

Annex 7

Federal Indigenous Review Team (FIRT) – Advice to the Proponent for the Wheeler River Environmental Impact Statement (EIS) October 2024

**The [March 2023 Advice to the Proponent table](#) and [November 2023 Advice to the Proponent table](#) with Denison’s responses are available below

Ref. #	Department	Reference to EIS, appendices, or supporting documentation ¹	Context and Rationale	Advice to the Proponent	Denison’s Response October 24, 2024
AD-72	CNSC	Section 8.1.3.4.2 Probable Maximum Precipitation (PMP) Events Appendix 8C	In Section (List of Appendices, p. iv) of “S8_App 8-C Hydrological Effects Assessment Report Wheeler River” states “Appendix III- Response to IR-103”. This is incorrect and refers to IR-103.	This reference should be edited to “Appendix III- Response to IR-102.”	This has been corrected in the final EIS.
AD-73	Environment and Climate Change Canada (ECCC)	Section 2.2.3 Project Description Proponent response to IR-12-R1B	The Proponent provided maps of the proposed water management structures for the road to the airstrip and the airstrip in Attachment IR-12. However, they should commit to including them in the Final EIS. Inclusion of these maps will allow for improved understanding of site water management and transportation of non-contact water.	ECCC recommends that the Proponent include maps of the proposed water management structures for the road to the airstrip and the air strip, provided in Attachment IR-12, in the Final EIS.	Thank you for the advice comment. The information used to address the IRs associated with proposed site water management is extracted from the most current engineering design documents which will be further refined as the Project progresses through construction. Denison provides engineering design documents to the Province of Saskatchewan as part of the provincial permitting process. The engineering documents associated with the site water management plan become the single source of information as part of Denison’s Quality Management System. Denison will adhere to all site water management commitments outlined in the EIS, including any commitments listed within the IR responses.
AD-74	ECCC	Section 8 (Aquatic Environment); Appendix 10-A (ERA)	The predicted effluent concentration of 42 ug/L for the proposed Project represents a very high concentration of selenium. For comparison, the Canadian Council of Ministers of the Environment (CCME) guideline is 1 ug/L (January, 2022: Proposed Approach for Coal Mining Effluent Regulations – Discussion Document (canada.ca))	Given the high selenium concentrations predicted in the discharge, ECCC recommends that the Proponent: <ul style="list-style-type: none"> Identifies effective mitigation measures (including source control) to avoid effects in the receiving environment, and Analyzes the extent to which selenium concentrations in effluent can be reduced. 	Proposed effluent release to the environment starts at Operation phase and BATEA information will come with the application for the license to operate. Denison commits to following the guidance and requirements of REGDOC-2.9.2 to develop effluent discharge targets as per operational licensing and in consultation with the CNSC.
AD-75	ECCC	Section 2.2.3 Project Description Proponent response to IR-12	While the Proponent did provide in Attachment IR-12 the requested proposed water management structures, for the road to airstrip and the airstrip, the information surrounding the proposed water management structures is found within multiple documents which makes it difficult for readers to understand the resulting impacts to water quality.	The proposed water management structures for the road to airstrip and the airstrip should be included in the Final EIS to allow for the effects of these structures to be more readily understandable. Additionally, the Proponent should respond to questions within a single document to reduce the complexity involved in understanding the environmental effects of the Project.	Thank you for the advice comment. The information used to address the IRs associated with proposed site water management is extracted from the most current engineering design documents which will be further refined as the Project progresses through construction. Denison provides engineering design documents to the Province of Saskatchewan as part of the provincial permitting process. The engineering documents associated with the site water management plan become the single source of information as part of Denison’s Quality Management System. Denison will adhere to all site water management commitments outlined in

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					the EIS, including any commitments listed within the IR responses.
AD-76	ECCC	Section 8.4.4.2.3, Aquatic Environment IR-124-R1 Response from Denison	CSA N288.6-22 is the latest standard for the nuclear industry for the assessment of risk associated with releases from the nuclear industry to the environment. The statistical and environmental considerations required in the establishment of baseline data as well as the use of mathematical models are set out in the standard to ensure that the risk assessments are defensible.	The Proponent should apply CSA N288.6-22 to risk assessment for sediment where appropriate.	CSA N288 guidance documents are used in an integrated manner and Denison is confident the standards have been used appropriately.
AD-77	ECCC	Section 9.3.3.3, Baseline Studies Section 9.3.5 Mitigation Measures IR 142, 159, and 167 Responses from Denison IR-142-159-167-R1 IR-170	<p>It is unclear how conducting wildlife sweeps seven days in advance will adequately identify and mitigate for all species, especially species at risk. Similarly, uncertainty remains regarding how adaptive management mechanisms will be triggered.</p> <p>Note that active terrestrial nest searches for birds, including avian species at risk, are generally not recommended by ECCC or the province of Saskatchewan (Publications Centre (saskatchewan.ca)) because they are likely to cause disruption to breeding activities and are largely ineffective for passerines.</p> <p>However, if avian nest searches in simple habitats (as outlined in the Guidelines to avoid harm to migratory birds) are undertaken, then information should be provided on methods and timing for review. Conducting a nest search seven days in advance of works may be too far in advance to detect all possible nests. Nest searches should be conducted as close to the clearing or construction dates as possible. Developing species specific mitigation measures based on habitat potential mapping, prior to nest searches, can reduce construction delays, as advice on these measures would be available for implementation.</p> <p>For certain projects or locations, additional more specialized surveys may be warranted (e.g., radar surveys, or foot-based counts of colonially nesting birds).</p>	The Proponent should develop species specific mitigation measures, and provide these for review. Species specific mitigations should take into account the ecology of individual species at risk, including habitat requirements, nesting/denning or other important landscape features and timing of life stages as they relate to project construction and operation. The Proponent should conduct literature reviews to find proven mitigations for all species at risk within the project area. ECCC is available to discuss these measures with the Proponent.	Please see response to IR-142, IR-159, IR-167-R1 (Round 3).
AD-78	ECCC	Section 9.3.6.4 IR-149-R1B	In their IR response, the Proponent states "English River First Nation and SVS (2022) compiled an IK study documenting current and past land use, knowledge of the land, and participants' perspectives on potential Project effects, as well as cumulative effects from past mining and other developments. The report identified a wildlife corridor used by several species, including woodland caribou. The corridor runs between Cree Lake (approximately 40km southwest of the Terrestrial RSA and Russell Lake (in the southern portion of the Terrestrial RSA (Feature 1001-09; ERFN and SVS 2022). The report identified a caribou calving area: Feature 1009-07 covering large portions of the Terrestrial RSA with the exception of the most western, northern, and eastern extents. This area is also described as offering good caribou habitat year-round (ERFN and SVS 2022)."	Since both the mapping provided as part of the EIS and the English River First Nation study indicates that there is calving areas within the RSA, incorporating mitigation measures related to timing of sensory disturbances during calving season into the Caribou Management Framework would enhance the caribou management plan.	See response to IR-149-R1B (Round 3) and commitment 9-36 (in Denison's Commitments Register, version 3). Additional detail will also be documented as the EMS documentation evolves.

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			<p>The Proponent has also provided mapping showing that there are calving areas within the RSA.</p> <p>Calving is an important life history function that occurs within specific biophysical attributes. It is important to mitigate these effects.</p>		
AD-79	ECCC	Section 9.4.1.2, Key Indicators and Measurable Parameters IR-158	The Proponent identified key indicator species for migratory songbirds, waterbirds and upland game birds, but did not provide any justification on why these species were chosen. It is important to understand why a certain species was chosen as an indicator in order to assess whether the that species possesses similar life history characteristics.	<p>During pre-construction, construction and operational monitoring, the Proponent should consider any trends and changes to the avian community, including the key indicator species which are representative of other species that may be more difficult to monitor for implementation of adaptive management. (see IR-159 for additional input).</p> <p>Appendix 9-D provides an assessment of three additional key indicator species (Barn Swallow, Bank Swallows, Horned Grebe). All eight key indicators for avian species at risk should be accounted for.</p>	As outlined in the EIS, monitoring programs specific to avian species include routine monitoring / observations throughout the life of the Project in accordance with the EMS. This will include observations of any bird species, including the bird species at risk.
AD-80	ECCC	9.4.3.2.3 Baseline Studies – Migratory Songbirds Appendix 9-B, Section 2.10.2, Results IR-159	Although the Proponent notes that the supplemental data did not result in a different conclusion in the EIS and would not require updates to the mitigation measures, it was acknowledged that the data did provide further context for the RSA. Interpreting the original baseline data as well as the supplemental data in the context of the Project (i.e. what species were at what densities in which areas/ecosites) provides a more robust baseline with which to compare construction and operational monitoring data. This is particularly important in the context of species' natural variability.	Even if the supplemental data did not change the conclusions in the EIS, the data is essential for comparison reasons. Data collected during construction and operational monitoring should be compared with baseline data to test predications on impacts from the project, and whether mitigation measures are effective.	Thank you for the advice comment. The information contained in the IR comment and response process is part of the federal record. As outlined in the EIS, monitoring programs specific to avian species include routine monitoring / observations throughout the life of the Project in accordance with the EMS. This will include observations of any bird species, including the bird species at risk.
AD-81	ECCC	Section 9.3.3.3, Baseline Studies IR-143 and 144 Responses from the Proponent	<p>In their IR response, the Proponent notes that “the majority of these data points illustrated in Figure 2-2 and Figure 2-3 in revised draft EIS Appendix 9-F are located beyond the LSA and to the north and east of the Project Area.”</p> <p>ECCC notes that the baseline studies done for the Project were limited in scope and scale, and the map showing telemetry data from the province of Saskatchewan shows caribou use throughout the LSA and RSA.</p> <p>ECCC notes that trail camera, pellet, incidental and telemetry data only provide a small snapshot of actual habitat use.</p>	ECCC advises that the Caribou Management Framework should consider the entire LSA as being used by caribou for all their life functions and that mitigation measures, including offsetting, be developed with the understanding that this Project poses a medium level risk to caribou using the area.	<p>While the response to the round 2 IR-143 and IR-144 did explain baseline caribou observations to address ECCC's comments, it is important to note that the EIS assumed caribou to be present in the study areas throughout all seasons and life stages. Denison has committed to offsetting with SK ENV (see commitment 9-35 in Denison's Commitments Register, version 2).</p> <p>The advice comment from ECCC notes the project poses a “medium risk” to caribou but this is not consistent with the conclusions of the EIS and is not aligned with assessment approach framework (refer to Section 5 of the EIS for the approach and methodology of the assessment).</p>
AD-82	ECCC	Section 9.3.3.3, Baseline Studies IR-149-R1A IR-152.	ECCC notes that the Proponent indicates a commitment to continuing to work with the province regarding caribou offsetting through the finalization of the Caribou Management Framework.	ECCC notes that at this time there are not enough details in the Caribou Management Framework for ECCC to provide advice on the appropriateness of the offsetting measures.	Denison's EIS has concluded there are no significant effects on caribou; this conclusion is not reliant on habitat offsetting as a mitigation measure. Denison has provided the appropriate level of information for the purposes of EA review and has committed to offsetting with SK ENV (see commitment 9-35 in Denison's Commitments Register, version 3).

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AD-83	ECCC	Section 9.3.5.2, Additional Wildlife specific Mitigation Measures Proponent response to IR-149	<p>ECCC notes that Figure 2.4 of Appendix 9-F, shows that there is suitable calving habitat in close proximity to the airstrip, including within the LSA just west of the airstrip and along the Wheeler River at the southeast end of the LSA. ECCC notes that information is not yet available on the timing and frequency of air traffic.</p> <p>The Proponent has provided some potential measures likely to be incorporated into operations of the airstrip. The Proponent states that they will use the most direct path, however, important areas for caribou (e.g. calving grounds) may be located along the most direct route. Figure 2.4 of Appendix 9-F, shows that there is suitable calving habitat in close proximity to the airstrip, including within the LSA just west of the airstrip and along the Wheeler River at the southeast end of the LSA.</p>	ECCC advises that mitigation and monitoring should be developed to address sensory impacts as a result of the airstrip. The Caribou Management Framework should incorporate consideration of the proximity of air traffic to important landscape features for caribou, as well as timing of flights during important life stages (e.g. calving).	See response to IR-149-R1B (Round 3) and commitment 9-36 (in Denison's Commitments Register, version 3). Additional detail will also be documented as the EMS documentation evolves.
AD-84	ECCC	Section 9.3.6.4.1 Section 9.3.7.3.1	The Proponent notes that the size of the SK1 Boreal Shield range is estimated at 18,034,870 ha (ECCC 2020), resulting in an estimated additional Project-related disturbance of 0.001% at the scale of the SK1 Boreal Shield Woodland Caribou Management Unit. The Proponent concludes that the contribution of the Project to cumulative effects on woodland caribou within the SK1 conservation unit are negligible.	Although the Proponent has provided information to show that the Project has negligible impacts at range scale, this Project poses a medium risk to caribou at the local and regional scale due to the proximity of important features for caribou within the LSA and RSA. Mitigations for sensory disturbance during critical life stages such as calving should be developed and included within the Caribou Management Framework. Measures to monitor the effectiveness of implementation are also needed.	<p>We note ECCC's advice comment speaks to the project posing a "medium risk" to caribou at the local and regional scale; importantly, we note that Denison's EIS has concluded there are no significant effects on caribou per the assessment approach framework (refer to Section 5 of the EIS for the approach and methodology of the assessment).</p> <p>Please also see response to IR-149-R1B (Round 3).</p>
AD-85	ECCC	Section 9.3.5.2 Appendix 9-E Wheeler River Project Caribou Management Framework	<p>Much of the information presented in the Wheeler River Project Caribou Management Framework is qualitative in nature and does not present specific details regarding a quantitative assessment of impacts following measures to avoid, minimize, restore on-site and determine the offset. This is required in order to understand if offsetting is sufficient to address impacts to caribou.</p> <p>The updated Wheeler River Project Caribou Management Framework indicates that the Proponent will use the SK ENV caribou offset calculator. Without information on the amount of offsetting that will be implemented, ECCC cannot advise on whether the amount is appropriate in the context of the species Recovery Strategy.</p> <p>Although the Proponent has provided an updated draft Caribou Management Framework, information regarding offsetting remains outstanding. The Proponent notes that SK ENV is developing a boreal caribou habitat offset calculator and that the Caribou Management Framework will be finalized using that tool as part of the provincial approvals.</p>	<p>Information is still lacking on the amount of habitat offset required to balance against Project effects. Therefore, the Caribou Management Framework should be updated with outstanding information.</p> <p>The Proponent should consider offsetting effects associated with this Project. However, ECCC is unable to specify an offsetting amount at this time as there was insufficient information provided by the Proponent. ECCC acknowledges that the Proponent has committed to working on their offset plan with the province of Saskatchewan. However, offsetting measures, outputs, and priority locations should be confirmed in draft plans and submitted for review. Without additional information on the Proponent's mitigation measures, including offsetting measures, ECCC cannot provide advice on whether project effects will be mitigated.</p>	<p>Denison's EIS has concluded there are no significant effects on caribou; this conclusion is not reliant on habitat offsetting as a mitigation measure. Denison has provided the appropriate level of information for the purposes of EA review and has committed to offsetting with SK ENV (see commitment 9-35 in Denison's Commitments Register, version 2).</p> <p>Please also see Denison's response to IR-149 (Round 3) and IR-157 (Round 3).</p>

