# Comments to CNL regarding the draft revised environmental impact statement submission for the proposed WR-1 In Situ Decommissioning Project

| Reference # | Subject Matter Expert (SME) | Reference to EIS | Context and Rationale | Comment to the Proponent |
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| **Canadian Nuclear Safety Commission (CNSC)** | | | | |
| CNSC-01 | CNSC – Indigenous and Stakeholder Relations Division | Interest and concerns tables for Black River, Hollow Water and Brokenhead | Under the concern, "*BON, BRFN, and HWFN expressed an interest in the CEAA 2012 and its requirements for soliciting information from nearby communities.*"<br><br>CNL's responses says, "*The EA is being conducted under the CEAA 2012 and Section 5 (1) (c) of the CEAA 2012 states that the assessment of effects is limited to "*the current use of lands and resources for traditional purposes.*""*<br><br>However, that is not the only factor from Section 5 (1) (c), which states "For the purposes of this Act, the environmental effects that are to be taken into account in relation to an act or thing, a physical activity, a designated project or a project are<br>(c) with respect to aboriginal peoples, an effect occurring in Canada of any change that may be caused to the environment on<br>(i) health and socio-economic conditions,<br>(ii) physical and cultural heritage,<br>(iii) the current use of lands and resources for traditional purposes, or<br>(iv) any structure, site or thing that is of historical, archaeological, paleontological or architectural significance" | Revise the question and/or response to clarify that current use of lands and resources is not the only factor under 5 (1) (c) of CEAA 2012. |
| CNSC-02 | CNSC – Indigenous and Stakeholder Relations Division | EIS Section 4.2.1 | It is not clear what is meant by the statement "*While it is recognized that determination of impacts to rights is a Crown responsibility, CNL recognizes that Indigenous engagement activities may give rise to a legal duty to consult*."<br><br>The duty to consult is raised when the Crown contemplates conduct that might adversely impact potential or established Indigenous and/or treaty rights. The information collected and measures proposed by licensees to avoid, mitigate or offset adverse impacts may be used by the CNSC in meeting its consultation obligations, however engagement activities do not give rise to the legal duty to consult. | Revise this sentence or provide clarification on what is meant by "Indigenous engagement activities may give rise to a legal duty to consult". |
| CNSC-03 | CNSC – Environmental Risk Assessment Division | EIS Section 6.2.1.4: Description of the Environment<br><br>EIS Section 6.2.2.4: Description of the Environment | Follow-up to CNSC expectation to include the measurements of air quality parameters in the LSA and RSA for comparison with measurements recorded at the Winnipeg station, and to address limitations of not having site-specific background air quality data for the assessment. | CNSC staff recommend performing air sampling as a monitoring component to verify that parameters in the LSA and RSA are below 65 Ellen Street measurements and to establish baseline before decommissioning activities begin. |
| CNSC-04 | CNSC | EIS Section 6.5.4.2.4: Benthic Macroinvertebrates | Follow-up to CNSC expectation to present results of background studies on benthic species. | CNSC staff recommend performing benthic community and/or sediment monitoring in the future at groundwater seep and upstream/downstream; however, it may also be beneficial to have more complete baseline sediment and benthic invertebrate data to compare the results to as the groundwater plume may affect sediment and benthic invertebrates in the future. |

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| CNSC-05 | CNSC | DSAR Section 2.4.5<br><br>DSAR Table 2.4.5-2 Scenario Development | Follow-up to CNSC expectation to provide a table and/or a diagram clearly describing the underlying assumptions of each scenario evaluated in the DSAR. | CNSC staff recommend, for clarity and transparency, that key model parameters used in each scenario be provided in tabular format, to clearly distinguish between the differences in model scenarios. This is considered best practice. |
| CNSC-06 | CNSC | DSAR – General<br><br>DSAR – Appendix 2.1-1 Concordance Table | CNL makes reference to REGDOC 2.11.1 Volume III, Assessing the Long-Term Safety of Radioactive Waste Management in their concordance table. | CNSC staff recommend that CNL prepare their updated safety case in accordance with REGDOC 2.11.1 Volume III, Safety Case for the Disposal of Radioactive Waste, Version 2. |
| CNSC-07 | CNSC | EIS Executive Summary: Public Engagement<br><br>EIS Table 5.3.1-1 | In the sub-section "*Effectiveness of the grout*" of the section "*Public engagement*", it is mentioned that "*The existing structure provides sufficient barrier to releases, and additional grout would not considerably increase the effectiveness of that barrier*", and that "*effectiveness of the grout and concrete materials used for the in-situ disposal system have been evaluated through the sensitivity analyses carried out as part of the Project assessment modelling*".<br><br>Also, in the sub-section "*Effects on the Environment on the Project*" of the section "*Public engagement*", it is mentioned that "*To provide further confidence, Canadian Nuclear Laboratories modelled a scenario where the concrete foundation of the Whiteshell Reactor Disposal Facility failed*".<br><br>Further, in the sub-section "*Effects on the Environment on the Project*" of the section "*Public engagement*", it is mentioned that degradation of the barriers to occur earlier than predicted is very unlikely.<br><br>As mentioned in several IRs, several aspects of the EIS have not been addressed adequately and the above statements may not be claimed until being adequately demonstrated. | CNL should revise their responses when further appropriate analyses will have been performed considering the IRs issued following CNSC staff's review of the updated EIS. |
| CNSC-08 | CNSC | General | There are references to the 2001 WL Comprehensive Study Report throughout the WR-1 EIS, but once the WL site-wide ERA is finalized (revised submission date of 2023 May 31), some of the statements and conclusions related to ERA may need to be modified. The conclusions within the lagoon and landfill ERA (CNSC comments on draft sent to CNL in 2021) need to also be considered, where they pertain to WR-1 EIS. | CNSC staff recommend CNL submit the WL site-wide ERA and the lagoon and landfill ERA without further delays. CNSC acceptance of these two outstanding ERAs and confirmation that any information they contain that pertains to the WR-1 EIS has been referenced and used, where applicable, instead of the older 2001 Comprehensive Study Report. |
| **Environment and Climate Change Canada (ECCC)** | | | | |
| ECCC-01 | ECCC - Canadian Wildlife Service | EIS Table 6.1.2-1 (pg. 6-5) | Table 6.1.2-1 lists valued components and the rationale for their assessment. The table entry related to Barn swallow states that "*because the [Whiteshell Laboratories] site is federally owned, critical habitat of the species will be afforded protection under SARA*" which is incorrect. | The critical habitat prohibitions under the *Species at Risk Act* (SARA) do not automatically apply on federal lands. The prohibitions only apply if the federal lands are National Park lands, Migratory Bird Sanctuaries, National Wildlife Areas, or if an Order has been put in place. Note that no critical habitat has been identified on the Whiteshell Laboratories Project site. Refer to SARA Section 58.4 for further information. The prohibitions under Sections 32, 33, 77 and 79 of the SARA still apply. |

