Annex 2

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

Ref. #	Department	Reference to EIS, appendices, or supporting documentation [1]	Context and Rationale	Advice to the Proponent
AD-01	Canadian Nuclear Safety Commission (CNSC)	Glossary sections	There are terms used throughout the EIS that may either need defining, or inclusion in the glossary. • "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).
AD-02	CNSC	General	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).	Be consistent in how this is referred to, in order to ensure it's clear to readers that these are one and the same.
AD-03	CNSC	Throughout the Executive Summary (ES) and draft EIS	Errors in formatting and grammar were identified throughout ES and EIS. Some examples are underlined below: • "often referred to as "the final uranium product (yellowcake" (ES, p.16) • "Whitefish Lake;;" (ES, p.47) • "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)	Please correct these and any other formatting, spelling or grammatical errors.

[1] *Unless otherwise stated, the section noted refers to the draft EIS*

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			• "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. I In total, approximately 284 ha" (EIS, p. 11-156) Please note, this list is not exhaustive.	
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.
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 *Canadian Navigable Waters Act* (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/projectreview-outildexamenduprojet 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. 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
AD-06	Environment and Climate Change Canada (ECCC)	Section 2.2.3.8, Project Description	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. 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.	ECCC requests the opportunity to review the Best Available Technology Study and selected treatment technologies for the IWWTP when the report becomes available.

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AD-07	TC	Section 2.2.5.3	With respect to the proposed airstrip, under the *Aeronautics Act*, the proposed airstrip would be considered an "aerodrome", which is defined as: "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." Aerodromes, including the one proposed by Denison, are subject to the *Aeronautics Act* and the Canadian Aviation Regulations (CARs).	*This advice pertains to the regulatory phase.* 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. 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 consultation in advance of an aerodrome work that will result in sustained and regular impact on interested parties as identified in the Regulation. 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: (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. 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. 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. Further details can be found at: https://laws-lois.justice.gc.ca/eng/regulations/SOR-96-433/FullText.html#s-307.01.

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				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.
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.
AD-09	CNSC	Section 4, including Figures 4.3.1 and/or 4.3.2 and where applicable throughout the EIS.	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.
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.
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.
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.
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.
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 President' is incorrect and should be changed to say, 'Regional Director'.	Please update all wording of "Regional President" to "Regional Director" when referring to MN-S.
AD-15	ECCC	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	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	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

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		Events on the Project and Associated Mitigation; Section 15.5 Climate Change.	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). 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).	future return values for design as needed. 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.
AD-16	CNSC	Section 5.10 (p.70) and throughout the EIS	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. **Not significant** is bolded inconsistently throughout the EIS. As well, in many cases noted as "not significant", where others note "are not expected to have a significant effect".	Suggest making formatting consistent if going to use quotes and bolding to highlight sections of the text. Also, validate that use of "not significant" and "are not expected to have a significant effect" are consistently used (where appropriate).
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.
AD-18	ECCC	Appendix 6-C, Climate Baseline and GHG Emissions Report	Understanding Project emissions is important to inform analysis of a Project's potential impact on Canada's emissions targets and climate change commitments. 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. 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.	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. 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. 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.
AD-19	ECCC	Appendix 6-C, Climate Baseline and GHG Emissions Report	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.	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

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			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. ECCC recognizes that the usage of the median value of 0.51 for the carbon content is reasonable. 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 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.	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)). 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. *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.
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.
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 tock types as shown on Figure 7.3-6.
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.
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".
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".
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.
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.
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. 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.	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 discuss this potential issue with Cameco ahead of time to determine the best path forward.

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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.
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.
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. 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. 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.	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 data is adequate, and to consider if additional data, and addition of additional reference stations, will be needed moving forward.

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AD-31	CNSC	Section 8.4.6.1, Residual Effects Characterization	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.	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.
AD-32	CNSC	Section 9.1.8.3, Appendix 10-A (ERA) section 3.2.1.5	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 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). 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	Please clarify how baseline measured data on COPC concentrations in soil is considered in the current and future iterations of the ERA.
AD-33	CNSC	Section 9.3.3.1.2	Indigenous knowledge is summarized with regard to moose, including: • 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). It is unclear how this information is incorporated into the residual effects assessment.	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".
AD-34	CNSC	Appendix 9-B	Baseline studies for birds are restricted to short time frames in one year only, for example: • Breeding Songbird Point Count Call Survey (June 7 and 17, 2017) • Aerial Waterfowl and Raptor Stick Nest Survey (June 15 and 16, 2017) The Canadian Wildlife Service (2022) recommends: • 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. **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.	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.

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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.
AD-36	English River First Nation (ERFN)	Section 10.1.3.2, Traditional Foods Diet (p. 10-15)	The EIS States: "The ERFN is comprised of seven reserve lands across Saskatchewan" (p. 10-15) While this is accurately reflecting a source document, the source document is incorrect.	Please update to "The ERFN is comprised of seven historical settlements that have now grown into 19 different reserves across Saskatchewan"
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.	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. 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 or upgrades in alignment with the precautionary approach, pollution prevention, and continuous improvement.
AD-38	CNSC	Appendix 10-A (ERA)	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. 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.	Please clarify if measured or modelled COPC concentrations in blueberry / lichen were used in the calculations of human and ecological receptor dose.
AD-39	CNSC	Appendix 10-A (ERA), Table 2-2	Table 2-2: Estimated Home Ranges of Selected Terrestrial Ecological Receptors 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). 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	Please provide clear details on the source of the home range values listed in Table 2-2.
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	Please clarify if COPC modeling based on sandy soil is protective of organic/peaty soil and provide justification.

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			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.	
AD-41	CNSC	Appendix 10-A (ERA), Table 5-5	Table 5-5: Complete Exposure Pathways for All Selected Ecological Receptors to be Assessed using the IMPACT Model 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).	Please add the pathway "direct contact in water" to Table 5-5 and revise all calculations accordingly.
AD-42	CNSC	Appendix 10-A (ERA), Table B.12	Table B.12: Sample Calculation – Adult Recreational Fisher/Hunter (McGowan Lake) Dose and Risk Calculations for Selenium 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.	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.
AD-43	CNSC	Appendix 10-A (ERA), Environmental Risk Assessment for Wheeler River Technical Support Document	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). 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". Meeting these CSA N286-12 requirements will ensure that the proponent has control of the purchased services as a future licensee applicant.	Provide clarifications if ERA documents have been reviewed and accepted by the proponent.
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.
AD-45	CNSC	Section 11.1.4.5.2. Perceived Suitability/Safe Use of Resources (p. 11-59)	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). This reference is not correct, as this section does not contain a review of the mining methods.	Please update this to reflect the appropriate section.
AD-46	TC	Section 14.6.7.2	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 *Transportation of Dangerous Goods Act, 1992* as follows: Emergency response assistance plan 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 (a) importing the dangerous goods; (b) offering the dangerous goods for transport; or	*This advice pertains to the regulatory phase.* 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). 14.6.7.2 Design and Mitigation Considerations Principal traffic risk mitigation measures include: • traffic control measures such as speed limits; • travel management plans; • spill and emergency response planning; and • driver training.

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			(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.	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. • The *Transportation of Dangerous Goods Act, 1992* (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.
AD-47	Health Canada (HC)	Appendix 14-A (p. 8-9)	**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). **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. 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.	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: 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.
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.
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.	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. 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.