Federal Indigenous Review Team (FIRT) – Advice to the Proponent for the Wheeler River Environmental Impact Statement (EIS) November 2023

** The new [newest Advice to Proponent table](#) is available above

Ref. #	Department	Reference to EIS, appendices, or supporting documentation ²	Context and Rationale	Advice to the Proponent	Denison's Response
AD-50	ECCC	Section 2.2.1.4.2, Wellfield Operation Section 2.2.1.4.2.2, Secondary Containment of Mining Solution – Pumping	Providing a report or memo by the Proponent's consultant Newmans Geotechnique Inc. as a public record will more effectively explain the "information on the freeze wall integrity and basis for the design, which relies on site field data and lived experience from several exiting [sic] Saskatchewan mining operations", than a summary (attachment IR-10) of the material presented by Greg Newman during the meeting with the FIRT on April 19, 2023.	The response from the Proponent in IR-10 is accepted based on the meeting between ECCC, Denison and the CNSC, as well as the Proponent's consultant and the presentation by Greg Newman (Newmans Geotechnique Inc.) as well as the summary of the meeting noted in attachment IR-10. However, the Proponent should provide a public record of the consultant's memo or a report that explains the details of the freeze wall containment and monitoring that were provided during the April 19, 2023 meeting instead of the summary provided by the Proponent in attachment IR-10.	The April 19, 2023, presentation from Newmans Geotechnique Inc. to the CNSC is provided here as Attachment AD-50.
AD-51	CNSC	Section 8.3.3 and 8.5, Aquatic Environment and Fish health	Denison has committed to additional baseline data gather as part of their response to IR-107.	Also related to IR-120 and IR-125, CNSC staff recommend Russell Lake be included in this baseline collection to increase the robustness of the established baseline in the final EIS.	Acknowledged. Denison will consider this request as it develops the plans for additional baseline collections, as well as the monitoring program design documentation for aquatic environment monitoring that is planned to be part of the licensing submission. It is noted that no aquatic environment effects are predicted to accrue in Russell Lake in relation to any phase of the Project and the concentrations of all water quality constituents are predicted to remain below aquatic protection values.
AD-52	CNSC	Section 8.3.3.1, Methodology and Metrics	Denison has indicated that exposure to other pre-existing stressors could result in abnormal conditions or deformation(s) in existing population, but the extent of existing conditions should be evaluated to ascertain whether the rate is increasing as a result of proposed activities once in operation.	Related to IR-121, CNSC staff recommend that Denison add text to EIS to reflect that no gross abnormalities in fish were observed during field work.	The text of revised Draft EIS Section 8.3.3.2 has been revised as recommended to indicate that that no gross abnormalities in fish were observed during baseline field work.
AD-53	CNSC	Section 8.3.8, Monitoring and Follow-up	Section 8.3.8 of the EIS states: "Changes in fish communities/populations will be assessed through comparison of Construction, Operation, and Decommissioning results to pre-development." Tracking changes in fish communities / populations in reference lakes over time should be conducted, as reference lakes can be used to differentiate natural temporal variation with potential project impacts. Denison has committed to inclusion of reference lakes in study designs used to assess changes in fish communities / populations over time.	Related to IR-122, CNSC staff recommend that Denison strengthen discussion of reference lakes, and their use, in EIS.	Additional text (see below) has added to the fifth paragraph of Section 8.3.8 of the revised Draft EIS regarding aquatic environment monitoring program sampling areas and "reference lakes" more specifically, as follows. "Changes in fish communities/populations will be assessed through comparison of Construction, Operation, and Decommissioning results to pre-development conditions, as well as through contemporaneous comparison of "exposure area" versus "reference area" data. In this context an "exposure area" is an area downstream of potential mine influence and a "reference area" is an area outside of potential mine influence. Where possible, the reference area would be located in the same drainage, upstream of mine influence where conditions closely mimic those downstream

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					as is possible and where there is no, or reduced likelihood that exposure and reference fish populations can co-mingle.”
AD-54	CNSC	Section 9 Various pages in section 11.1, Land and Indigenous Resource Use Section 12 Section 14	The increased road traffic (14-18 trucks per day during construction/operations) may have indirect impact on ungulates, furbearers and wood land caribou presence/absence for traditional and subsistence hunting have been raised to CNSC staff when meeting with Indigenous Nations and communities and are presented in the EIS.	Related to IR-128, Denison should have follow-up discussions with the Ministry of Saskatchewan Highways, Indigenous Nations and communities (including KML and ERFN) and stakeholders regarding adding additional pull-outs to the highway to ensure safety for northern residents.	Acknowledged. We note that the Ministry of Highways and Infrastructure is responsible for construction and maintenance of highways in the province and Denison has no power or authority to construct pull-outs. However, Denison is committed to ongoing engagement throughout the life of the project and can provide input to Ministry of Highways and Infrastructure as applicable.
AD-55	ECCC	Section 9.2.5.2.7, Waste and Hazardous Materials Management	Vehicles and equipment with engines adhering to Tier 4 emission standards should be employed where feasible in order to minimize emissions. Regardless of engine tier used, best management practices should be followed, including proper maintenance of engines and anti-idling measures.	Related to IR-139, the Proponent should commit to following best management practices regarding the use of vehicles and equipment, including proper maintenance of engines and anti-idling measures.	Section 2.8 of the EIS and the commitment register included with this submission outlines Denison's plan to regularly maintain and inspect equipment and machinery to make sure they are in good working order.
AD-56	ECCC	Section 9.3.1.3.1, Spatial Boundaries for Ungulates, Furbearers and Woodland Caribou	The EIS and the IR response did not provide sufficient information to understand how the Regional Study Area (RSA) boundaries for caribou were determined.	<p>Related to IR-137, An assessment typically involves setting a geographic area for the assessment for the direct and indirect effects of a proposed project; this area is sometimes referred to as the Local Study Area (LSA). ECCC advises that the LSA is likely to extend beyond the Project footprint and a 500m buffer. ECCC demonstrated that the application of a 500m buffer to mapped anthropogenic features best represents the combined effects of increased predation and avoidance on caribou population trends at the national scale (Environment Canada, 2011). However, adverse effects of projects including predator and prey access to undisturbed areas, reduction in connectivity, and sensory disturbance to individuals of boreal caribou can vary and extend several kilometers depending on project activities and ecological context. The LSA should at the minimum capture the above-mentioned effects.</p> <p>A Proponent will also set a geographic area for the assessment within which the cumulative effects of the proposed Project are possible; this is sometimes referred to as the RSA. Typically the range(s) is(are) the proper scale to assess cumulative effects. However, assessing cumulative effects may require a different approach for large continuous ranges than for smaller discrete ranges. The impact of disturbance that may be concentrated in part of a large continuous range may be masked given the size of the range. For large continuous range it may be relevant to assess cumulative effects at the scale of the range but also at a smaller scale.</p> <p>The Proponent should consult with experts of the relevant jurisdiction in order to determine the local and regional study area, and provide a justification of the extent of the study areas in the impact statement.</p>	<p>The reviewer is also referred to the response to IR-137 and the response to AD-56 should be read in conjunction with it. The following is provided for reference.</p> <p>As per accepted environmental assessment methodology, the spatial boundaries were established to capture the extent of the expected/likely adverse effects, both direct and indirect, on the various valued components, that were expected as a result of the Project.</p> <p>The Project Footprint was delineated as the maximum extent of physical, direct disturbance resulting from the Project.</p> <p>The LSA was delineated to capture the extent of all direct, and most indirect effects of the Project on the wildlife VCs, including woodland caribou.</p> <p>The RSA was delineated to capture the extent of all likely Project effects, in consideration of the life-requisites and behavior of the various VCs being assessed (i.e., a habitat-based assessment) including ungulates (e.g., woodland caribou) which are known to have large home ranges. The RSA was also delineated in the context of the cumulative effects assessment, as it related to the region. Further the RSA is considered representative, as it includes habitat (ecosite types) that are found throughout the SK1 range. In particular, based on the habitat and its potential to support woodland caribou (as classified by the Saskatchewan Ministry of Environment) within the RSA is relatively consistent with the remainder of the habitat in the SK1 range (see Figure 2.1 in Appendix 9-F of the revised draft EIS).</p>

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					<p>These study areas are appropriate, in that they capture the extent of the likely adverse effects of the Project on the VCs, to provide an ecologically relevant determination as to the likely adverse effect on the regional population of all assessed VCs, including woodland caribou (i.e., no dilution of the effects over the entire SK1 range – although this has been provided for context).</p> <p>The 500 m buffer around a physical disturbance was considered in the context of the extent of sensory disturbance, to allow Denison to determine the geographical extent of an effect (i.e., limited to the LSA, limited to the RSA) to allow the appropriate characterization of the effect to inform the determination of significance.</p> <p>Cumulative effects occur when the adverse effects of the Project, overlap in time and space, with the adverse effects from other projects and activities. As such, the RSA is the appropriate scale to appropriately conduct a defensible cumulative effects assessment – i.e., the effects of projects that are beyond the RSA spatial extent would not likely result in residual effects that could act cumulatively with the Project’s effects, and consideration of effects that do not overlap spatially or temporally, are not cumulative, by definition.</p> <p>The Project is likely to add another 0.4% of anthropogenic disturbance (considering the Project Area of 169.6 ha) resulting in up to 1.9% of total anthropogenic disturbance in the Terrestrial RSA. As such, the Project’s contribution to the cumulative effect is 0.001% of additional disturbance in the SK1 range, which is below the accepted threshold level of anthropogenic disturbance based on the SK1 range plan (ECCC 2020). The Ministry of Environment has indicated that the current level of anthropogenic disturbance is 53% within the SK1 range, which is below the accepted threshold level of 55% for anthropogenic disturbance for the SK1 range.</p>
AD-57	ECCC	Section 9.4.5.2.1 Work Timing Windows and Habitat Disturbance	<p>In their response to IR-167, the Proponent states: “Site clearing and other works that involve disturbance of vegetation and/or soil will be completed during least-risk timing windows for migratory birds and SAR (i.e., winter), where practical, to avoid disturbance during sensitive time periods. It is noted that additional information related to timing windows and species as it concerns Project activities has been provided in response to IR-134.</p> <p>Pre-clearing surveys will be conducted and set-back buffers implemented, as needed. The pre-clearance surveys will be completed prior to all clearing events, regardless of the time of year / season when clearing is set to occur. If nests or tree cavities should be encountered during pre-construction surveys or ongoing</p>	Related to IR-167, provide details on how vegetation clearing related to site development will be conducted to avoid harm to migratory birds and species at risk (SAR).	<p>The reviewer is also referred to the response to IR-167 and the response to AD-57 should be read in conjunction with it. The following is provided for reference.</p> <p>As noted in the August 2023 IR responses, site clearing and other works that involve disturbance of vegetation and/or soil will be completed during least-risk timing windows for migratory birds and SAR (i.e., winter), where practical, to avoid disturbance during sensitive time periods.</p> <p>However, in the event that site clearing activities or other works are anticipated to occur during a sensitive timing window for migratory birds and SAR, the pre-disturbance wildlife sweeps would be conducted by qualified biologists at least 7 days prior to any</p>