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| ECCC-02 | ECCC - Energy and Transportation Directorate | EIS Section 6.2.2: Greenhouse Gasses | ECCC recognizes that climate change was a valued component in the assessment and some greenhouse gas (GHG) information is included in the EIS.<br><br>While the Strategic Assessment on Climate Change (SACC) does not apply directly to the WR-1 Project as it is being assessed under CEAA 2012, the proponent may find the technical guidance of the SACC helpful in assessing the impacts to climate change and in ensuring consistent, predictable, efficient and transparent consideration of impacts to climate change. | ECCC recommends that the proponent:<br><br>a) provide details on net GHG emissions by identifying the WR-1 Project's main sources (as defined in the draft Technical Guide related to the Strategic Assessment of Climate Change (SACC)[1]) and describing GHGs for each source;<br>b) provide yearly estimates of net GHG emissions, including methodology, data, emission factors and assumptions used;<br>c) provide a qualitative and quantitative description of the potential positive or negative effects of the WR-1 Project on the site's carbon sink capacity. Additional guidance on the methodology to estimate losses or gains to carbon sinks is available in the draft Technical Guide related to the SACC[2]; and<br>d) demonstrate consideration of Best Available Technologies and Best Environmental Practices (BAT/BEP) as described in section 3.2 of the SACC, and the draft Technical Guide related to the SACC. |
| ECCC-03 | ECCC - Energy and Transportation Directorate | EIS Section 6.2.2: Greenhouse Gases<br><br>EIS Section 6.2.2.5.1: Methods | The proponent stated that "*The reporting threshold for the [Greenhouse Gas Reporting Program] GHGRP is 50,000 tonnes of $CO_2e$*". This is incorrect as the reporting threshold is 10,000 tonnes of $CO_2e$ per year[3]. | CNL should update any information and assumptions made based on the incorrect reporting threshold. |
| ECCC-04 | ECCC – Nuclear Support and EPOD PNR | Groundwater Flow and Solute Transport Modelling Report Section 4.1.4: Assumptions on the Grout and Table 4-4<br><br>EIS Section 3.5.1.2: Grouting of Below Grade Structures and Systems<br><br>EIS Section 2.5.4.5: Alternative #5 – In Situ Disposal Using Alternative Backfill Materials | ECCC considers the transport of contaminants out of the Whiteshell Reactor-1 disposal facility by groundwater to surface water or other receptors to be a critical potential environmental impact of the WR-1 Project.<br><br>The hydrogeological model uses an equivalent porous media approach, which considers the Whiteshell Reactor-1 disposal facility as a uniform porous media with parameters that are approximated to be "equivalent" to anticipated real conditions. To consider how hydraulic conductivity and by relation real flow will increase as grout degrades, the proponent has applied a step function that multiplies the initial hydraulic conductivity of the grout by increasingly larger values over time. The multiplier values selected for the step function were not scientifically substantiated.<br><br>As grout ages, fractures and cracks typically form. Such fractures act as preferential pathways for groundwater and depending on the fracture width can result in water flow that is drastically faster than through unfractured grout. Given the prevalence of cold joints that will be present throughout the grout, the risk of large width fractures increases.<br><br>There is considerable challenge in predicting and modelling groundwater flow through grout over time, given the propensity of grout to fracture and the unpredictability of 1000+ years of grout degradation. Notably, the predictive capacity of the model is only as accurate as the values selected in the hydraulic conductivity step function. For this reason, it is essential that hydraulic conductivity values selected for the model are scientifically substantiated, which requires | ECCC encourages the proponent to consider alternative means approaches or to provide additional scientific evidence to demonstrate no risk to surface water and receptors through the groundwater pathway.<br><br>Alternative approaches may include, but are not limited to:<br><br>• The use of material(s) in lieu of grout for part or all of the in-situ decommissioning that have a well understood hydraulic conductivity and that do not fracture. This may include the consideration of entombment materials that have been used in other forms of disposal for radioactive waste. Some examples (non-inclusive) are the use of a bentonite clay buffer box or using a mixture of bentonite and an aggregate material to meet structural requirements. The consideration of different backfill materials for their longevity, lack of propensity for fracturing and low hydraulic conductivity were not considered in Section 2.5.4.5 of the EIS under Alternative #5: In Situ Disposal Using Alternative Backfill Materials.<br>• Removal of the grout from consideration in the model altogether. As fracture flow can be drastically higher than the surrounding subsurface material, such an approach would require modelling contaminants as being instantaneously released to the area outside of the grout and subsequently transported with groundwater.<br><br>Ultimately, the hydrogeology model should clearly demonstrate that the Winnipeg River will not be contaminated. Supporting evidence and key parameter values used in the model should be scientifically supported. Given the challenge of obtaining scientific information related to groundwater flow through highly degraded and/or fractured grout, and the resulting uncertainty about the |

[1] Strategic Assessment of Climate Change (SAAC) - Draft technical guide related to the strategic assessment of climate change - Canada.ca
[2] Technical Guide related to the Strategic Assessment of Climate Change - Draft technical guide related to the strategic assessment of climate change - Canada.ca
[3] Greenhouse Gas Reporting Program

