activities, work will cease in the immediate area, the findings will be left in place, marked with prominent flagging, and photographed, the DFO representative will be informed, and the Williams Treaty First Nations will be contacted. All exposed underwater cultural

Effected Media/Scenario	Other Relevant Section	Mitigation Measures
		materials will be kept submerged and/or wet while waiting for direction. In the case that the find occurs on provincial land, the Ministry of Heritage, Sport, Tourism and Culture Industries will also be notified. ▪ Should construction impacts extend beyond the area assessed in this report, further archaeological assessment of those areas should precede any construction activity. ▪ Should ruins be discovered during construction activities, all work must stop immediately, and the Departmental Representative must be informed. Work shall not continue in the area until clear direction has been provided by the Departmental Representative. ▪ The following advice on compliance with current legislation is provided for consideration: a. The Stage 1 & 2 Archaeologic Assessment report is submitted to the Minister of Heritage, Sport, Tourism and Culture Industries as a condition of licensing in accordance with Part IV of the *Ontario Heritage Act* (OHA), R.S.O. 2005, c O.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection, and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Heritage, Sport, Tourism and Culture Industries, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development. b. It is an offence under Sections 48 and 69 of the OHA for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such a time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the OHA. c. Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the OHA. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the OHA. d. The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 requires that any person discovering human remains must notify the local police or coroner and the Registrar of Cemeteries at the Ministry of Government and Consumer Services.
Indigenous Communities		▪ Minimize Project duration and in-water footprint to the extent possible. ▪ Do not exceed the maximum footprint in design drawings. ▪ Clearly identify and demarcate no-go zone(s) for the protection of Indigenous cultural/ heritage elements. ▪ Monitor and mitigate complaints and/or concerns by keeping a record and addressing any issues raised. ▪ With respect to archaeological finds, refer to mitigation measures for Archaeological Resources.

Effected Media/Scenario	Other Relevant Section	Mitigation Measures
		▪ Should artefacts be discovered during construction activities, all work must stop immediately, and the Departmental Representative must be informed. Work shall not continue in the area until clear direction has been provided by the Departmental Representative. ▪ Clearly identify and demarcate no-go zone(s) for the protection of Indigenous heritage/cultural elements. ▪ Contact the Williams Treaty First Nations (in addition to the Departmental Representative) if archaeological, cultural resources, or character-defining elements (e.g., structural features or artifact concentrations) are encountered or damaged during pre-construction or construction activities. Work will cease in the immediate area and the findings will be left in place, marked with prominent flagging and photographed. ▪ Consult with Indigenous communities throughout the duration of the project, as applicable. ▪ Implement a Traffic Management Plan, as identified in the specifications, including details on maintaining and protecting traffic on affected roads during the construction period. The plan should describe Traffic Control, the communications strategy used to inform the public and identify the possible risks and incidents that could occur, and how the contractor will respond to an incident. ▪ Project activities will need to be implemented in a manner that minimizes disruption, to the extent possible, to community character / aesthetics, business activity, and use and enjoyment of property by the public. ▪ Minimize Project duration to the extent possible. ▪ The following safety measures will be implemented prior to construction and maintained or changed following Project completion, as per DFO directives: ▫ Warning signs shall be installed at various locations informing the public that the deck area has restricted access; ▫ Provide adequate safety barriers and signs, using DFO templates, to restrict access to the Site and inform the public to stay out of the dredging area. ▪ Install signage prior to commencement of works describing anticipated timeline to allow users to plan their boating season and visits around the active construction. ▪ The contractor shall obtain permission to use existing roads/paths to access site. Maintain and repair damage incurred from use of roads/paths including providing photographic documentation of roads/paths used by construction vehicles before, during and after work. ▪ Conduct all work activities in accordance with the Project's Noise, Vibration, and Ambient Light Management Plan and the Town of Whitby Noise By-Law (By-Law 6917-14) ▪ Make use of engineering controls to modify equipment / machinery or the work area to reduce noise disturbance (e.g., substitute existing equipment with quieter equipment; retro-fit existing equipment with damping materials, mufflers, or enclosures; erect barriers; maintain equipment; etc.). ▪ Minimize the noise concerns from construction activities by conducting activities during appropriate times to reduce or minimize the effect of noise on nearby residents and recreational users.