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			<p>monitoring activities, any subsequent Project activities will be in accordance with the 2022 Migratory Birds Regulations.”</p> <p>ECCC does not recommend the use of nest searches or pre-clearing surveys for active bird nests during the breeding season as a mitigation. Instead, ECCC recommends that clearing and grubbing activities not be conducted during the breeding bird season.</p> <p>ECCC does not recommend active nest searches in most cases and for most species, in part because there is a great degree of difficulty associated with reliably detecting nests and a high likelihood of disturbing or damaging active nests while searching.</p> <p>Exceptions to the general nesting period exist, and these include interannual variation and nest searches for certain species which may breed outside of these general periods. Under the MBCA it is prohibited to destroy a nest with a live bird or viable egg, even if this occurs outside of what might be considered a normal nesting period.</p>		<p>scheduled vegetation/land disturbance. The biologist would search the proposed area to be cleared, plus a 100 m buffer, for sensitive wildlife features that may be used by avian SAR (e.g., nests and/or nesting cavities), woodland caribou, and bats (e.g., roosting sites/cavities). The wildlife sweeps will not be species-specific surveys focused on species at risk per se but will be based on timing of Project related activities (i.e., will be completed in advance of site clearing activities). These surveys are intended to identify sensitive wildlife features such as hibernacula, dens, nests, cavities, mineral licks, that would require specific mitigation measures to avoid or minimize adverse effects on identified features and are not species-specific. Nevertheless, the methods associated with these pre-construction and pre-clearing sweeps will be tailored to species at risk that may potentially be using habitats at certain times of the year. For example, methods will include searching prominent topographic features such as rock outcropping or downed forest trees and debris where wolverine may establish denning sites. In the event the sweeps are conducted during the winter period, methods related to snow tracking would identify wolverine presence based on tracks and potential denning sites in the snowpack within ravines or drainages within the forested areas within the study areas (as per Resources Inventory Committee 1999). Additionally, methods will include searching for potential roost trees for bat species, as per protocols included in the Wildlife Habitat Features Field Guide (BC Ministry of Environment and Climate Change Strategy, Ecosystems Branch 2019). Depending on the results of these sweeps, appropriate mitigation measures will be developed and implemented.</p> <p>If sensitive wildlife features are found, they will be documented (e.g., photographs, GPS location recorded). The data collected would inform the development and implementation of appropriate mitigation measures (e.g., appropriate set-back distances for Project activities and/or consideration of timing windows as per SK MOE (2017), in consideration of applicable laws and regulations (e.g., Migratory Birds Conservation Act, Wildlife Act), as appropriate.</p> <p>References:</p> <p>B.C. Ministry of Environment and Climate Change Strategy Ecosystems Branch. 2019. Wildlife Habitat Features Field Guide (Kootenay Boundary Region). October 2019. Pp. 119</p> <p>Resources Inventory Committee. 1999. Inventory Methods for Medium-Sized Territorial Carnivores: Coyote, Red Fox, Lynx, Bobcat, Wolverine, Fisher and Badger. Standards for Components of BC’s Biodiversity No. 25. Ministry of Environment, Lands and Parks.</p>

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					Saskatchewan Ministry of Environment (SK MOE). 2017. Saskatchewan Activity Restriction Guidelines for Sensitive Species. https://publications.saskatchewan.ca/api/v1/products/79242/formats/89555/download (accessed July 2021).
AD-58	HC	Section 10.1.4.2.1 (p. 10-22) Appendix 10-A (ERA): Appendix B Table B.9, Ref. 19-2638 Section 6, Table 6.1-1 (p. 6-7)	Section 6 of the Draft EIS contains Table 6.1-1 (p. 6-7), which lists radionuclides as a key indicator for air quality. Only uranium and radon are considered in Section 6, and Section 10 Table B.9 does not include doses from uranium progeny in air.	Related to IR-177, consider rewording Table 6.1-1 to “radon” instead of “radionuclides” to avoid confusion.	Acknowledged. The revision to Table 6.1-1 has been made as suggested.
AD-59	CNSC	Section 10.1.6.1.1, Human Receptors Selection and Characterization	Within the Human Health assessment, offsite receptors during the operation period are only considered downstream of Whitefish Lake. The only identified concern was for Se to the Fisher/Trapper located at Russel Lake. This section cites Indigenous Knowledge as informing the receptor selection and location. While the assessment is fairly conservative in the assumptions made on intake and receptor habits, it stands to reason that if the trapper receptor was located closer to the operation, such as at McGowan or Whitefish Lakes, this exceedance of Se could be more pronounced. In terms of maintaining a conservative assessment, if the most vulnerable receptor can be shown to be protected at the point of highest expected COPC concentration, it can be concluded that this receptor would be protected further away from the project. Considering this, why was the hunter/trapper receptor not also assessed at Whitefish or McGowan Lake? Was Indigenous Knowledge specific in mentioning Whitefish or McGowan Lakes were not used for the activities carried out by identified receptors?	Denison has addressed IR-180, but has not considered the suggestion for establishment of additional treatment technologies of COPCs. CNSC staff maintains that there may be the need to establish additional treatment for effluent should environmental monitoring during operation indicate COPC's are accumulating in the environment beyond what is anticipated in the EIS. This is a firm reminder that this will be evaluated as part of the licensing phase of the project, should it proceed.	Acknowledged; it is understood that consideration of treatment technologies will be part of the licensing phase of the Project.
AD-60	CNSC	Section 11, Perceived Risks to Lands and Resources	The EIS states: “Resource users may also experience changes in their perception of the quality of resources for consumption such as the palatability of fish or wildlife or have apprehensions about the safety of resources for consumption. These changes may affect the patterns of ILRU during all Project phases including Post Decommissioning. The ERFN refer to this indicator as a “psycho-social’ effect, meaning that even if people know their fears are “perceived fears, the fear ... is real and has real impacts on ERFN members’ perception of their overall health and well-being” (ERFN and SVS 2022a).” (p. 11-11)	Related to IR-207, as Denison continues to work with Indigenous Communities of Interest on community specific monitoring regimes, please provide additional information in the IER on any updates on engagement activities to date that have taken place with KML and ERFN and any other Indigenous Nations and communities who utilize the area, with respect to follow-up monitoring plans that are being developed to support the Project licensing and permitting. If Denison has made commitments with respect to this, this is information that should also be included in the commitments report.	Denison continues to work with its Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a community specific monitoring regime, suited to each of their interests and needs, in an agreed-upon fashion. Updated information regarding engagement activities is provided in the updated IER and updated commitments register included with the IR response package.

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			CNSC's Generic Guidelines for the Preparation of an EIS state: "The EIS will document specific suggestions raised by Indigenous groups for mitigating the effects of changes to the environment on Indigenous peoples (section 5(1)(c) of CEEA 2012). For the mitigation measures intended to address the effects of changes to the environment for Indigenous peoples, the Proponent must discuss the residual effects with the Indigenous groups prior to submitting the EIS." These changes may affect the patterns of ILRU during all Project phases including Post Decommissioning.		
AD-61	CNSC	Various sections of the EIS, including: Section 9 Section 10 Section 11, including Section 11.1.4.3.1 (p. 11-46) Section 12 Section 16	ERFN indicated they are concerned about declining moose populations from an influx of hunters; more people may be accessing the area year after year, and worried populations may be affected by the Project (21-EN-ERFN-473.13). Further, the EIS highlights that: "Vehicle collisions are the most likely source of direct mortality for moose. Effective mitigation measures (e.g., breaks in snowbanks; speed limits; and exclusion fencing around contaminated waste pads and ponds) will be implemented to reduce moose mortality." (p. 11-46) To address potential concerns specific to Project related effects to wildlife species of interest to the Indigenous Communities of Interest, Denison has committed to collaborating with ERFN and KML on a monitoring regime suited to each of their interests and needs.	Related to IR-129, Denison needs to ensure that the proposed monitoring regime with ERFN, KML and other Indigenous Nations who utilize the area are included in the commitments table for future EIS submissions.	Denison continues to work with its Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a community specific monitoring regime, suited to each of their interests and needs, in an agreed-upon fashion. Updated information regarding engagement activities is provided in the updated IER and updated commitments register included with the IR response package.
AD-62	CNSC	Various sections of the EIS, including: Section 8 Section 9 Section 10 Section 11 Section 12 Section 15 Section 16 Appendix 16-C (p. 3)	IR-238 requested that Denison provide additional information to demonstrate whether Indigenous Nations and communities were engaged directly on the potential mitigation and monitoring measures to address the concerns raised regarding potential impacts of the Project on the potential or established Indigenous and/or treaty rights. As well, it requested that Denison provide a rationale if this engagement has not been completed. As the Project develops, please provide concrete actions Denison will take in the follow-up and monitoring programs to engage Indigenous Peoples to alleviate concerns and incorporate their interests, and when this engagement is planned to take place.	Related to IR-238, If Denison has made commitments with respect to engagement activities with Indigenous Nations and communities on potential , this is information that should be included in the commitments report.	Please see response to IR-238 and as noted previously Denison continues to work with its Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a community specific monitoring regime, suited to each of their interests and needs, in an agreed-upon fashion. Updated information regarding engagement activities is provided in the updated IER and updated commitments register included with the IR response package.
AD-63	ECCC	Appendix 6-C Climate Baseline and GHG Emissions Report	ECCC recommended that the identification of the sources of GHG emissions and quantification of these emissions be described for the post-decommissioning phase, as was done for the other phases. ECCC recommended that the Proponent discuss the potential impacts that the Project may have on Canada's ability to meet its climate-related targets, following the guidance of the Strategic Assessment of Climate Change (SACC) and the Draft Technical Guide Related to the Strategic Assessment of Climate	Related to AD-18 , ECCC recommends the identification of the sources of GHG emissions and quantification of these emissions be described for the post decommissioning phase. This information will be useful for future development of a net-zero plan.	The Post-Decommissioning phase consists of physical, chemical, and biological monitoring of the site that will be conducted to confirm that the site is chemically and physically stable. Post-Decommissioning extends from the end of physical decommissioning until transfer of the site into the provincial Institutional Control Program or direct release of the land back to the Crown. The Post-Decommissioning monitoring program will be

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			Change: Guidance on quantification of net GHG emissions, impact on carbon sinks, mitigation measures, net-zero plan and upstream GHG assessment.		<p>designed and conducted in accordance with the provincial and federal regulations and licence conditions.</p> <p>For the purpose of the environmental assessment and the stage at which Project development currently stands, Denison believes the information provided on GHG emissions within the EIS documentation is appropriately focused on the Project phases with greatest activity which contribute to Scope 1 and 2 emissions.</p> <p>As noted previously in response to AD-18, in accordance with our discussions with the CNSC, Denison is committed to re-assessing the GHG and climate change components of the EIS and other elements of the SACC once more detailed, site-specific data become available (i.e., detailed feasibility and engineering studies). This is expected to include more detailed study around overall GHG emissions, carbon sinks and mitigation options, best available technologies / best environmental practices, climate resiliency, net-zero carbon planning and offsetting.</p>
AD-64	ECCC	Appendix 6-C Climate Baseline and Greenhouse Gas Emissions Report	<p>ECCC noted that more specific data, such as regional data from provinces, forest companies, or literature may be available. The use of Table 20 of the draft Technical Guide does not apply.</p> <p>ECCC recommended that the Proponent also consider biomass that are not aboveground and confirm whether soil carbon is taken into account, as well as wetlands.</p> <p>ECCC recommended that the Proponent provide a quantitative and qualitative description of the Project's impact on carbon sinks, following the guidance of the SACC and the draft Technical Guide.</p>	<p>Related to AD-19, ECCC recommends that the Proponent revisit the land use calculation provided in the draft Environmental Impact Statement as the use of Table 20 of the draft Technical Guide for the above ground mass of vegetation species is not appropriate. This table is for above-ground woody vegetation in cropland systems which does not apply in this instance. A simple site survey would determine above-ground biomass on site using basic information such as site class and species. More specific data, such as regional data from provinces, forest companies, or literature may be available, while generic national data is available (e.g., Biomass Estimates for Major Boreal Forest Species in West-Central Canada (publications.gc.ca), Canada's Forest Biomass Resources: Deriving Estimates from Canada's Forest Inventory (nrcan.gc.ca)).</p> <p>ECCC reiterates the advice that the Proponent provide information regarding the consideration of biomass that are not above ground, specifically whether soil carbon and wetlands are taken into account.</p> <p>ECCC also restates the advice that the Proponent provide a quantitative and qualitative description of the Project's impact on carbon sinks, following the guidance of the SACC and the draft Technical Guide.</p>	<p>It is anticipated the GHG and climate change components of the Project will be re-evaluated once more detailed, site-specific data becomes available; this will be done after the EIS process is concluded and possibly as part of sustainability reporting. This analysis is expected to include more detailed study around overall GHG emissions (including land use changes - forest/vegetative biomass, soil carbon, wetlands), carbon sinks and mitigation options, best available technologies / best environmental practices, climate resiliency, net-zero carbon planning and offsetting.</p>
AD-65	CSNC	Appendix 7-A, Section 4.3.3, Hydrochemistry by Hydrostratigraphic Unit	In response to IR-82, Denison highlights the importance of the S redox couple (S(2-)/S(6+)) near the ore zone.	Related to IR-82, CNSC staff recommend that Denison consider the inclusion of hydrogen sulfide test kits for in-field measurements of H ₂ S to supplement qualitative interpretations (e.g., absence of "rotten egg" odor associated with sulfide) relating to redox conditions.	Acknowledged and Denison thanks CNSC staff for this recommendation. The recommendation will be considered within the context indicated during future planning.