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| | | | consideration of how grout will degrade over extremely long timeframes, particularly as it relates to fracture flow.<br><br>**Rationale:**<br>It is difficult to develop a scientifically supported model of how grout in the WR-1 Project will degrade over 1000+ years including impacts to groundwater flow. Currently available information is insufficient to assess if the Winnipeg River may at some point be contaminated through the groundwater pathway. Given this uncertainty resulting from the unpredictability of groundwater flow through grout that has degraded over 1000+ years, it may be preferable to consider alternative approaches to preventing the release of contaminated groundwater from the Whiteshell Reactor-1 disposal facility. At a minimum, scientific evidence should be presented that clearly demonstrates that contaminated groundwater will not reach the Winnipeg River. | predicted effects to surface water receiving environments, alternative approaches should be considered. |
| **Health Canada (HC)** | | | | |
| HC-01 | HC | ERA Table 4-2 (pg. 67)<br><br>ERA Table 5-3 (pg. 138) | The ERA does not consider potential radiological exposure of the harvesters via incidental ingestion of/external exposure to soil and sediment for the closure phase (ERA, Table 4-2) or via incidental ingestion of soil and sediment for the post-closure phase (ERA, Table 5-3). | It is recommended that CNL include in the HHRA the radiological exposure of the harvesters via incidental ingestion of and/or external exposure to soil and sediment. |
| HC-02 | HC | ERA Table 3-7 (pg. 49)<br><br>ERA Table 3-14 (pg. 55)<br><br>ERA Table 3-16 (pg. 57)<br><br>ERA Table 3-17 (pg. 60) | a) Uranium is evaluated as a radiological contaminant (ERA, Tables 3-7 and 3-16), but not assessed for its chemical (i.e., non-radiological) health impacts (ERA, Tables 3-14 and 3-17). Note that GCDWQ defines a health-based (i.e., kidney toxicity) guideline value of 0.02 mg/L for non-radioactive uranium[4]. Health Canada also supports a risk assessment for exposure to nonradioactive uranium based on an applicable TRV (0.0006 mg/kg bw-day)[5].<br>b) The ERA considers two uranium isotopes, U-235 and U-238, in the closure phase, while additional isotopes, such as U-233, U-234, and U- 236, are also evaluated in the post-closure phase. It remains unknown why different uranium isotopes are considered for the two project phases. | HC encourages CNL to:<br><br>a) Provide predicted mass concentrations of all uranium isotopes in the environment and conduct a screening against health-based environmental quality criteria, and/or health risk assessment.<br>b) Provide rationale for including different uranium isotopes in the risk assessment for the closure phase and post-closure phase. |
| HC-03 | HC | ERA Appendix D, Section 2.8 (pg. 654)<br><br>ERA Appendix D, Section 3.3.1 (pg. 665)<br><br>ERA Appendix D, Section 4.3.1 (pg. 697) | To assess the acceptability of the health risks associated with the Disruptive Events, the predicted radiological doses are compared to the International Atomic Energy Agency (IAEA) reference level1 ranging from 1 mSv/yr to 20 mSv/yr (ERA, Appendix D, Sections 2.8, 3.3.1, and 4.3.1). However, the cited IAEA document does not stipulate the range as an "acceptable" dose level and, therefore, the statement can be misleading [see further information in the paragraph 2.15 (e)[6]]. Please note that the International Commission on Radiological Protection (ICRP) advises the use of an annual dose of 10 mSv as a reference level for 'human intrusion' circumstances (see further information in the paragraph 64 of the ICRP Publication 81[4]) and a dose range of 1 to 20 mSv/yr for 'existing exposure situations' (see further information in Table 8 of the ICRP Publication 103[7]). | HC encourages CNL to:<br><br>• Revise the statements about the IAEA reference level to better align them with the cited reference1; or<br>• Cite an alternative reference (e.g., ICRP Publication 1033) and provide a rationale on how the post-closure exposure scenarios considered in the ERA can represent an existing exposure situation described in the reference; or<br>• Use an alternative reference level (i.e., 10 mSv/yr in the ICRP Publication 81[4]) that may be more relevant to the post-closure exposure scenarios considered in the ERA. |

[4] International Commission on Radiological Protection (ICRP). 2000. ICRP Publication 81, Radiation Protection Recommendations as Applied to the Disposal of Long–lived Solid Radioactive Waste. Vol.28: No.4.
[5] Canadian Standards Association (CSA). 2014. N288.1-14. Guidelines for calculating derived release limits for radioactive material in airborne and liquid effluents for normal operation of nuclear facilities.
[6] International Atomic Energy Agency (IAEA). 2011. Disposal of Radioactive Waste. Specific Safety Requirements SSR-5. Vienna: International Atomic Energy Agency. ISBN 978-92-0-103010-8. Available at http://www-pub.iaea.org/books/iaeabooks/8420/Disposal-ofRadioactive-Waste-Specific-Safety-Requirements
[7] ICRP. 2007. ICRP Publication 103, The 2007 Recommendations of the International Commission on Radiological Protection. Vol.37: No.2-4.