Effected Media/Scenario	Other Relevant Section	Mitigation Measures
		▪ Minimize idling of construction equipment and machinery. ▪ Avoid excess and unnecessary noise. ▪ Any work required on weekends during the summer period will require approval from DFO. ▪ Limit noise-generating work activities to normal business hours on weekdays, limiting weekend work to the extent possible. ▪ Monitor and mitigate public complaints by keeping a record of complaints and addressing any issues raised by the public. ▪ Conduct all work activities in accordance with the EPP. ▪ Take corrective measures to reduce impacts to air quality and as required based on air quality monitoring. ▪ Suppress releases of dust using water mist or other appropriate methods of control during loading and unloading of loose materials, and other tasks as necessary. ▪ Use controlled work procedures in order to eliminate release of dust from construction works. Wash / clean vehicles, machinery, and equipment to reduce fugitive dust emissions. ▪ Erect shrouds around working areas to prevent dust and other airborne debris from entering the air or river. ▪ Soil / rock fill should not be dumped under high wind conditions. Stabilize areas of stockpiled or exposed soils. ▪ Fugitive dust levels measured as total suspended particulate at the property boundary shall not exceed the Ontario Ambient Air Quality Criteria of 120 micrograms per cubic metre (µg/m3) over 24 hours or 60 µg/m3 averaged over a year. For measuring methods, refer to the Canada-wide Standards for Particulate Matter and Ozone Ambient Air Monitoring Protocol. ▪ All heavy equipment should comply with the latest equipment specifications in the Off-Road Compression-Ignition Engine Emission and Large Spark-Ignition Engine Emission Regulations (SOR/2020-258) that contain emission standards for diesel engines used in off-road applications such as those typically found in construction. ▪ Maintain vehicles, machinery, and equipment in good repair, equipped with emission controls, as applicable, and operate them within regulatory requirements. ▪ Minimize operation and idling of gas-powered equipment and vehicles, in particular, during smog advisories. ▪ Inspection, washing, and cleaning of all vehicles, boats and equipment should be performed. ▪ Avoid activities with potential to release airborne particulates during windy and prolonged dry periods. ▪ Cover or otherwise contain loose materials that have potential to release airborne particulates during their transport, installation or removal.

Effected Media/Scenario	Other Relevant Section	Mitigation Measures
		▪ Restrict vehicle traffic to access roads to avoid traffic on exposed soils. ▪ Restore disturbed areas as soon as possible to minimize the duration of soil exposure. ▪ Work shall be carried out in compliance with CEPA, and applicable air emission regulations. ▪ Provide advanced notification and signage to inform public of the Project and associated impacts to public use. ▪ Minimize construction schedule and land use requirements to the extent possible. ▪ To the extent possible, time arrival and departure of construction vehicles around times of high activity (i.e., rush hours). ▪ Adhere to load restrictions consistent with the Town's road constraints for construction material delivery.
Aesthetic Values		▪ Minimize the duration of Project activities to the extent practical. ▪ Conduct all work activities in accordance with the EPP. ▪ All non-hazardous and hazardous wastes generated by the Project shall be collected, stored in secure / approved containers, and transported to a provincially approved facility for disposal on a regular basis. Storage of waste materials on-site should be avoided. ▪ Stockpiling of materials and staging equipment shall be undertaken in designated locations only and away from residences and other off-site community features. ▪ Clean-up all sites and repair all damages to lands utilized for Project activities. ▪ Monitor and mitigate public complaints by keeping a record of complaints and addressing any issues raised by the public. ▪ Immediately following Project completion, or earlier if feasible, revegetate the Site as per the specifications.
Navigation		▪ The Marina Supervisor working with the project team, shall ensure that all vessels have been removed from the dredge areas and areas of the harbour that may be traversed or isolated by the slurry disposal pipe (if used) prior to the commencement of dredging operations. ▪ The Marina Supervisor with the project team, will coordinate all activities at the marina and vessel activity in the harbour for the duration of the project so as to avoid unnecessary interference with area users. ▪ The Marina and Yacht club shall ensure that notice and details of the Project has been provided to as many members or vessel operators as possible through direct mail/newsletters and webmail. ▪ Maintain a minimum 10 m clear width of channel for the passage of recreational boaters at all times. Provide and locate necessary buoys to indicate temporary channel for passage. Pipelines will be sunk as required.

Effected Media/Scenario	Other Relevant Section	Mitigation Measures
		▪ The contractor crew shall maintain watch for boat traffic and move the dredger out of the traffic lane to permit passage past the pipe (if unavoidable). Crew shall monitor VHF for communication with other vessels enabling them to communicate with the crew and/or request passage past the pipe. ▪ The contractor shall implement an Anchoring Plan which will comply with navigation requirements within the harbour to minimize disturbance to other navigational uses of the harbour. This plan shall be reviewed by the department representative prior to dredging operations. ▪ The Project shall be announced in a “Notice to Shipping” through the Canada Coast Guard’s Prescott Marine Communications and Traffic Services Centre. ▪ The Watchkeeper at Keep Operations Centre, Canadian Coast Guard (CCG), Prescott, Ontario will be informed of dredging operations in order that necessary Notices to Shipping and Notices to Mariners will be issued. ▪ Access to the public boat launch area shall remain open to the public. ▪ Comply with all conditions of the Canadian Navigable Waters Act approval.