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		Appendix 7-C, Section 3.5			
AD-66	ECCC	Appendix 7-C, Numerical Modelling: Post Decommissioning Evaluation, Section 2.3.1.4, Desilicified Zone	<p>The Proponent states in both the EIS and their response that a hydraulic conductivity value of 5×10^{-6} m/s was uniformly assigned to the model layers representing the Desilicified Zone. They additionally state that this value is consistent with packer and pumping tests screened in this unit that have interpreted hydraulic conductivity values ranging from 1×10^{-6} to 3×10^{-5} m/s (Appendix C), with a geomean of 6.0×10^{-6} m/s.</p> <p>In their IR response, the Proponent stated that the hydraulic conductivity used as the model base case (5×10^{-6} m/s) is similar enough to the geometric mean value (6×10^{-6} m/s) that no consequential change to the model would occur if the geometric mean were to be used. The use of the value of 5×10^{-6} m/s as the model base case was not substantiated.</p> <p>ECCC accepts the response to Part 1 of the IR as the Proponent has stated that 5×10^{-6} m/s and 6×10^{-6} m/s are similar enough hydraulic conductivities that redoing modelling with the geometric mean is not expected to consequentially change outputs for either the PHREEQC or FEFLOW model. However, the reasoning for selecting the value of 5×10^{-6} m/s was not clear.</p>	<p>Related to IR-89, while repeat modelling using the geometric mean hydraulic conductivity of 6×10^{-6} m/s is not required, include a statement in the EIS to indicate that the geometric mean hydraulic conductivity was not used in the model and providing justification for using the value of 5×10^{-6} m/s instead.</p>	<p>The revised Draft EIS text (Appendix 7-C, Section 2.3.1.4 has been updated to report the geomean of the desilicified zone will be updated to 4.8×10^{-6} m/s. The previously reported value of 6×10^{-6} m/s was erroneous.</p> <p>"A hydraulic conductivity value of 5×10^{-6} m/s was uniformly assigned to the model layers representing the Desilicified Zone. This value is consistent with packer and pumping tests screened in this unit that have interpreted hydraulic conductivity values ranging from 1×10^{-6} to 2×10^{-5} m/s, with a geomean of 4.8×10^{-6} m/s. As within other units, the geomean value was not applied directly, but rather a rounded value slightly higher than the geomean was applied throughout the entire desilicified zone. The value applied within the desilicified zone is considered conservative as it is a factor of 1.9 higher than the most-reliable hydraulic conductivity estimates (i.e., values obtained through pumping tests measured the conductivity as 2.7×10^{-6} m/s) and is equivalent to the geomean value."</p>
AD-67	Health Canada (HC)	Appendix 10-A, Section 3.2.1.3.1, p.3.43-3.44	<p>Inappropriate use of an outdated standard in assessing health and environmental effect(s) from short-term exposure to nitrogen dioxide (NO₂).</p> <p>The Draft EIS technical supporting document (Appendix 10-A) appears to misinterpret Health Canada's 2016 Human Health Risk Assessment for Ambient Nitrogen Dioxide (NO₂) in setting its screening criteria and evaluating the health impacts from exposure to Nitrogen Dioxide. The document states:</p> <p><i>"Health Canada published a national one-hour maximum acceptable level of $400 \mu\text{g}/\text{m}^3$ for NO₂ in ambient air using a risk assessment approach (Health Canada, 2016b). This value considers sensitive human populations."</i></p> <p>This statement is inaccurate.</p> <p>As indicated in Health Canada's 2016 publication, this value ($400 \mu\text{g}/\text{m}^3$) refers to the National Ambient Air Quality Objective (NAAQO) for NO₂, developed in the 1970s. The Canadian Ambient Air Quality Standards (CAAQS) were later developed in consideration of both human health and the environment to replace existing Canada-wide standards, including the NAAQOs, and in many cases are the most stringent Canadian air quality standard, guideline or objective.</p>	<p>The CAAQS are recommended as the most stringent air quality standard for assessing health and environmental effect(s) from short-term exposure to NO₂ in the project.</p> <p>The CAAQS are generally calculated for specific multi-year averages and for a particular statistical form so that extreme and unpredictable events do not drive risk management. However, if the data is not available for comparison to a full CAAQS timeframe, Health Canada suggests using model results for at least one calendar year to allow for a basic comparison with the CAAQS statistical form. The modelling results should be able to indicate the frequency of CAAQS exceedances, which can be used in the discussion as to whether any anticipated human health impacts are anticipated</p> <p>Modelled predictions within an air quality assessment's study area should be compared to the most stringent air quality standards, guidelines or objectives applicable to the region that may be affected by project activities. In this case, CAAQS are the most stringent levels and CAAQS are not restricted to applications only within the context of the Air Quality Management System (AQMS). Evaluation against the CAAQS may be considered in determining the nature and severity of the project's impact on air quality levels and the resulting mitigation measures that may be required to maintain good air quality levels or to prevent an exceedance of the CAAQS.</p>	<p>Acknowledged. The reviewer is referred to the response to IR-190 for a discussion of the use / interpretation of the CAAQs in the EIS.</p>

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			<p>The new CAAQS for NO2 also recognizes that there is no population health threshold for human health effects; therefore, any increase in exposure will result in an incremental population risk (Environment Canada and Health Canada, 2012; CCME, 2000). In other words, NO2 is considered to be a non-threshold substances, meaning that health effects may occur at any level of exposure. Therefore, guideline values should not be construed as limits to which polluting up to is allowed.</p>	<p>As health effects can occur even at levels of exposure below the limits set out in the CAAQS, they should not be viewed as “pollute-up-to” levels. It should be acknowledgeable that health risks exist below the guidelines. In addition, the principles of keeping clean areas clean and continuous improvement are operative, thus proposed mitigation measures should not be confined to meeting the standards, but should also be targeted towards reducing population exposure to CACs associated with the proposed project.</p> <p>This advice is also relevant to IR-190 and may be of use in responding to that request for a comparison of the predicted maximum concentrations to the most protective applicable air quality standards available (i.e., CAAQS).</p>	
AD-68	ECCC	<p>Appendix 16-A Summary of Residual Effects Appendix 16-B Summary of Cumulative Effects</p>	<p>ECCC recommended the inclusion of an assessment of potential GHG mitigation measures throughout all phases of the Project including a Best Available Technologies / Best Environmental Practices (BAT/BEP) Determination, as described in Section 3.2 of the draft Technical Guide.</p> <p>ECCC also recommended the development of a credible Net-Zero Plan on how to achieve the target of 0 kt CO2 eq/year, for the year 2050 and beyond, following the guidance of the SACC and the draft Technical Guide.</p>	<p>Related to AD-49, ECCC notes the comment provided by the Proponent stating, “Denison will consider the option of preparing a climate resiliency assessment with consideration to best available technologies / environmental practices (BAT/BEP) as well as a net-zero plan as the Project advances”. ECCC continues to recommend that the Proponent align with best practices by including in the EIS a Best Available Technologies / Best Environmental Practices (BAT/BEP) Determination and a credible Net-Zero Plan on how to achieve the target of 0 kt CO2 eq/year, for the year 2050 and beyond, following the guidance of the SACC and the draft Technical Guide.</p>	<p>The information presented in the Draft EIS meets the requirements of CEAA 2012. Per Denison’s response to AD-49 (Annex 1, page 419/419) the company will consider the option of preparing a climate resiliency assessment with consideration to best available technologies / environmental practices (BAT/BEP) as well as a net-zero plan as the Project advances but is not intending to include this information in the revised Draft or Final EIS.</p>
AD-69	CNSC	Appendix 16-C	<p>The EIS and the Summary of Monitoring and Follow-up Programs provided in Appendix 16-C contains very high-level information. It is not clear which monitoring programs will be employed to demonstrate regulatory compliance, and compliance with the commitments Denison has made to its Indigenous and non-Indigenous Stakeholders.</p> <p>The CNSC’s Generic Guidelines for the Preparation of an Environmental Impact Statement (EIS), also state: “The EIS will then describe mitigation measures that are specific to each environmental effect identified. Measures will be written as specific commitments that clearly describe how the proponent intends to implement them and the environmental outcome the mitigation is designed to address.</p> <p>CNSC staff requested in the March 2023 letter to Denison (e-Doc 6991467) a Commitments Table for the Wheeler River EIS. This letter requested information of all commitments made by Denison with detailed information such as:</p> <ul style="list-style-type: none"> ✓ details of the commitment ✗ which phase(s) of the project will the commitment be carried out (e.g., all phases) ✓ where the commitment is referenced (which document, table, etc. and where it can be found) 	<p>For the next draft EIS submission, the evergreen Commitments Table should be updated to include:</p> <ul style="list-style-type: none"> • which phase(s) of the project will the commitment be carried out (e.g., all phases) • how this commitment will be tracked (project EA follow-up program, site-wide programs, etc.) and; • all commitments to Indigenous Nations and communities 	<p>Please refer to the commitments register included with Denison’s IR response package.</p>

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			<p>✘ how this commitment will be tracked (project EA follow-up program, site-wide programs, etc.)</p> <p>Several commitments to Indigenous Nations and communities from the August 2023 submission appear to be missing from this table and should be included in the next submission.</p>		
AD-70	ECCC	Appendix 16-C Summary of Monitoring & Follow-up Programs	ECCC recommended that the Proponent consider developing a GHG follow-up program to measure and compare actual GHG emissions against the EIS estimates, including reporting the Project's actual emissions and updating the emissions estimates as needed.	Related to AD-48 , ECCC acknowledges that the Project will likely be required to report annually per section 46 of the Canadian Environmental Protection Act as the annual emissions are likely to be over 10,000 tonnes of CO ₂ e. However, ECCC's suggestion incorporates additional components to align with the goal outlined in Appendix 16-C of the draft EIS to "assess the environmental performance of the project relative to the predictive assessment that has been completed in support of the environmental assessment process". This would involve comparing actual vs. estimated emissions following the terms of the SACC's net GHG emissions equation and evaluating the effectiveness of GHG-related mitigation measures.	Greenhouse gas emissions (GHGs) were not included as a valued component in the EIS, and as such, Denison is not proposing to add GHG monitoring to the EA follow-up monitoring to remain consistent with the methodology and scope for an EA completed under CEAA 2012. The annual GHG reporting will provide the required and relevant information to regulators per the Canadian Environmental Protection Act. Denison's ESG reporting framework will be developed as the Project advances and will be scoped beyond the components of the EIS.
AD-71	ECCC	Conceptual Caribou Management Plan	Section 4.2.1 of the Conceptual Caribou Management Plan states that "The Project components are also west of the known home range of woodland caribou (based on tracking data received by the Ministry of Environment; Figure 4-2), although the absence of data does not mean the absence of caribou and Denison has observed caribou in the area." Calculation of home range is normally based on statistical analyses of telemetry data. Home range cannot be inferred from telemetry points and incidental observations from a map	Related to IR-149, the Conceptual Caribou Management Plan should be corrected to remove the reference to caribou home range.	<p>Acknowledged - Version 2 of the Caribou Mitigation Plan (now titled Caribou Management Framework) has been updated to re-word the sentence highlighted by ECCC.</p> <p>For reference and further information, it is noted that Denison continues to work collaboratively with Saskatchewan Ministry of Environment (MOE) on their requirement for an offset for adverse effects on caribou habitat. Denison has advanced the Project-related Caribou Management Framework within the context of the province's offsetting framework. The MOE has reviewed the draft framework and has provided Denison a notification of their support. Subject to finalization and provincial acceptance, the framework will provide the means to address/offset all residual adverse effects (i.e., those remaining after the application of the proposed mitigation measures) of the Project on caribou that are under provincial jurisdiction.</p>

Federal Indigenous Review Team (FIRT) – Advice to the Proponent for the Wheeler River Environmental Impact Statement (EIS) March 2023

** The new [newest Advice to Proponent table](#) is available above

Ref. #	Department	Reference to EIS, appendices, or supporting documentation ³	Context and Rationale	Advice to the Proponent	Denison Response
AD-01	Canadian Nuclear Safety Commission (CNSC)	Glossary sections	<p>There are terms used throughout the EIS that may either need defining, or inclusion in the glossary.</p> <ul style="list-style-type: none"> • “Bounding”, “bounding case” and “bound” are used frequently throughout the EIS to describe the scope of the assessment. For example, p. 2-6 the EIS States: “Denison has bound the environmental assessment above the deposit...” • “Laydown”. P. 2-54 states: “During Construction, Denison plans to create a laydown area next to the future domestic landfill to temporarily store construction waste. Examples of materials include clean wood, plastics, metal, and concrete. The construction laydown area will not be lined, but it will have a berm surrounding the area to minimize run-on and runoff.” • “Deflagration” (p. 2-22) • “Speed of sound” The EIS states: “Deflagration means the material burns slower than the speed of sound, thus no shock waves are generated. Propellant permeability enhancement methods reach injection pressures of up to 8,000 psi and are near instantaneous over periods of milli seconds...” (p. 2-22) - Explain briefly what is meant by “speed of sound” • “Dries” (p. 2-65): “the main dries will be located in the processing plant” • “Scarified” 2-84 Laydown areas will be scarified, covered with 0.5 to 1.0 m of stockpiled overburden, and vegetated with native, self-sustaining species. • “Furblock” (p. 4-29) • “Cutlines” (p. 4-101) 	Add this terminology to either one of the early glossaries, or when describing the methodology, in order to help readers understand these terms (particularly non-technical readers, such as Indigenous peoples and members of the public).	Thank you for the advice comment. This will be addressed once the EIS is updated following the conclusion of the information requirement (IR) process.
AD-02	CNSC	General	<p>Mining solution and lixiviant are used interchangeably throughout the EIS. When both are used periodically, may be difficult for a member of the public to recognize that these are one in the same (mining fluid seems more often used).</p>	Be consistent in how this is referred to, in order to ensure it’s clear to readers that these are one and the same.	Thank you for the advice comment. This will be addressed once the EIS is updated following the conclusion of the information requirement (IR) process.
AD-03	CNSC	Throughout the Executive Summary (ES) and draft EIS	<p>Errors in formatting and grammar were identified throughout ES and EIS. Some examples are underlined below:</p> <ul style="list-style-type: none"> • “often referred to as “the final uranium product <u>yellowcake</u>” (ES, p.16) • “Whitefish <u>Lake,;</u>” (ES, p.47) 	Please correct these and any other formatting, spelling or grammatical errors.	Thank you for the advice comment. This will be addressed once the EIS is updated following the conclusion of the information requirement (IR) process.