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| HC-04 | HC | EIS Table 6.2.1-9 (pg. 368) | Baseline levels of 1-hr $NO_2$ and $SO_2$, and 24-hr $PM_{2.5}$ are derived from the 90$^{th}$ percentile data values from a National Air Pollution Station (NAPS) (Table 6.2.1-9). However, the applicable air quality screening criteria, or the Canadian Ambient Air Quality Standards (CAAQS)[8] [see new IR 223_R2 in the IR Table 3], are based on the annual 98th percentile concentrations ($PM_{2.5}$ and $NO_2$) or 99$^{th}$ percentile concentrations ($SO_2$).<br><br>Note that, since the last EIS review in September 2017, the CAAQS came into effect, replacing the Canadian National Ambient Air Quality Objectives. The CAAQS also provides more protective screening values than Manitoba Ambient Air Quality Criteria. | HC encourages CNL to establish baseline levels of air contaminants based on the NAPS data with appropriate statistics and averaging periods that are associated with CAAQS values. |
| HC-05 | HC | ERA Table 4-5 (pg. 78-79)<br><br>ERA Table 4-6 (pg. 80) | a) While the Canadian Standards Association[5] recommends estimating radiological exposure based on the 95$^{th}$ percentile intake rates for food, water, soil and air, the ERA estimates the Farm A and Farm F residents' radiological exposure based solely on mean intake rates (ERA, Table 4-5). The approach may not be sufficiently conservative to protect vulnerable subgroups (e.g., 'heavy' consumers of foods).<br>b) Additionally, it appears that the food intake rates for Indigenous children and infants are estimated by scaling down the adult intake rates for local Indigenous communities[9] based on the age group-specific intake ratios for the general Canadian population[8] (ERA, Table 4-6). | HC encourages CNL to:<br><br>a) Provide the health risk values based on the 95$^{th}$ percentile intake rates for food, water, soil and air, as well as the mean intake rates, to determine the health risks for vulnerable subgroups.<br>b) Discuss uncertainties associated with the use of the age-dependent food intake ratios for the general Canadian population to estimate Indigenous communities' food consumption patterns |
| HC-06 | HC | ERA Table 5-19 (pg. 176) | In the ERA, health risks related to the ingestion exposure route are calculated based on out of date Toxicological Reference Values (TRVs) for cadmium (1.00E-03 mg/kg-bw/day) and lead (1.85E-03 mg/kg-bw/day) (ERA Table 5-19). Please note that Health Canada published new or revised TRVs[10] in March 2021, including revised provisional TRVs/TDIs for cadmium (0.0008 mg/kg bw-day) and lead (0.0005 mg/kg bw-day). The use of new TRVs is expected to provide adequate protection to sensitive subgroups, such as toddlers and children. Since lead is a non-threshold contaminant, for which there is no safe level of exposure, consider project improvements to keep lead emissions as low as reasonably achievable. | HC recommends CNL use current Health Canada (2021) TRVs for cadmium and lead in the human health risk assessment (HHRA). Alternatively, provide further rationale on how the use of the select TRVs can provide adequate protection to sensitive subgroups. |
| HC-07 | HC | EIS Table 6.4.2-5 (pg. 519) | The Guidelines for Canadian Drinking Water Quality (GCDWQ) levels cited in table 6.4.2-5 (pdf pg.519) for copper are indicated as not available, and levels for lead are indicated as 10 µg/L. Note that the most recent GCDWQ[11] defines maximum acceptable concentrations of 2,000 µg/L for Cu and 5 µg/L for Pb, respectively. | HC encourages CNL to include values in the Table 6.4.2-5 from the most recent Guidelines for Canadian Drinking Water Quality (Health Canada 2022). |
| HC-08 | HC | ERA Section 4.2.4.1 (pg. 80) | The ERA states that *"(a)ny radionuclides not already included in the IMPACT™ database were added with appropriate parameter values (including Ac-225, Ac-227, Ag-108m, Bi-210, Ca-41, Gd-152, Ni-59, Pa-231, Pa-233, Pa-210, Pb-210, Po-210, Ra-223, Ra-224, Ra-225, Ra-228, Th-227, Th-230, Th-231)*" (Section 4.2.4.1). However, the Pa-210 appears to be an erroneous entry as the element does not exist. | HC recommends CNL verify the list of radionuclides used in the IMPACT™ database. |

[8] Canadian Council of Ministers of the Environment (CCME). Canadian Ambient Air Quality Standards. Available at: https://www.ccme.ca/en/air-qualityreport#slide-7
[9] Canadian Nuclear Laboratories (CNL). 2018a. Aboriginal Food Intake Survey. Memo from Jesse Gordon to Brian Wilcox. WLDP-26000-021-000, September 2018
[10] Health Canada.2021. Federal Contaminated Site Risk Assessment in Canada: Toxicological Reference Values (TRVs), Version 3.0. Available at: https://publications.gc.ca/collections/collection_2021/sc-hc/H129-108-2021-eng.pdf
[11] Health Canada. 2022. Guidelines for Canadian Drinking Water Quality. Available at: https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/ewhsemt/alt_formats/pdf/pubs/water-eau/sum_guide-res_recom/summary-tables-sept-2022-eng.pdf

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| HC-09 | HC | ERA Section 4.2.3.1 (pg. 74-76)<br><br>ERA Section 4.2.4 (pg. 76)<br><br>ERA Section 5.2.4 (pg. 148)<br><br>ERA Table 4-5 (pg. 78-79) | The ERA states that shielding factors[12] are considered in the calculation of radiological doses (Sections 4.2.3.1, 4.2.4 and 5.2.4). However, shielding factors are not included in the list of exposure factors used in the calculation of radiological doses (Table 4-5). | HC recommends CNL include shielding factors in the list of exposure factors used to calculate radiological doses. |
| **Manitoba Métis Federation (MMF)** | | | | |
| MMF-01 | MMF | Related to IR #1 (round 1) | | The MMF accepts the rationale used by CNL in the application of the terms "*Aboriginal*", "*Indigenous*", "*First Nations*" and "*Métis*" within the EIS. However, the MMF continues to raise concern about how the application of baseline information, concerns, commitments, and plans are considered through a distinctions-based lens, ensuring that the unique values and concerns of First Nations and Métis are always understood independently, rather than addressed collectively as though consideration for Indigenous interests. |
| MMF-02 | MMF | Related to IR #2 (round 1) | | The MMF appreciates the changes CNL has provided to the EIS and executive summary. However, the MMF note that they are in the ongoing process of redefining their relationship with Canada and as a result, the description of the relationship the MMF and the Red River Métis hold with the Crown and the proponents is continuously evolving. The MMF expect that as additional information is made available regarding these relationships, CNL will continue to work with the MMF to understand the implications for the Whiteshell site, and have that information reflected in living and future documents. |
| MMF-03 | MMF | Related to IR #4 (round 1) | | The MMF acknowledges that CNL has included language speaking to the potential impacts of the project on physical health as a result of the ingestion of country foods; however, this only represents a relatively small portion of the larger discussion on socioeconomic impacts. CNL fails to consider the long-term and psycho-social impacts in the form of behavioral shifts or loss of identity, health impacts related to changes in diet as a result of a reduced intake of country foods, and economic losses as a result of perceived impacts to quality of commercially harvested fish or wildlife.<br><br>Additionally, assessment of these impacts must be considered over an indefinite period of time in which cultural perceptions and relationships with nuclear projects may shift. As a result, CNL must provide a much more in-depth discussion on this topic. |
| MMF-04 | MMF | Related to IR #9 (round 1) | | The MMF is concerned that while CNL has provided a logical breakdown of key concerns raised by Indigenous communities, including the MMF, CNL fails to respond substantially to the concerns raised. Specifically, concerns regarding "*Accidents and Malfunctions*", "*Business and Employment Opportunities*", "*Future Land Use and Tenure for the Whiteshell Laboratories Site*", and "*Participation in Environmental Monitoring*" all are addressed by CNL committing to continue to work with all communities on issues.<br><br>While the MMF appreciate that CNL is willing to commit to working with the MMF and other, the MMF lack confidence in these commitments to drive meaningful issue resolution. Therefore, the MMF believe that CNL needs to work with communities during the contemplation of the proposed WR-1 to |

[12] Canadian Standards Association (CSA). 2014. N288.1-14. Guidelines for calculating derived release limits for radioactive material in airborne and liquid effluents for normal operation of nuclear facilities