³ Unless otherwise stated, the section noted refers to the draft EIS

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			<ul style="list-style-type: none"> • “Forest fires are common throughout most of northern Saskatchewan, however, and are an important natural disturbance of northern boreal forest ecosystems” (p.72) • “Other comments that the process reminded them of fracking, which carried a negative connotation...” incomplete sentence (EIS, p. 2-3) • “.During this phase, water taking will mainly be used by the processing plant and wellfield remediation and to support the potable water plant and wash bay.” (EIS, p. 8-29) • “In McGowan Lake, meanmercury concentrations in Northern Pike” (EIS, p. 8-224) • “Flows and water levels in lakes and rivers within the LSA will realize some adverse change (reduction) as a result of overprinting drainage areas reporting specifically to Whitefish Lake and water taking from this same waterbody.” (8-38) • “Residual effects characteristics specific to Fish Health are defined in Table 8.5-6 with evaluation of residual effects provided in ” (EIS, p. 8-242) • “Potential Project residual effects on the Fish Health VC are primarily related to c the controlled” (EIS, p. 8-249) • “...resulting in a moderate level of uncertainty.” (EIS, p. 9-47) • “...the assessment. Error! Reference source not found. Provides a summary of unique identification numbers referenced within Section 10.1.” (10-10) • “Kineepik Métis Local #9 have also note how the Project...” (EIS, p. 11-57) • “But do not compose the same volume of consumption” (EIS, p. 11-56) – should this be comprise? • “ Phoenix Infrastructure. In total, approximately 284 ha” (EIS, p. 11-156) <p>Please note, this list is not exhaustive.</p>		
AD-04	CNSC	Section 2.2.1 Mining (p. 2-4 to 2-5)	An arial view could be useful to help a reader understand the proposed freeze wall earlier in section 2 (e.g., The shape, whether it surrounds the deposit). This is unclear but there are good images further down in the EIS (i.e., Figure 2.3-1 on p. 2-78).	Consider adding image to Section 2.2.1, similar to or containing aspects of Figure 2.3-1.	Thank you for the advice comment. This will be addressed once the EIS is updated following the conclusion of the information requirement (IR) process.
AD-05	Transport Canada (TC)	Sections 2.2.3.2, 2.2.3.10, 2.2.5.1, 2.3.1.6, 8.3.4.2.2, 11.1.4.4.2,	The two water crossings over Kratchkowsky Creek and Hart Creek and the water intake and effluent discharge/intake pipeline and diffuser at Whitefish Lake may be subject to the <i>Canadian Navigable Waters Act</i> (CNWA). However, these works may be exempt from the CNWA, if they meet the requirements of the Minor Works Order.	*This advice pertains to the regulatory phase.* It is recommended that the Proponent self-assess each work using TC’s Project Review Tool as follows: https://npp-submissions-demandes-ppn.tc.canada.ca/proiectreview-outildexamenduproiet	Acknowledged and Denison will address this in the regulatory phase as highlighted.

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				<p>If the works do not fit the Minor Works Order, the Proponent has the option to either submit an application for approval to the NPP, or use the public resolution process, as these are all unscheduled waterways. The full text of the Minor Works Order is available here: https://laws-lois.justice.gc.ca/eng/regulations/SOR-2021-170/page-1.html.</p> <p>Background information on the NPP, the Minor Works Order, the application for approval process and the public resolution process are available here: https://tc.canada.ca/en/programs/navigation-protection-program/apply-npp</p>	
AD-06	Environment and Climate Change Canada (ECCC)	Section 2.2.3.8, Project Description	<p>In this section it is stated that: “The third step of the Industrial Wastewater Treatment Plant (IWWTP) is anticipated to further neutralize and improve the remaining water quality proposed to be achieved with further pH adjustments through agitated tanks and a clarifier with negligible solids generation expected at this stage. Several additional technologies including ion exchange are being evaluated as part of an ongoing Best Available Technology Study to be complete as part of future permitting.” ECCC would be interested in reviewing this study when it becomes available.</p> <p>Considering that the third step of the effluent treatment process in the IWWTP is still undergoing development, ECCC cannot make final conclusions regarding the efficacy of the treatment process. When final treatment technologies have been evaluated and selected, ECCC would like to review this information to allow for release to the environment.</p>	ECCC requests the opportunity to review the Best Available Technology Study and selected treatment technologies for the IWWTP when the report becomes available.	The BATEA information for the IWWTP will be included in Denison’s application to the CNSC for a license to operate. As such, ECCC can direct their review request for review to the CNSC.
AD-07	TC	Section 2.2.5.3	<p>With respect to the proposed airstrip, under the <i>Aeronautics Act</i>, the proposed airstrip would be considered an “aerodrome”, which is defined as:</p> <p>“aerodrome means any area of land, water (including the frozen surface thereof) or other supporting surface used, designed, prepared, equipped or set apart for use either in whole or in part for the arrival, departure, movement or servicing of aircraft and includes any buildings, installations and equipment situated thereon or associated therewith.”</p> <p>Aerodromes, including the one proposed by Denison, are subject to the <i>Aeronautics Act</i> and the Canadian Aviation Regulations (CARs).</p>	<p>*This advice pertains to the regulatory phase.*</p> <p>The proponent must notify the Minister of Transport of the proposed airstrip (aerodrome). This notification, being a summary report to the Minister of Transport, is required by section 307 of the CARs (CARs 307). CARs 307 also requires Denison to undertake consultation in the prescribed manner before it constructs the proposed aerodrome at the mine site. Details of the consultation are to be included in the above-mentioned summary report to the Minister of Transport.</p> <p>CARs 307 identifies the requirement to consult to include anyone seeking to undertake a prescribed aerodrome work at a certified or non-certified aerodrome, whether it is the creation of a new aerodrome or, at an existing aerodrome, lengthening an existing runway or making a new one. The Regulation also provides minimum expectations for how the consultation should be conducted, including timelines, who to notify and under what circumstances. The intent of the Regulation is to compel</p>	Acknowledged and Denison will address this in the regulatory phase as highlighted.

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				<p>consultation in advance of an aerodrome work that will result in sustained and regular impact on interested parties as identified in the Regulation.</p> <p>As the proposed aerodrome will not be within 4 kilometres of a city or built-up area, under CARs 307, the proponent is required to consult the following interested parties:</p> <ul style="list-style-type: none"> (i) the Minister of Transport, (ii) the providers of air navigation services, (iii) the operator of a certified or registered aerodrome located within a radius of 30 nautical miles from the location of the proposed aerodrome work, (iv) the authority responsible for a protected area located within a radius of 4 000 m from the location of the proposed aerodrome work, (v) any local land use authority where the proposed aerodrome work is to be carried out, and (vi) the owner of any land bordering the land on which the proposed aerodrome work is to be carried out. <p>Proponents are encouraged to share their plans with the local land use authority before the consultation period. The local land use authority may have information about other nearby projects or developments that could impact on the proponent's plans.</p> <p>In summary, regarding the airstrip (aerodrome), the proponent must complete the consultation and file the summary report with the Minister of Transport, prior to commencing construction of the aerodrome.</p> <p>Further details can be found at: https://laws-lois.justice.gc.ca/eng/regulations/SOR-96-433/FullText.html#s-307.01.</p> <p>TC recommends that the proponent contact TC's Aerodromes Group at CASPNR-SACRPN@tc.gc.ca before starting the consultation, to ensure it is completed in accordance with CARs 307.</p>	
AD-08	CNSC	Figs. 3.4-1, 4.3. 1, and where applicable throughout the EIS	Some maps in the EIS do not contain highway numbers.	Please consider including the highway numbers on the maps early in the Draft EIS when laying out the project location so the reader can become familiar with road network within northern Saskatchewan when discussions take place.	Thank you for the advice comment. This will be addressed once the EIS is updated following the conclusion of the information requirement (IR) process.
AD-09	CNSC	Section 4, including Figures 4.3.1 and/or 4.3.2 and where	The maps included in the EIS in sections do not have any Treaty boundaries. First Nation Treaties should be included on the map. Not all First Nations reserves, and boundaries are included on the map such as Cree Lake and Slush Lake, please include on map and consider adding others from the NAD.	It is recommended that Denison update the maps in these sections to include Treaty Boundaries and community locations are included on the Project location map in Figure 4.3.2 and other maps throughout the entire EIS where applicable.	Thank you for the advice comment. This will be addressed, as possible, once the EIS is updated following the conclusion of the information requirement (IR) process.

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		applicable throughout the EIS.			
AD-10	CNSC	Section 4	Overall, CNSC believes that Denison is abiding by the communications strategies and products identified in their PIDP, but would be interested in additional information that is available.	While CNSC staff are satisfied that the proponent meets the requirements with this EIS, further clarity and detail on the strategic planning behind these communications activities would be beneficial and would further support the overall goals of the Project's engagement activities.	Acknowledged. Further details on the Public Information Program and Public Disclosure will form part of the documentation submitted in support of the CNSC licensing for the Project.
AD-11	CNSC	Section 4 Indigenous Engagement Report (IER)	There is a summary of what engagement activities will occur moving forward. However, it is not clear which engagement activities/meetings will occur during the different stages of the EA/ project life cycle. Please provide additional details upon submission of the Final EIS.	Denison should consider clarifying in the updated IER which engagement activities will occur during each stage of the project moving forward as per Reg Doc 3.2.2 before submitting the Final EIS.	The engagement activities as outlined in the draft EIS are reflective of the iterative nature of engagement with respect to the Project. At the time of the filing of the final EIS, Denison will describe the status of engagement and future expected engagement activities to occur, which will continue to be aligned with the requirements of Reg Doc 3.2.2.
AD-12	CNSC	Section 4 IER	Information included in the EIS Section 4 and IER regarding engagement activities, communication and issues and concerns raised will need to be updated when the next version of the EIS is submitted. The EIS and IER will need to be updated to include information from Fall of 2022 until approximately two months prior to the submission date of the next EIS.	When re-submitting the EIS, ensure that the engagement log, issues and concerns tables and information about engagement activities done to date have been updated. No action needed only advice to update this section before submission with most up to date engagement activities including any that take place with other Indigenous Nations and communities not included in the Draft EIS.	Acknowledged.
AD-13	CNSC	Section 4 IER	Denison states that validation of VC selection was completed with ERFN, the Northern Village of Beauval, the Northern Village of Pinehouse Lake, and the Northern Hamlet of Patuanak (hereafter Beauval, Pinehouse, and Hamlet of Patuanak, respectively). The EIS states that this was completed through a shared online survey. The EIS also indicates that YNLR was also included in this process.	How has Denison validated VC selection with the other Indigenous Nations and communities that have showed interest and if so, by what methods (survey's, engagement, meetings, review of Draft sections etc.?) Did Indigenous Nations and communities select any VC's that were not included in the EIS and if so why not? Please elaborate and provide more details in the EIS on any other methods used including engagement sessions that were completed with Indigenous Nations and communities, through in-person community workshops, VC selection approval through early review of Draft EIS sections.	Section 4 of the draft EIS describes the approach taken related to the Indigenous and non-Indigenous Communities of Interest in relation to the Wheeler River Project. Denison has engaged with these entities regarding the validation of the VC selection. Denison has not undertaken VC validation activities with other Indigenous Nations or communities that have shown interest in the Project, owing to the systematic approach to engagement Denison has been following. This approach is consistent with the methodology presented to the CNSC by Denison in early 2020, for which confirmation was received in mid-2020 and reflected in the draft EIS. All activities undertaken in relation to engagement on VCs are currently described in the EIS; there are no additional details to add. Denison can confirm that it is unaware of additional or new VCs brought forward by other Indigenous Nations or communities that are not suitably captured within the current draft EA approach.
AD-14	CNSC	Section 4.3.1, Pg 246	On this page, Denison states that MN-S is "currently structured with a President, an Executive, a Provincial Metis Council, Regional Presidents, and Local Presidents. The wording of 'Regional	Please update all wording of "Regional President" to "Regional Director" when referring to MN-S.	Thank you for the advice comment. This will be corrected in the final EIS.