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| | | | | properly address outstanding concerns as per the spirit and intention of CNSC's *Generic EIS Guidelines*, p.8.<br><br>The MMF also note that under the concern headings "*The In Situ Disposal Approach*" and "*Alternative Means Assessment*", CNL acknowledges the fundamental difference in position between CNL and the MMF and Sagkeeng First Nation; however, CNL doesn't provide any meaningful description of how they will resolve this impasse. This lack of meaningful discussion is substantiated in EIS Section 2 "*Purpose of the Project and Alternatives Assessment*", speaking further to this impasse without providing an attempt to reach a resolution. |
| MMF-05 | MMF | Related to IR #10 (round 1) | | This Information request largely deals with engagement with the general public, rather than specifically with the MMF. However, the MMF note that CNL continues to present only a partial analysis of the Alternatives Means Assessment leading to the conclusion that in-situ disposal is the preferred option. While it is valid that CNL's analysis does lead CNL to this conclusion, it fails to recognize the caveats discussed in greater depth in the section of the EIS, which acknowledge the inherent subjectivity in any alternatives analysis. While the MMF is not in a position to confirm whether the information presented in revised EIS text accurately reflects that which was shared with the general public and stakeholders, the MMF are concerned that if this is indeed what was shared, the information does not serve the public in informing meaningful options of the project.<br><br>The MMF is concerned that the information presented regarding key concerns and issues raised and CNL's responses to each of the concerns and issues raised during public and stakeholder engagement activities carried out to date does not explore the depths of particular concerns raised, nor the potential impacts beyond them being identified as concerns. While the general public and stakeholders do not have rights protected in the manner that Indigenous communities would through section 35 of the *Constitution Act*, the MMF note that many Red River Métis citizens may use public engagement as a preferred mode of engaging with CNL rather than through the MMF. As a result, it is essential that CNL not only identify concerns, but then understand the resulting impacts in order to effectively consider how to mitigate impacts on all who are affected by the project. |
| MMF-06 | MMF | Related to IR #28 (round 1) | | In presenting information on how public and Aboriginal engagement influenced the alternative means assessment, CNL continues to only provide window dressing rather than truly consider the factors selected to perform the alternatives assessment. For example, the MMF has repeatedly noted that psycho-social factors (fear, anxiety, behavioral modification), long-term maintenance and cost, and generational threats must be appropriately considered in the alternatives assessment. To date, CNL continues to focus on short-term factors within the Alternatives Assessment. Additionally, the MMF has repeatedly raise the concern of whether an in-situ decommissioning approach represents the best feasible alternative that reflects the public interest. Finally, the MMF and others have raised concerns regarding the subjective nature of the alternatives assessment. The additional language fails to appropriately quantify the degree of subjectivity in the assessment and as a result, CNL continue to present an alternatives assessment that is favorable to the alternative that is presented, without acknowledging the validity of other approaches or contemplating the limitations of CNL's approach.<br><br>Ultimately, in considering feedback regarding public and Aboriginal engagement, CNLs fail to make a compelling case on how an alternatives assessment that identifies in-situ decommissioning as the preferred option is the superior to other scenarios presented in which in-situ decommissioning |

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| | | | | identifies other options as preferred. |
| MMF-07 | MMF | Related to IR #54 (round 1) | | The MMF recognizes that this IR needs to be continually updated until the submission of the final EIS. As the MMF is currently in the final stages of negotiating a Modern Treaty with Canada, the MMF request that in addition to routine updates, CNL engage specifically with the MMF following the signing of the Treaty to gain specific understanding of how the Modern Treaty will influence the MMF's relationship with CNL, Canada, Manitoba, and other parties for the purpose of this project. The bill empowering the Modern Treaty is expected to be delivered to the House of Commons by summer 2023. |
| MMF-08 | MMF | Related to IR #124 (round 1) | | CNL does not make a meaningful attempt to demonstrate how additional Traditional Knowledge obtained from the MMF and Red River Métis citizens was used in understanding the relationship between the proposed activities and the exercise of rights and the use of Traditional Knowledge. CNL fails to connect how traditional knowledge is maintained and how traditional land use is conducted within the lens of the Whiteshell WR-1 project, which must consider both the historic changes in behaviour, knowledge, and practice by Red River Métis citizens, as well as how a decision to approve in-situ decommissioning would perpetuate impact to behaviour, knowledge, and practice. This fundamental connection is lost in presenting and analyzing valued components. |
| MMF-09 | MMF | EIS Section 2.4: Design Principles from External Sources | CNL outlines 15 requirements considered in the development of the WR-1 decommissioning plan to align with International Atomic Energy Agency (IAEA) General Safety Requirements Part 6, *Decommissioning of Facilities.* Requirement 8 states that the licensee shall select a decommissioning strategy that will form the basis for the planning of decommissioning. The strategy shall be consistent with the national policy on the management of radioactive waste. In response, CNL states "*In absence of a well-defined national waste strategy, CNL continues to pursue a risk-based approach to radioactive waste management that complies with all CNSC regulations, applicable legislation, and where appropriate aligns with international guidance and best practices.*"<br><br>In 2022, Canada released a draft entitled: *Modernizing Canada's Policy for Radioactive Waste Management and Decommissioning.* While this policy remains a draft, it does represent the most relevant and up to date position from Canada on the handling of radioactive waste material and decommissioning approaches. Section 2.5 of the policy states waste producers and owners will "*work in partnership with First Nations, Inuit and Métis communities to gain a greater understanding of their Indigenous Knowledge, approaches and advice in implementing the siting, construction, operation and monitoring or radioactive waste management and decommissioning projects*".<br><br>Additionally, Section 2.6 of the policy states waste producers and owners will "*engage with Indigenous peoples, provinces, territories, interested communities, scientific experts and other interested persons in Canada to develop and maintain an integrated strategy for radioactive waste management and decommissioning activities that defines, reports on and sets out approaches for the long-term management, including disposal, of all Canada's current and future radioactive wastes*". Input from both the MMF and First Nations affected by this project has overwhelming demonstrated opposition to ISD as the preferred approach. | Given the direction provided by this draft policy, which CNL should be aware of and be prepared to align with, assuming it will be adopted by Canada, the MMF requests CNL provide an overview on how they view the alignment of ISD and the approach outlined in the project description with Section 2.5 and 2.6 of *Modernizing Canada's Policy for Radioactive Waste Management and Decommissioning.*<br><br>**CNSC Note: To be addressed through the licensing process and not part of the EA review** |