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			<p>President’ is incorrect and should be changed to say, ‘Regional Director’.</p>		
AD-15	ECCC	<p>Sections 5.3.4 (Table 5.3-3); 8.1.3.3 Climate Change; 8.1.3.4 Climate Change Influenced Extreme Events; Table 15.4-1: Summary of Potential Effects of Short-term Extreme Weather Events on the Project and Associated Mitigation; Section 15.5 Climate Change.</p>	<p>The Proponent indicates that the Project’s full lifetime is roughly 40 years (including the post-decommissioning phase) and that climate conditions are important design considerations for a number of sensitive aspects of the Project. Potential future climate changes and their potential effects on the Project and Valued Components (VCs) are described in various sections of the draft EIS. Notably, in Section 15.5.2, ensemble mean projections are provided for several climate variables for two future time periods and emissions scenarios (RCP 4.5 and 8.5). In Section 8.1.3.4, the Proponent describes possible future changes in short-duration precipitation extremes (based on Intensity Duration Frequency or IDF curves from the IDF_CC tool) and indicates that an increase in their frequency and magnitude may occur over the Project lifetime “... and may require consideration for greater storage and conveyance capacity for Project water management infrastructure” (p.8-41).</p> <p>The Proponent indicates that aspects of the Project are being designed to meet standards based on design values that appear to be derived from observed (i.e. historical) climate conditions (e.g. water management infrastructure; see Table 15.4-1). In Section 15.5.3, they indicate that an adaptive management approach will be used to address some aspects of future climate change as necessary. For example, page 15-19 of the draft EIS states that: “Denison will develop an Emergency Preparedness and Response Program for the Project to address forest fires and extreme weather that may occur. If unforeseen effects on the Project occur from longer and more severe forest fire seasons associated with climate change, or increased frequency or severity of extreme weather (e.g., ice storms, snowstorms, flooding), Denison will apply adaptive management that includes monitoring climate factors so that they can proactively mitigate or prevent adverse climate effects on the Project.” (Emphasis added).</p>	<p>ECCC recommends that when considering potential future climate change and relevant effects on the Project, the Proponent consider the range of variability from the ensemble of models (not just the ensemble mean). ECCC also recommends that the Proponent consult the 2019 Canadian Standards Association Guidance on Intensity Duration Frequency for Canadian Water Resources practitioners , which provides examples of alternative methodologies to estimate future return values for design as needed.</p> <p>In terms of adaptive management, ECCC recommends that the Proponent clearly outline what climate factors will be monitored to mitigate or prevent adverse climate-related effects. This should include information on when and how the climate factors would be monitored and under what circumstances particular adaptive management approaches would be applied.</p>	<p>Please see response to IR-15, IR-103, IR-104, IR-235, and IR-236.</p> <p>The probable maximum precipitation (PMP) value of 493 mm selected for design of water management infrastructure, such as ponds, is similar to total annual precipitation (456 mm from Key Lake station, and 483 mm from 1981-2020 climate normals).</p> <p>The selected PMP is well above (>5 times higher): 1) current/measured 24-hour maximum precipitation, 2) modelled 1 in 100 year 24-hour return for current conditions, 3) modelled 1:100 year 24 hour return for a future (2020-2050) period, 4) the predicted maximum 1-day precipitation under different emissions scenarios for the future (including RCP8.5 in the 2021-2050 period).</p> <p>For comparison to the design PMP of 493 mm:</p> <ul style="list-style-type: none"> - the measured maximum 24-hour precipitation from Key Lake station was 42.9 mm and 72 mm from 1981-2020 climate normals. - the modelled existing/current 1 in 100 year, 24 hour return using the IDF_CC Tool for the Wheeler River Project site was 79.9 mm and at the Key Lake area was 56.4 mm. - the modelled future (2020-2050) climate 1 in 100 year, 24 hour return using the IDF_CC Tool for the Wheeler River Project site was 88.6 mm and at the Key Lake area was 62.0 mm. - the predicted future climate (2021-2050) under the highest CO2e emissions scenario (RCP 8.5) shows maximum 1-day precipitation of 25.9 mm. <p>The PMP is much higher (> 5 times higher) than the observed and predicted 24-hour maximum precipitation and the 1:100 year 24 hour return. Completing the design using a large PMP provides confidence that the water management infrastructure will be sufficient and function under future climates as it relates to potential changes in precipitation.</p>
AD-16	CNSC	<p>Section 5.10 (p.70) and throughout the EIS</p>	<p>In section 5.10 of the ES, where the seven scenarios are listed, formatting is inconsistent. Likelihood is in quotes in some places, but not in all.</p> <p>Not significant is bolded inconsistently throughout the EIS.</p> <p>As well, in many cases noted as “not significant”, where others note “are not expected to have a significant effect”.</p>	<p>Suggest making formatting consistent if going to use quotes and bolding to highlight sections of the text.</p> <p>Also, validate that use of “not significant” and “are not expected to have a significant effect” are consistently used (where appropriate).</p>	<p>Thank you for the advice comment. This will be addressed, as possible, once the EIS is updated following the conclusion of the information requirement (IR) process.</p>

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AD-17	ECCC	Appendix 6-A Air Quality Technical Supporting Document A.10	Some of the off-road vehicles have an emission rating of Tier 2 but in Appendix 6-A Section A.10 the Proponent claims that “for non-road diesel combustion, Tier 4 emission factors were assumed”. Choosing an engine with a lower Tier will increase emissions in NOx significantly and the Proponent should be using the best available technologies to minimize environmental impacts.	ECCC recommends that the Proponent choose engines that meet the most stringent emission standards to the extent possible, which are Tier 4 for the compression-ignition engines, during all phases of the Project.	Please see response to IR-139.
AD-18	ECCC	Appendix 6-C, Climate Baseline and GHG Emissions Report	<p>Understanding Project emissions is important to inform analysis of a Project’s potential impact on Canada’s emissions targets and climate change commitments.</p> <p>ECCC notes that Section 4.0 and Appendix C: Greenhouse Gas Emissions Calculations of Appendix 6-C identifies the source of emissions and quantifies them in the construction, operation, and decommissioning phases of the Project, in accordance with the Draft Technical Guide Related to the SACC (Draft Technical Guide). While ECCC recognizes that the emissions will be relatively small in the post-decommissioning phase, the identification and quantification of the emissions in this phase is not found in the draft Environmental Impact Statement (EIS). The post- decommissioning phase is expected to last 15 years, likely going past 2050.</p> <p>The draft EIS does not discuss emission intensities of the Project, only the grid electricity. The draft EIS also does not discuss the Project’s potential impacts on Canada’s climate targets.</p>	<p>ECCC recommends that the identification of the sources of Greenhouse Gas (GHG) emissions and quantification of these emissions be described for the post-decommissioning phase, as done for the other phases.</p> <p>ECCC recommends the Proponent include discussion on the emission intensities of the mining of the product, following the guidance of the SACC and the Draft Technical Guide.</p> <p>ECCC recommends that the Proponent discuss the potential impacts that the Project may have on Canada’s ability to meet its climate-related targets, following the guidance of the SACC and the Draft Technical Guide.</p>	<p>The Post-Decommissioning phase only includes monitoring (physical, chemical, and biological) and regulatory site inspections. These activities are not expected to generate any significant GHG releases. Notwithstanding, the calculated GHG emissions estimates for Construction, Operation and Decommissioning are expected to be sufficiently conservative to capture any incidental GHG releases during monitoring and inspection activities.</p> <p>The EIS anticipated an annual average production rate of approximately 4,082 metric tonnes of U₃O₈ and an annual net GHG releases of 30,702 metric tonnes CO₂e over the operations phase of the project. The annualized GHG intensity during operations is estimated at 7.5 tonnes of CO₂e / tonnes of U₃O₈.</p> <p>Section 2.5 of the EIS provides a summary of the anticipated GHG releases and a comparison to the nation- and province-wide GHG emissions. The project is expected to contribute less than 0.0043% to the nation-wide annual average. Given this very low contribution, the project is not expected to impact Canada’s ability to meet its climate-related objectives and targets.</p> <p>Also see response for AD-19 (second paragraph).</p>
AD-19	ECCC	Appendix 6-C, Climate Baseline and GHG Emissions Report	<p>The draft EIS lacks information related to estimates of impact on carbon sinks and emissions from land-use changes. As land use shifts from a vegetated site prior to development, to an industrialized site, removal of vegetation and peat will have impacts on carbon sinks and construction emissions.</p> <p>Section 6, Appendix 6-C, 4.1.2 Land Use Change states that site-specific information of above-ground mass of vegetation was not available and default data from Table 20 of the Draft Technical Guide were applied. The default data is contained in this table is not applicable in this case, as they represent aboveground woody vegetation in cropland systems.</p> <p>ECCC recognizes that the usage of the median value of 0.51 for the carbon content is reasonable.</p> <p>From the information given in the draft EIS, it does not seem that the soil carbon was taken into account. In the absence of detailed information, the Proponent assumed that the area cleared would also be excavated (and drained in the case of wetland areas) which</p>	<p>Land Use Change Regarding the lack of site-specific information of above-ground mass of vegetation, an initial site survey on-site using basic information such as site class and species would assist in determining the above-ground biomass. More specific data, such as regional data from provinces, forest companies, or literature may be available, and generic national data is available (e.g., Fo148-1-2E.pdf (publications.gc.ca), 4775.pdf (nrcan.gc.ca)).</p> <p>ECCC recommends that the Proponent also consider biomass that are not aboveground and confirm whether soil carbon is taken into account, as well as wetlands.</p> <p>Carbon Sinks ECCC recommends that the Proponent provide a quantitative and qualitative description of the Project’s impact on carbon sinks, following the guidance of the SACC and the Draft Technical Guide.</p>	<p>Limited site-specific data were available to characterize land use change and impacts on carbon sinks. As such, the use of default values from the SACC/IPCC in conjunction with some limited habitat/vegetation data (extracted from Chapter 9.2 Terrestrial Environment – Vegetation and Ecosystems, Listed Plant Species and Wetlands) was employed and is considered reasonable at this stage of the assessment. Please note that additional information on the land use change GHG calculations can be found in Appendix 6-C Climate Baseline and Greenhouse Gas Emissions Report.</p> <p>In accordance with our discussions with the CNSC, Denison is committed to re-assessing the GHG and climate change components of the EIS and other elements of the SACC once more detailed, site-specific data becomes available (i.e., detailed feasibility and engineering studies). This is expected to include more detailed study around overall GHG emissions, carbon sinks and mitigation options, best available technologies / best environmental practices, climate resiliency, net-zero carbon planning and offsetting.</p>

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			would create significant additional emissions from soil disturbances and drainage. Section 4.1.2 also states the Project involves clearing an area of approximately 169.6 hectares. There are no estimates on the impact on carbon sinks related to the Project.		
AD-20	NRCan	Section 7.3.1, Physical Geography	Drumlins and eskers in the region trend Northeast to Southwest as opposed to northwest to southeast as written on page 7, line 18. Correct orientations are used on page 7, line 23.	NRCan recommends revising the text. Please refer to 250 000 scale Surficial Geology Lines from Quaternary mapping, CSRS NAD83 Zone 13, Saskatchewan Geological Survey 2017.	Acknowledged. The typo in the draft EIS, Section 7.3.1 will be corrected in the final EIS. In Section 7.3.1. the text will be updated to say the following: “The most important associated topographic features in the region are the northeast to southwest trending drumlins and eskers...” See also response to IR-54.
AD-21	NRCan	Section 7.3.2.3, Metacrystalline Basement Rock	Pegmatite missing from list of basement rock types.	NRCan suggests addition of pegmatite to the list of basement rock types as shown on Figure 7.3-6.	Denison will update the final EIS per NRCan’s suggestion.
AD-22	NRCan	Section 7.3.3.1, Aquifer Properties, Section 7.3.2.3, Metacrystalline Basement Rock, Appendix 7A, 2.0, 2.3.1, 2.3.2	The terms “metacrystalline” and “metagranitic gneiss” are not frequently used terms in scientific literature. Gneiss is, by definition, a metamorphic rock.	NRCan suggests revision to “Crystalline Basement rocks” or “Basement metamorphic rocks”, and “granitic gneiss” as used in Figure 7.3-6. Please refer to Oxford Dictionary of Earth Sciences.	Denison will update the final EIS per NRCan’s suggestion.
AD-23	NRCan	Appendix 7A, 2.3.1, Metacrystalline basement rock	Orogeny is the process, orogen (or orogenic belt) is the feature produced by orogeny.	NRCan suggests replacing “Tran Hudson Orogeny” with Trans Hudson Orogen”.	Denison will update the final EIS per NRCan’s suggestion.
AD-24	NRCan	Appendix 7A, 2.3.1, Metacrystalline basement rock	Quartzite is by definition a metamorphic rock, and the term is used later without the meta-prefix.	NRCan suggests replacement of the term “meta-quartzite” with “quartzite”.	Denison will update the final EIS per NRCan’s suggestion.
AD-25	NRCan	Appendix 7A, 2.3.4, Athabasca Group Sandstones and Conglomerates	Sands are unlithified, whereas you are referring to grain sizes in this case.	In Table 2-1, NRCan suggests replacing the term “sands” with “grain sizes” under MFc and MFb descriptions.	Denison will update the final EIS per NRCan’s suggestion.
AD-26	NRCan	Appendix 7A, 2.3.5, Overburden	Typo on page 2, line 7: “A grain size sample was collected in GWR-033 from approximately 9 m below ground surface, and the same consisted of 8.8% clay (less than 4 µm).	NRCan suggests revision of “same” to “sample” and clay to “clay-sized” grains.	Denison will update the final EIS per NRCan’s suggestion.
AD-27	CNSC	Section 8.2.1.3 – Spatial and Temporal Boundaries	It is noted that McGowan Lake is an identified reference lake for the Key Lake Mill site. With the establishment of the Wheeler River mine, effluent would be flowing into McGowan Lake, which could potentially interfere with Key Lake’s environmental monitoring program by compromising McGowan Lake’s baseline conditions.	The CNSC advises Denison to communicate with Cameco to ensure they are aware of this situation. Coordination between the two companies may be necessary to ensure Key Lakes environmental monitoring program is not compromised. It is recommended to	Denison will communicate with Cameco through the Saskatchewan Mining Association to highlight the timing of the start of the Project as it may relate to Cameco’s use of regional lakes for reference lake purposes. McGowan Lake will no longer be suitable as a reference lake for Cameco once the Wheeler River Project starts operating,

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			Depending on the loading of COPC's into McGowan Lake and resultant water concentrations, it may no longer be accepted as an acceptable reference lake for use by Key Lake. This would require Cameco to modify their monitoring program at the Key Lake Mill.	discuss this potential issue with Cameco ahead of time to determine the best path forward.	since it will be downstream of treated effluent release. Alpha Lake (LA-9 in Denison's aquatic baseline studies) will likely be outside of any influence from Denison's activities. Please note that Denison has previously been in communication with the Saskatchewan Ministry of Environment, Environmental Protection Branch regarding the baseline study work Denison completed as part of the Environmental Assessment process and the potential changes to McGowan lake (a Cameco's reference lake) from the proposed Wheeler Project. Reference: Email from Janna Switzer (Denison) to George Bihun (MOE) on May 12, 2020.
AD-28	ECCC	Section 8.2.4.2.3 Appendix 10-A, Section 3.1.1.2	Tables 8.2-9 and 8.2-10 in Section 8.2.4.2.3 Part II_S8 Aquatic Environment and Table 3-1 in Appendix 10-A Section 3.1.1.2 demonstrate predicted maximum effluent concentrations of Constituents of Potential Concern (COPCs) and maximum predicted receiving environment concentrations. The final effluent quality discharge target for uranium is 0.057 mg/L. However, the Canadian Council of Ministers of the Environment (CCME) water short-term (acute) water quality guidelines for the protection of aquatic life is 0.033 mg/L. The proposed effluent discharge target for uranium exceeds the acute water quality guideline, indicating effluent may pose the risk of being acutely lethal to aquatic biota at end-of-pipe. While uranium is not a Schedule 4 substance with prescribed concentration limits under the Metal and Diamond Mining Effluent Regulations (MDMER), the MDMER requires the characterization of uranium concentrations in effluent under Schedule 5, and requires that all mine effluent released from final discharge points be non-acutely lethal. Under Schedule 5 Section 9(d) of the MDMER, the Proponent will likely be required to conduct selenium fish tissue sampling if average annual concentrations of selenium in effluent equals or exceeds 5 ug/L.	Discharges from the proposed Project will alter water quality in the immediate receiving area, and this may include some sublethal effects on aquatic biota, which must be minimized. It remains the Proponent's responsibility to adhere to the MDMER to ensure that effluent at the end-of-pipe from all final discharge points be non-acutely lethal and meet requirements for prescribed deleterious substances under Schedule 4 of the regulations.	Denison fully understands its obligations with respect to the MDMER and will comply with the MDMER end of pipe effluent discharge criteria.
AD-29	CNSC	Section 8.3.3 Figures 8.3.5 etc. 8.5-4	It does not appear that aquatic baseline sampling maps for Russell Lake have LAB 1 and 2 locations showing the baseline sampling locations within Russell Lake. (Figures 8.3.5). Please update the Figures throughout aquatic environment section to include of the baseline sampling studies/ locations within Russell Lake.	Please update maps and sections in EIS to reflect aquatic baseline studies that were completed.	Thank you for the advice comment. This will be addressed, as possible, once the EIS is updated following the conclusion of the information requirement (IR) process.
AD-30	CNSC	EIS sections 8.4.3.2.4 Benthic Invertebrate Community and 8.4.7.6 Climate Change Considerations	ECCC EEM guidance recommends the use of multiple reference areas as it offers the greatest statistical power to detect a meaningful difference between a reference area and an exposure area and can also give an indication of variability among reference areas. It is also important to incorporate multiple reference locations into the study design to aid in designing against spatial confounding factors.	Considering climate change may change the lake conditions from baseline conditions, and that there is already natural variability between lakes that will be used as reference lakes and exposure lakes, it could become difficult to show changes to sediment/benthic invertebrates are not due to project activities, therefore there is a recommendation to ensure the current baseline	Changes in landscape influence and lake conditions are not limited to those brought about by climate change. The preparation of a study design under the MDMER EEM program strives to ensure that a single reference area or multiple reference areas are as representative of a control condition as possible. Best practice is to undertake an analysis of candidate reference areas using the existing baseline information and investigate their utility as controls

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			<p>Section 3 of the Aquatic Environment Baseline Study Report details the similarities between benthic invertebrate communities by using the mean Bray-Curtis index between sampling locations and the median reference condition for the lake group size. It's not clear in the EIS if there are any issues expected to be able to use this data to compare project effect locations to references sites into the future, as some sampling locations are currently not very similar to the reference sites.</p> <p>In addition, climate change could affect the sediment and benthic communities in the future. The EIS states "the frequency and magnitude of extreme precipitation events have the potential to change water levels and flows in the RSA, which may affect sediment transport, deposition, and therefore benthic invertebrate habitat. Changes to average and upper and lower bounds of ambient temperatures may also affect aquatic habitat, which in turn may affect benthic invertebrate communities. Climate change over the life of the Project (i.e., 35 to 40 years) will be monitored as part of the Project's environmental monitoring programs, and influences on water quality, sediment quality, and benthic invertebrates will require adaptive management to mitigate any potential effects of the Project that may be exacerbated by climate-related changes on the aquatic environment". It is recommended to ensure that appropriate number/location of reference sites are sampled to enable any changes to sediment or benthic invertebrate communities that may be due to climate changes, and not project effects, are able to be assessed.</p>	<p>data is adequate, and to consider if additional data, and addition of additional reference stations, will be needed moving forward.</p>	<p>prior to project development. A preliminary EEM study can be completed that will allow for a Before-After-Control-Impact study design, that will provide the ability to monitor change not only in the exposure areas, but in the reference areas, thereby allowing for a reasonable assessment of potential mine related impacts.</p>
AD-31	CNSC	Section 8.4.6.1, Residual Effects Characterization	<p>The EIS states "Local Indigenous communities have expressed direct concern with respect to mercury. Mercury has not been identified as a COPC for the Project as it is currently not present in the receiving environment (i.e., background condition) at detectable concentrations and will not be produced as part of the mine process; therefore, it will not be discharged to the aquatic environment. However, it is understood that potential nutrient enrichment-related effects are possible and can be linked to increases in mercury in the environment." Based off concerns from Indigenous communities, and the fact that phosphate is a COPC in the effluent, and elevated concentrations of mercury were measured near the Kratchkowsky Lake bottom, adding methylmercury to the environment sampling plans may be beneficial.</p>	<p>Please consider adding methylmercury to the environment sampling plans (such as fish dorsal muscle) in order to confirm there are no unexpected effects of the project on levels, and to satisfy stakeholder concerns.</p>	<p>Refer to response to IR-100.</p>
AD-32	CNSC	Section 9.1.8.3, Appendix 10-A (ERA) section 3.2.1.5	<p>It appears there is no consistency between the assessment of soil quality in the ERA and the baseline soil sampling program presented in the EIS. The baseline program includes 10 soil permanent sampling locations (Appendix 9-B, section 2.5). Sampling at these</p>	<p>Please clarify how baseline measured data on COPC concentrations in soil is considered in the current and future iterations of the ERA.</p>	<p>Baseline measured soil data were used in the ERA to characterize the existing environment. The IMPACT model was used to predict the Project contributions for the Project phases above baseline.</p>

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			<p>locations is proposed to be continued during the Operation Phase, and monitoring data will be compiled and reported annually/periodically (EIS section 9.1.8.3).</p> <p>Conversely, the ERA estimates and predicts concentrations of COPC in soil based on atmospheric deposition. Furthermore, the location of ecological receptors in the ERA (Figure 5-2) is different from the permanent soil sampling plot locations (Appendix 9-B, Figure 2.5-1). It is unclear why measured baseline soil quality data were not discussed in the ERA and whether future monitoring data will be considered in the ERA to verify accuracy of predicted COPC concentrations</p>		<p>The baseline soil concentrations used in the model are provided in Section 3.5.1 and Table 3-8 of Appendix A in Appendix 10-A (ERA).</p> <p>The ERA will be revised according to the periodic review requirements in CSA N288.6-22 which will reflect ongoing data collected from monitoring programs.</p>
AD-33	CNSC	Section 9.3.3.1.2	<p>Indigenous knowledge is summarized with regard to moose, including:</p> <ul style="list-style-type: none"> • Calving sites close to the Wheeler River, with lots of muskeg in the area. A moose calving area is located in the Terrestrial RSA, southwest of the Project Area. • A wildlife corridor is used by moose, running between Cree Lake (outside and to the west of the Terrestrial RSA) and Russel Lake (in the southern portion of the Terrestrial RSA). <p>It is unclear how this information is incorporated into the residual effects assessment.</p>	Please clarify how Indigenous knowledge on moose calving sites and corridors in the RSA is incorporated into the residual effects assessment for the key indicator “moose”.	<p>The sites identified by IK were explicitly considered in the impact assessment as indicated by their identification as overlapping with the Terrestrial RSA as noted in the question. However, the areas were not expressly discussed in the residual effects assessment because there is no anticipated spatial overlap of those areas with direct or indirect Project effects.</p> <p>The Indigenous Knowledge provided by ERFN and SVS (2022) identifies a moose calving site (Feature 1001-08) ~ 2 km southwest, and a wildlife corridor ~6 km south of the Project Area (as depicted in Figure 4. Map B, page 16 of ERFN and SVS 2022). Both areas are within the Terrestrial RSA but outside the Wildlife LSA. The reference to “Calving sites close to the Wheeler River...” refers to a broad area that is 45 km east of the Project Area, well beyond interactions with the Project Area.</p> <p>The presence of the areas identified through IK was acknowledged in Section 9.3.3.1.2 (Information from Indigenous Knowledge, Local Knowledge, and Engagement) in Part II, Sec. 9 of the Draft EIS. The assessment (Sec. 9.3.4.2) considered alteration and/or habitat loss at the LSA and RSA scale. Section 9.3.4.2.1 (pg. 9-210) summarizes the effects on moose habitat as follows: “Habitat alteration through sensory disturbance effects (such as noise, dust deposition, and artificial light) is expected to result in reduced habitat quality and effectiveness near Project components and infrastructure reaching beyond the Project Area into the Wildlife LSA....”</p> <p>Further, Sec. 9.3.6.2.1 (Alteration and/or Loss of Habitat, pg. 9-230) identifies that an area within a 500 m radius of the Project Area will be influenced by the Project and likely make the habitat within that area less suitable for use by moose. Therefore, the effects of the Project on moose calving have been appropriately assessed and are expected to be contained within the Wildlife LSA. That affected area</p>

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					does not overlap with the moose calving site or the wildlife corridor identified by IK.
AD-34	CNSC	Appendix 9-B	<p>Baseline studies for birds are restricted to short time frames in one year only, for example:</p> <ul style="list-style-type: none"> Breeding Songbird Point Count Call Survey (June 7 and 17, 2017) Aerial Waterfowl and Raptor Stick Nest Survey (June 15 and 16, 2017) <p>The Canadian Wildlife Service (2022) recommends:</p> <ul style="list-style-type: none"> Consider the potential effects of projects on birds throughout the year and document the distribution and abundance of birds in all seasons. Some species may be under-represented in existing data bases due to temporally restricted periods of detectability. Explicitly target species at risk and other focal species. Conduct at least two years of field surveys as a national standard for major projects, so that temporal variability can be considered in future comparisons to baseline data. <p>Reference: Canadian Wildlife Service. 2022. Guidance Regarding Data Needed to Support Assessment of Project Effects on Birds. Environment and Climate Change Canada, Gatineau, Quebec. 80 p.</p>	Please consider conducting surveys following CWS's recommendations or provide an explanation as to how current baseline data for birds is sufficient to characterize the existing environment.	The data collected as part of the baseline studies for birds was focused on the habitat types and areas most likely to be disturbed as a result of the Project. Conducting additional baseline surveys for waterfowl, raptors, and breeding birds is not anticipated to result in changes to the assessment outcomes and predictions made as part of the effects assessment, which was habitat-based, for avian species. The assessment methods used a conservative approach with the assumption that following the implementation of site-specific mitigation measures, the proposed Project activities would have a residual effect on these species guilds regardless of species presence on site. However, to supplement the species data that were collected as part of the baseline field program, Denison is willing to acquire additional information on species presence in the RSA from existing sources, specifically from the Saskatchewan Breeding Bird Atlas (Birds Canada). However, collection and consideration of this information is not expected to affect the findings and/or conclusions stated in the draft EIS as the assessment was habitat-based to address all species.
AD-35	CNSC	Section 10, IMPACT MODEL	Denison discusses details of the IMPACT model but has not provided scenario(s) used to facilitate review.	Please consider providing CNSC with the IMPACT model scenario file(s) in the spirit of regulatory cooperation.	The intent of Appendix A to Appendix 10-A is to provide the inputs used for the IMPACT model as well as all of the characteristics for human and ecological receptors. Where site-specific data were not used in the model it can be assumed that default values from CSA N288.1-20 were used in the IMPACT model. As such, Denison does not intend to provide the scenario files.
AD-36	English River First Nation (ERFN)	Section 10.1.3.2, Traditional Foods Diet (p. 10-15)	<p>The EIS States: "The ERFN is comprised of seven reserve lands across Saskatchewan" (p. 10-15)</p> <p>While this is accurately reflecting a source document, the source document is incorrect.</p>	Please update to "The ERFN is comprised of seven historical settlements that have now grown into 19 different reserves across Saskatchewan"	Thank you for the advice comment. This will be addressed, as possible, once the EIS is updated following the conclusion of the information requirement (IR) process.
AD-37	CNSC	Section 10.1.9, Human Health Summary and Appendix 10-A – 4.4.1 Risk Estimation	The Human Health section of the EIS, as well as the ERA, indicates that there is an exceedance for selenium for the fisher/trapper receptor, with the Project estimated to contribute to the majority of this exceedance (0.93 of the HQ). While the assessment is conservative by assuming an increase intake rate of fish solely sourced from Russel Lake, the precautionary principle should be considered to ensure in reality the HQ for selenium remains below 1, even under conservative assumptions.	<p>Please conduct of effluent, water, and aquatic organism monitoring (as already suggested in EIS) to confirm HQ's are highly conservative in the EIS modelling and receptors remain protected.</p> <p>Should it be determined Se concentrations are increasing in the environment at such a rate as there may be in impact to the environment or human health, installation of a selenium removal circuit into the effluent treatment process should be considered. The proponent should ensure that the proposed wastewater treatment system design incorporates the capability for expansion</p>	Denison acknowledges that a robust effluent and environmental monitoring program will be developed to confirm all EIS modelling predictions. The ERA will be revised according to the periodic review requirements in CSA N288.6-22 which will reflect ongoing data collected from monitoring programs.