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| MMF-10 | MMF | EIS Section 2.4: Design Principles from External Sources | In 2022, Canada released a draft entitled: *Modernizing Canada's Policy for Radioactive Waste Management and Decommissioning.* While this policy remains a draft, it does represent the most relevant and up to date position from Canada on the handling of radioactive waste material and decommissioning approaches.<br><br>Section 1.4 of the draft policy recognizes the federal government's responsibility to "*recognize the long time scales associated with the management of radioactive waste and the associated obligations to ensure ongoing stewardship of radioactive waste disposal facilities and sites once closed, so that they remain safe and secure for people and the environment in perpetuity. The federal government ensures that responsibility for maintaining institutional controls over the very long-term is assign to an appropriate entity, and that there is continuity of responsibility over successive entities if necessary, and, where no appropriate entity is available, it work with other levels of government to develop arrangements to ensure that such controls are maintained*."<br><br>The MMF recognizes the complex relationship between CNL, AECL, the CNSC and other Ministries, agencies and departments within the federal government providing operations, ownership, and oversight over the WL site. While responsible for decommissioning of the WR-1 reactor, CNL is not specifically responsible in perpetuity for maintaining operational control over the WL site. This is further complicated in that CNL, although an enduring entity that is a wholly-owned subsidiary of AECL, is managed by a contractor (currently a consortium named the Canadian National Energy Alliance) that must undergo contract renewal on a recurring basis. As a result, AECL, the CNSC, and Canada are better position to describe the long-term planning for the site including application and maintenance of institutional controls. | The MMF requests AECL and/or the CNSC provide an overview on how the WL site will be managed, including how institutional controls will be applied and maintained in perpetuity or until radioactive material no longer poses a risk to the public or the environment, in accordance with direction outlined in the draft policy *Modernizing Canada's Policy for Radioactive Waste Management and Decommissioning.*<br><br>**CNSC Note: To be addressed through the licensing process and not part of the EA review** |
| MMF-11 | MMF | EIS Section 2.4: Design Principles from External Sources | CNL outlines 15 requirements considered in the development of the WR-1 decommissioning to align with IAEA General Safety Requirements Part 6, *Decommissioning of Facilities.*<br><br>Requirement 15 states "*On the completion of decommissioning actions, the licensee shall demonstrate that the end-state criteria as specified in the final decommissioning plan and any additional regulatory requirements have been met. The regulatory body shall verify compliance with the end-state criteria and shall decide on termination of the authorization for decommissioning*."<br><br>Given the importance of end-state planning to not only complying with international guidelines of decommissioning, but also to accomplishing the overall goals for this project, an end-state plan is vitally important to consider prior to the approval of the WR-1 project. | The MMF requests that CNL work with the MMF in co-drafting an "end-state" management plan that identifies specific goals and actions to be taken at all phases of the decommissioning and post-closure, such that the end-state for WR-1 and the overall WL site reflect the vision and values of the Red River Métis.<br><br>**CNSC Note: To be addressed through the licensing process and not part of the EA review** |
| MMF-12 | MMF | EIS Section 2.5.4.3.2: Economic | In the alternatives assessment, CNL provides a discussion on the economic feasibility for each proposed alternative. As presented, the scope of the EIS fails to consider long-term maintenance costs and requirements for the ISD approach. Human-made materials such as grouting have a finite lifespan which degrade over time. In order to | The MMF requests that CNL provide an assessment of the estimated lifespan of the primary materials used to entomb the WR-1 reactor to support the ISD approach. Included in this assessment, the MMF requests a summary of probable maintenance, as well as a timeline for that maintenance to be undertaken. |

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| | | | preserve the functionality of ISD, structures using these materials must be maintained. | Finally, the MMF requests that costs (corrected for predicted inflation) be incorporated into the total cost estimate to ensure that the full life cycle costs are appropriately accounted for and considered. |
| MMF-13 | MMF | Sagkeeng Alternative Means Assessment Section 2.8: Approach and Findings | Sagkeeng First Nation offer their own Alternative Means Assessment which outlines vulnerabilities in CNL's Alternative Means Assessment, specifically in regards to the influence of scope and weighting on determining the final outcome. The MMF recognizes the value of Sagkeeng's assessment and appreciate the effort and resources that went into this exercise.<br><br>Sagkeeng has requested a "*true multi-party and multiple accounts evaluation*" that "*would look at differing perspectives and findings, and try to find a jointly preferred, or at minimum a jointly acceptable, solution*". CNL has stated that they strongly considered Sagkeeng's views, opinions and interests and have ongoing recommendations and activities that reflect their input on alternative means. CNL believes that conducting additional Alternative Means Assessments, including by way of another assessment tool such as multiple accounts evaluation, will not yield any additional insights that have been already made clear.<br><br>The MMF is disappointed by CNL's dismissal of Sagkeeng's request and sees value in conducting this further iteration of alternatives assessment. | The MMF requests that CNL conduct a multi-party and multiple accounts evaluation, including perspectives of Sagkeeng First Nation and the MMF within the formal alternatives assessment. |
| MMF-14 | MMF | EIS Section 6.5.4.3: Assessment Cases | CNL has characterized the environment prior to ISD as a "Base Case" to compare any closure or post-closure effects to the environment. The MMF are extremely concerned that the proponent has adopted a shifting baseline and is negligent in their protection of the aquatic environment and the fish harvesting rights of the Red River Métis. Baseline data (before any WL construction or activities) should be used to assess any project related effects to the aquatic environment. | The MMF requests CNL revisit the pathways analysis to determine which pathways project activities are likely to effect or have already affected the aquatic environment compared to baseline as opposed to the negligent "Base Case" scenario. The MMF requests that CNL conduct subsequent assessment of the aquatic environment and re- perform assessment steps 4-8 for the entire decommissioning of WR-1 which were entirely absent from the revised EIS due to CNL's limited commitment to adequate protection of the aquatic environment under their base case definition and framework. |
| MMF-15 | MMF | EIS Section 6.5.6.2.1: No Linkage Pathway | CNL claims that best management practices are used for any work within 30 meters of water at the WR-1 Project but does not provide said best management practices for review of adequate measures in place on site to protect the aquatic environment. | For review of adequate protection measures for the aquatic environment, the MMF requests that CNL provide the best management practices that groundcrews use when conducting work near water.<br><br>These best management practice packages should include as a minimum:<br>• monitoring criteria and methods;<br>• frequency of monitoring;<br>• evaluation criteria of sediment retention measures such as silt curtains and strawbales;<br>• action plan in the event of an erosion control structure failure; and<br>• mitigation measures that are immediately available in the case of said failures. |
| MMF-16 | MMF | General | Conditions of the high-level waste disposal program (Integrated Waste Strategy Objectives) created by the CNSC in the 1990s stipulated that the waste must be isolated from the biosphere and should not be a burden on future generations. The WR-1 decommissioning as described in the EIS will not isolate the waste from the biosphere and requires Institutional Control of the site until 2324, with active monitoring occurring for the first 100 years. This places a commitment on future generations and means that there is the possibility of exposure of released radionuclides to the public and the Red River Métis. | The MMF believes the alternative of moving the radioactive material to a final disposal site should be seriously considered. In terms of exposure modelling and access to the site, adopting a model that allows for unrestricted access to the site is the conservative approach. |

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| MMF-17 | MMF | EIS Section 6.8.1.2: Indigenous Engagement Feedback – Key Interests and Concerns | CNL committed to determining future use of the Whiteshell site in collaboration with Indigenous Nations; however, the MMF finds that this commitment falls short of expectations in understanding the long-term implications of future use. Unlike most other projects that undergo environmental assessments, this project is solely focused on understanding impacts of closure and post-closure. As a result, it is essential to clearly define future use of the Whiteshell site when contemplating the impacts of this project. | The MMF requests that CNL provides examples or scenarios of possible future use based on input for the MMF and First Nations. This information is necessary to understand the longer-term impacts and implications on the future exercise of rights. |
| MMF-18 | MMF | EIS Section 6.8.1.4.3: Assessment Cases | The analysis of reasonably foreseeable developments is flawed given the potential duration of effects which extends for at least 10,000 years as outlined in the temporal boundaries. While the MMF agree it is not possible to foresee projects that far in advance, the analysis must take a different approach to foresee the likelihood of some level of development over at a minimum the 100-year Institutional Control phase. Specifically, there must be acknowledgement that within the temporal scope of the analysis, other development will occur even if not identified. | The MMF requests that CNL develop an assessment methodology to account for development changes over the 100-year Institutional Control phase, the 10,000-year post-Institutional Control phase, as well as provide analysis on potential project interactions over this period. If such a methodology cannot be developed, the MMF requests that CNL develop plausible development scenarios to assess possible interactions.<br><br>**CNSC Note: To be addressed through the licensing process and not part of the EA review** |
| MMF-19 | MMF | EIS Section 6.8.1.6.2: Results | The MMF and Red River Métis citizens have directly raised concerns regarding the psycho-social impacts of ISD to those raised by Sagkeeng First Nation. These concerns include potential behaviour modifications impacting the exercise of rights, fear and stigma related to the continued perceived impacts of radioactive material being left in place, environmental racism, and adverse impacts on identity and culture. However, as outlined in the EIS, CNL fails to recognize these psycho-social impacts as they relate to impacted Red River Métis citizens. | The MMF requests that CNL provide evidence on the potential psycho-social impacts to Red River Métis citizens, demonstrating that this information has been collected, assessed, and appropriately addressed in the EIS. It is requested that existing and future psycho-social impacts be appropriately described/predicted, as well as appropriate mitigation measures be employed. |
| MMF-20 | MMF | EIS Section 6.9.2: Indigenous Engagement and Feedback<br><br>EIS Table 6.9.2-1 | Table 6.9.2-1 in Section 6.9.2 of the EIS outlines the psycho-social aspects under the future land use concern; however, it has come to our attention that the psycho-social impacts have not been meaningfully considered throughout the assessment's lifecycle. Given that this is a nuclear project, it is crucial to understand that the threat of radioactivity is often misunderstood, which means that the presence of any radioactive material in the environment is sufficient to influence behaviour and therefore represents a threat to Red River Métis rights. Limiting or omitting such considerations until the monitoring, follow-up, and post- closure phases is likely to result in an amplification of psycho- social and perceptions-based impacts on Red River Métis rights.<br><br>Furthermore, it has been noted that the Proponent states "*Psychosocial aspects are important to SFN, and as such CNL has included them in Section 6.9.6.2.2 Secondary Pathways*" (p. 6-511). However, the records show that through the previous submissions, the MMF has also highlighted the importance of psycho-social inclusion throughout all phases of the assessment multiple times. It is therefore imperative that the psycho-social impacts are meaningfully considered and addressed throughout the entire assessment's lifecycle to ensure that the Red River Métis rights are adequately protected. | The MMF requests that CNL provides supporting evidence to their residual effects assessment demonstrating that there will not be permanent irreversible impacts on behaviour and cultural-spiritual relationships with the land as a result of the ISD approach. As an example, CNL is requested to provide data that demonstrates the ISD approach will not result in harvesting avoidance behaviour among Métis harvesters surrounding the project site. It is essential to understand the potential and long-term psycho-social impacts of the ISD approach to ensure that it does not adversely impact the rights and well-being of the Red River Métis. |
| MMF-21 | MMF | EIS Section 6.9.6.2: Results<br><br>EIS Table 6.9.6-1 | CNL in the draft EIS noted, "*To the extent feasible, CNL will work with interested Indigenous peoples to provide employment opportunities during decommissioning activities. For example, CNL worked to enhance options to better match capabilities of First Nation members and Red River Métis citizens with their contracting needs, including adding provisions to its procurement process that encourages the use of Indigenous and local small and medium sized businesses…"* (p.6-575). CNL must | The MMF requests to review any procurement strategies and employment plans that favour Indigenous and local businesses. The proponent is requested to clarify how they plan to enhance Indigenous employment and contracting throughout the project. |