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				or upgrades in alignment with the precautionary approach, pollution prevention, and continuous improvement.	
AD-38	CNSC	Appendix 10-A (ERA)	<p>It is unclear if measured or modelled COPC concentrations in blueberry were used in the calculations of human receptor dose. Similarly, it is unclear if measured or modelled COPC concentrations in lichen and blueberry were used in the calculations of ecological receptor dose.</p> <p>CSA N288.6-22, Clause 7.3.6 states that “Measured concentrations of COPCs should be used, where possible, in the exposure assessment.” Please see the Clause for further information.</p>	Please clarify if measured or modelled COPC concentrations in blueberry / lichen were used in the calculations of human and ecological receptor dose.	<p>Measured baseline lichen data were used in the ERA to characterize the existing environment. The IMPACT model was used to predict the Project contributions for the Project phases above baseline. Measured baseline blueberry data were used for model calibration to determine if there was good agreement between measured data and modelled data. The IMPACT model was used to predict both baseline and Project contributions for blueberries. The ERA will be revised according to the periodic review requirements in CSA N288.6-22 which will reflect ongoing data collected from monitoring programs.</p>
AD-39	CNSC	Appendix 10-A (ERA), Table 2-2	<p>Table 2-2: Estimated Home Ranges of Selected Terrestrial Ecological Receptors</p> <p>Based on the reference McLoughlin et al. (2016), the Home Range for Woodland Caribou is indicated as “Expected = 80 km²” which represents the mean range sizes pooled over the two study years for calving/post-calving. The indicated Minimum (67 km²) and Maximum (267 km²), however, do not relate to the calving/post-calving stage, which is not clearly stated in Table 2-2. In contrast, these values are actually mean range size values for autumn/rut and early winter, respectively, as described in the source document on Page 83 (McLoughlin et al., 2016). It should be noted that in terms of true minimum and maximum, the source document states that individual home ranges, based on up to two years of GPS locations, varied in size from 16.2 km² to 1363.9 km² (Page 82 of McLoughlin et al., 2016).</p> <p>Reference: McLoughlin et al. 2016. Population dynamics and critical habitat of woodland caribou in the Saskatchewan Boreal Shield. Interim Project Report, 2013–2016. Department of Biology, University of Saskatchewan, Saskatoon. 162 pp. Available online at http://mcloughlinlab.ca/lab/wp-content/uploads/2019/06/2013-2016-SK-Boreal-Shield-Caribou-Project-Interim-Report-Nov-18-2016.pdf</p>	Please provide clear details on the source of the home range values listed in Table 2-2.	Denison acknowledges the comment and will add clarification in Table 2-2 of Appendix A in Appendix 10-A that the minimum represents the autumn/rut and the maximum represents the early winter.
AD-40	CNSC	Appendix 10-A (ERA) section 3.2.1.5	Although the soil type selected in the ERA for modeling of atmospheric deposition to soil is sandy soil, organic soils have been delineated and characterized (section 9.1.3.3 of the EIS) as valued component (i.e., “Organic Matter/Peat”). It is unclear if the soil quality modeling performed in the ERA is protective for soil types other than sandy soil.	Please clarify if COPC modeling based on sandy soil is protective of organic/peaty soil and provide justification.	The majority of the soil in the Project Area and LSA is considered sandy soil. Section 9.1.3.2 of the EIS states “Mineral soils are associated with upland sites and (in all likelihood) anthropogenically disturbed land that, together, correspond with >99% of the Project Area and 91.5% of the LSA (Figure 9.1-8). The predominate mineral soils within the RSA have been classified as Sandy Dystric Brunisols (Smith et al. 2011).” Organic matter/peat was included as a VC in the EIS because of the concern regarding drying and losing biological function through groundwater interactions, and not in

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					terms of assessment of soil quality. Additionally, Section 9.1.3.3 of the EIS acknowledges that organic soils is limited in the Project Area. As such, this comment is considered not applicable.
AD-41	CNSC	Appendix 10-A (ERA), Table 5-5	<p>Table 5-5: Complete Exposure Pathways for All Selected Ecological Receptors to be Assessed using the IMPACT Model</p> <p>The exposure pathway for phytoplankton is stated as “direct contact in sediment”, however, phytoplankton live suspended in the water column. It is acknowledged that in the IMPACT modelling report, phytoplankton is described with an occupancy factor of 1 in water (Table 2-5).</p>	Please add the pathway “direct contact in water” to Table 5-5 and revise all calculations accordingly.	Table 5-5 will be revised to state “direct contact in water” for phytoplankton. No calculation changes are needed.
AD-42	CNSC	Appendix 10-A (ERA), Table B.12	<p>Table B.12: Sample Calculation – Adult Recreational Fisher/Hunter (McGowan Lake) Dose and Risk Calculations for Selenium</p> <p>The source for the Terrestrial Plant Ingestion Dose for Labrador tea and blueberry is stated as “Table C.5”, however, this table could not be located.</p>	Please provide the referred-to Table C.5 or an alternate source of information for the Terrestrial Plant Ingestion Dose for Labrador tea and blueberry.	Thank you for the advice comment. This will be addressed, as possible, once the EIS is updated following the conclusion of the information requirement (IR) process.
AD-43	CNSC	Appendix 10-A (ERA), Environmental Risk Assessment for Wheeler River Technical Support Document	<p>The ERA is prepared by Ecometrix and submitted to Denison Mines. It is unclear if the ERA submitted has been reviewed and accepted by the proponent (Denison Mines).</p> <p>CSA N286-12 clause 9.5.5 specifies that “the selected supplier’s technical documents that are required to be submitted shall be reviewed and accepted”.</p> <p>Meeting these CSA N286-12 requirements will ensure that the proponent has control of the purchased services as a future licensee applicant.</p>	Provide clarifications if ERA documents have been reviewed and accepted by the proponent.	See response to IR-202 which indicates that Denison reviewed and accepted the ERA. This text will be added to Appendix 10-A.
AD-44	CNSC	Section 11	It is not clear whether all of the interested Indigenous Nations and communities were engaged on the results and findings of the Heritage Resources Impact Assessments (HHRIA) or just ERFN?	CNSC staff would appreciate an update on any engagement activities that have taken place with regards to any of the HHRIAs for the Project, or any site or thing that is of historical, archaeological, paleontological or architectural significance as requested by other Indigenous Nations and communities to date.	<p>Denison confirms that the results of the Project-related HRIAs were discussed with ERFN, as they expressed interest in further understanding the nature of the work undertaken.</p> <p>The Saskatchewan Ministry of Parks, Culture and Sport, Heritage Conservation Branch (HCB) administers The Heritage Property Act. Regulatory approval as per section 63 of The Heritage Property Act (GS 80) was granted for the Project for the two separate HRIAs (HCB File No. 16-2102, December 14, 2017 and HCB File No. 19-933 February 12th, 2020).</p> <p>The results of the HRIAs were included and formed part of the draft EIS. Comments made by Indigenous communities on this section of the EIS will therefore be responded to accordingly by Denison, where appropriate.</p> <p>Additionally, as noted in Section 11.3.2, “The Heritage Resource</p>

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					<p>Management Plan (HRMP) was informed by engagement with ERFN, who recommended that the HRMP should include a mechanism to involve Indigenous communities where appropriate (21-EN-ERFN-591.1; 21-EN-ERFN-591.2) (see Appendix 11-B).”</p> <p>The mechanism to involve Indigenous communities has been included in the HRMP and allows for general notification to Indigenous communities should an artefact be found, which provides flexibility to engage all appropriate Indigenous nations accordingly.</p>
AD-45	CNSC	Section 11.1.4.5.2. Perceived Suitability/Safe Use of Resources (p. 11-59)	<p>The EIS States: “Section 2.6.1 in Section 2 describes the extensive review of mining methods that led to the decision to adopt the ISR mining method.” (p. 11-59).</p> <p>This reference is not correct, as this section does not contain a review of the mining methods.</p>	Please update this to reflect the appropriate section.	Thank you for the advice comment. This will be addressed, as possible, once the EIS is updated following the conclusion of the information requirement (IR) process.
AD-46	TC	Section 14.6.7.2	<p>Transport Canada would like to clarify that although the proponent may use a third party to assist in developing emergency response assistance plans (ERAPs), it is the proponent’s responsibility to submit the ERAP application(s) to Transport Canada, per Section 7(1) of the <i>Transportation of Dangerous Goods Act, 1992</i> as follows:</p> <p>Emergency response assistance plan</p> <p>7 (1) No person shall import, offer for transport, handle or transport dangerous goods in a quantity or concentration that is specified by regulation — or that is within a range of quantities or concentrations that is specified by regulation — unless the person has an emergency response assistance plan that is approved under this section before</p> <p>(a) importing the dangerous goods;</p> <p>(b) offering the dangerous goods for transport; or</p> <p>(c) handling or transporting the dangerous goods, in the case where no other person is required to have an emergency response assistance plan under paragraph (a) or (b) in respect of that handling or transporting.</p>	<p>*This advice pertains to the regulatory phase.*</p> <p>Transport Canada notes that the sentence highlighted in yellow below is incorrect and should be revised or removed. While a contractor could assist the proponent to develop the ERAP(s), it is the responsibility of the proponent to apply to Transport Canada for approval of the plan(s).</p> <p>14.6.7.2 Design and Mitigation Considerations</p> <p>Principal traffic risk mitigation measures include:</p> <ul style="list-style-type: none"> • traffic control measures such as speed limits; • travel management plans; • spill and emergency response planning; and • driver training. <p>Additionally, Denison considered several provisions to make sure that the effects of a terrestrial release of hazardous materials are as low as practicable. In addition to transportation mitigations listed for Scenarios 1 and 2, the following provisions were considered.</p> <ul style="list-style-type: none"> • The <i>Transportation of Dangerous Goods Act, 1992</i> (Government of Canada 2019) outlines the requirements for entities that transport dangerous goods to establish emergency response assistance plans. These plans list specialized personnel and equipment that are required for responding to an incident. It is expected that a contractor responsible for the transportation of uranium concentrate, fuel, and hazardous chemicals would develop these plans. 	Acknowledged. Section 14 will be updated in the final EIS to clearly state that while a contractor could assist Denison to develop the ERAP(s), it is Denison’s responsibility to apply to Transport Canada for approval of the plan(s).

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AD-47	Health Canada (HC)	Appendix 14-A (p. 8-9)	<p>Context: No emergency response plan has been provided within the draft EIS, which states that emergency response plans will be developed in the future (Section 14 Appendix 14-A, p.8-9).</p> <p>Rationale: For any emergency event, Health Canada considers the protection of human health as a primary consideration in the development of emergency preparedness and response plans. This includes monitoring for human health impacts and the provision of health-related guidance. Further, this will be a requirement of the licensing process.</p> <p>The proponent should ensure that the emergency response plans consider the protection of all relevant potential human receptors that could be impacted by an onsite or project-related off-site accident involving the release of chemical and/or radiological substances.</p>	<p>It is recommended that Denison develop an emergency response plan in consultation with potentially affected communities and stakeholders that includes, but is not limited to, the following:</p> <ol style="list-style-type: none"> 1. All relevant contact information of the communities, especially related to km 160 of Hwy 914, which is the location of a cultural camp that has been established by the English River First Nation and km 67 of Hwy 914 that is a gathering location for the Kineepik Metis Local associated with the Northern Village of Pinehouse. 2. Description of the mechanisms for communication with communities in case of an emergency. 3. Description of the partnership with and the training of local communities and local responders (see Section 14 Appendix 14-B, p.1). 4. Description of mutual aid agreements with neighboring industries/municipalities, where appropriate. 	<p>Denison acknowledges the comment and thanks Health Canada for the recommendations as to the development of its Emergency Response Plan.</p> <p>As noted in the draft EIS, Denison has committed to the development of an Emergency Preparedness and Response Program as a component of its Environmental Management System (EMS). The objectives of the program are generically consistent with the recommendations that have been provided and Denison, as it has demonstrated to date, is committed to meaningful engagement with communities of interest and will solicit input and advice during all aspects of program development.</p> <p>For reference it is noted that as it concerns its EMS framework documentation hierarchy it is expected that three levels of documentation will be developed – Programs, Plans and Procedures. The emergency preparedness and response documentation will follow this hierarchy and input from interested parties will be solicited during all phase of program/plan/procedure development. Denison intends to develop this documentation as it advances through the licensing phase of Project realization.</p>
AD-48	ECCC	Appendix 16-C, Summary of Monitoring and Follow-up Programs	Appendix 16-C does not include consideration of any monitoring and follow-up programs regarding GHGs.	ECCC recommends that the Proponent consider developing a GHG follow-up program to measure and compare actual GHG emissions against the draft EIS estimates, including reporting the Project's actual emissions and updating the emissions estimates as needed.	Denison anticipates being subject to ECCC's reporting requirements for emitters over 10,000 tonnes CO ₂ e and the information is collected under section 26 of the Canadian Environmental Protection Act. This was noted in the draft EIS, Section 2.5 Greenhouse Gas Emissions.
AD-49	ECCC	Appendix 16-A Summary of Residual Effects Appendix 16-B Summary of Cumulative Effects	ECCC notes that GHG mitigation measures have not been considered for the Project. Furthermore, the Project's lifetime is expected to extend into 2050 and beyond. Consistent with the information requirements of the SACC, and aligning with Canada's commitment to achieve net-zero GHG emissions by 2050, the Proponent should provide a credible plan that describes how the Project will achieve net-zero emissions by 2050.	<p>ECCC recommends that the draft EIS include an assessment of potential GHG mitigation measures throughout all phases of the Project. This could include a Best Available Technologies / Best Environmental Practices (BAT/BEP) Determination, as described in Section 3.2 of the Draft Technical Guide.</p> <p>ECCC also recommends that the Proponent provide a credible Net-Zero Plan on how to achieve the target of 0 kt CO₂ eq/year, for the year 2050 and beyond, following the guidance of the SACC and the Draft Technical Guide.</p>	<p>GHGs were not included as a VC or KI in the draft EIS and as such, there are no specific GHG-related mitigation measures in Appendix 16. However, many of the mitigation measures for the VC Air Quality related to combustion products would also be associated with a reduction in the Project's Scope 1 emissions. As noted in the draft EIS, Section 2.5, at this stage in the Project Denison will look for opportunities to optimize energy management and improve the energy intensity of the Project where practical. Also see response for AD-19 (second paragraph).</p> <p>Denison will consider the option of preparing a climate resiliency assessment with consideration to best available technologies / environmental practices (BAT/BEP) as well as a net-zero plan as the Project advances. Section 2.5 of the EIS provides a summary of the anticipated GHG releases and a comparison to the nation- and province-wide GHG emissions. The project is expected to contribute less than 0.0043% to the nation-wide annual average. Given this very low contribution, the project is not expected to impact Canada's ability to meet its climate-related objectives and targets.</p>