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| | | | clarify how they plan to encourage and empower the use of Indigenous local communities in terms of employment, procurement, and contracting. | |
| MMF-22 | MMF | EIS Section 6.9.6.2.2: Secondary Pathways | The EIS states "*The implications of the change in decommissioning activities associated with WR-1 does not necessarily alter the number of new employment and/or contracting opportunities during the closure phase, but rather indirectly changes the nature of the employment and/or contracting opportunities available. Previously, the above- and below-grade infrastructure of WR-1 would have been dismantled, packaged and dispositioned to appropriate disposal sites. This would have resulted in construction and transport opportunities. The proposed change will increase the requirements for engineering and construction, while decreasing the amount of transportation labour required. In addition, the Project creates an opportunity, which may go to a local contractor, to encase the below-grade structures with grout before constructing a concrete cap and engineered cover for the below-grade structure*" (p.6-578). As mentioned above, the implementation of the ISD approach is expected to alter the employment landscape, with a shift towards engineering and construction roles and a decline in opportunities in transportation and labour. It remains unclear how this transformation will align with Indigenous capacities and its potential impact on Indigenous employment prospects, as well as contracting and procurement. | The MMF requests that CNL provides breakdown of employment types and associated qualifications, while also presenting a blueprint of the procurement and contracting opportunities that will be accessible to the MMF. |
| MMF-23 | MMF | EIS Section 6.9.6.2.2: Secondary Pathways | In the EIS, CNL states "*In terms of fostering economic development in the region, CNL provides support for the Community Regeneration Partnership, which has been established to create a feasible socio-economic plan for the region, facilitate economic development and hopefully provide high-quality employment to replace the losses associated with the overall WL site closure*" (p.6-579). | The MMF requests to access and review the Community Regeneration Partnership to consider appropriate measures for mitigation of socio-economic impacts, and opportunities for Red River Métis citizens. |
| MMF-24 | MMF | EIS Section 4.2.4.2.2: Interests and Concerns, Monitoring and Control of the Proposed WR-1 Disposal Facility and the Decommissioning WL Site. | | In discussing the MMF's interests and concerns, CNL states that *"The Manitoba Métis Federation stressed the importance of ongoing monitoring and accountability for the WR-1"*, including concerns related to the necessity of maintenance and monitoring for 300 years, and that there is no guarantee for the future commitment of resources.<br><br>CNL then goes on to determine that *"CNL's view is that the steps CNL has taken adequately address this area of interest to the extent possible, pending the funding and implementation of the wildlife and environmental monitoring program initiative"* However, the MMF remains concerned that it is not clear how CNL will make commitments for the indefinite control phase of the project or in the post-closure phase after 2326. In the MMF's view, the funding and implementation of the wildlife and environmental monitoring program initiatives are critically important but do not adequately speak to the issue of accountability for the WR-1 site, if decommissioned in situ, for hundreds or thousands of years. |
| **Sagkeeng First Nation (SAFN)** | | | | |
| SAFN-01 | SAFN | Related to IR # 4 (round 1) | The original IR identified the lack of a "distinct discussion in the EIS of any effects on the health and socio-economic conditions of Aboriginal peoples resulting from a change to the environment" and that "…there are no valued components (VCs) related to Aboriginal health identified in either Section 6.7 Human and Ecological Health nor Section 6.9 Socio-Economic Environment of the EIS".<br>In CNL's IR Response (January 2023), CNL states, "…there are no predicted effects on the health and socio-economic condition of Indigenous peoples resulting from | Indigenous (including Anicinabe) groups have wellness frameworks that should have been used as a primary lens in the assessment to cover the above-mentioned concerns; however, CNL initially neglected this perspective and then approached it as secondary to CNL's settler-centered approach to community wellbeing. We appreciate that CNL has come a long way by working with Sagkeeng and we appreciate CNL's willingness to continue to learn from Sagkeeng; nevertheless, there has yet to be a real integration of this perspective in actual assessment processes and decision-making. We therefore strongly recommend that CNL address this gap by: |

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| | | | changes the project may cause to the environment and hence, discussion of effects on the health and socio-economic condition of Indigenous peoples are limited."<br><br>Sagkeeng strongly disagrees with this statement and the manner in which CNL came to that conclusion.<br><br>Sagkeeng has been clear throughout the EA process, including in our comments on draft EIS sections: impacts to health may result from the Project based on ongoing fear and stigma connected to the choices made by CNL to convert the facility from a temporary hazardous waste storage facility to a permanent hazardous waste disposal facility. Sagkeeng's studies show that this decision is likely to lead to potential impacts to Indigenous well-being as community members will experience ongoing barriers to use (fears to use the area due to potential risk and contamination), barriers to accessing country foods and food security, impacts to cultural use (hunting and harvesting), as well as ongoing barriers to fully heal the land (based on Sagkeeng's future end use goals), and Sagkeeng's relationship to the land (amongst others). CNL continues to dismiss Sagkeeng's request to approach Indigenous health and well-being from an Anicinabe and Indigenous world view; and limits the analysis to CNL's perspective on impacts to health and socio-economic conditions to "changes to the environment" as per the language of the outdated CEAA 2012.<br><br>In addition, the way that CNL continues to lump and assess Indigenous wellbeing with non-indigenous groups is highly problematic. Sagkeeng has been clear that this approach misses the likely impacts the Project will have on Indigenous community members and Indigenous determinants of health. To rectify this, Sagkeeng requested that CNL include an Indigenous definition to wellbeing, incorporate Indigenous determinants of health and wellbeing as well as other priorities (outlined in bulleted list below). To do this in a meaningful way, the EIS would incorporate these aspects into the assessment and give them equal weighting into the assessment process (including characterization of effects and their significance) as well as decision-making regarding the approach to decommissioning (including achieving Sagkeeng's Free, Prior and Informed Consent for the ISD approach). In short, the socio-economic and wellbeing impacts to Sagkeeng have yet to be properly assessed and fully incorporated into Project approvals. | 1. Indicating why the assessment of effects on Indigenous health and socio-economic conditions did not meaningfully integrate Sagkeeng's findings of likely adverse effects from the Project into its assessment;<br>2. Reassessing impacts on Indigenous health and socio-economic conditions in a collaborative fashion with the Indigenous peoples themselves; and<br>3. Fully and properly funding mental well-being measures.<br><br>If CNL has further information about its commitment to support Sagkeeng in Healing and Resilience Action planning, we encourage CNL to provide that information in its response. |
| SAFN-02 | SAFN | Related to IR # 28 (round 1) | CNL suggests in the revised draft EIS that "Indigenous engagement was an important aspect of the decision-making" (PDF pg. 2-16) and that it came to its conclusion in support of ISD "In consideration of all factors including Indigenous engagement" (PDF pg. 2-57). This does not seem to be borne out in fact. CNL refers to provision of a summary of alternative means being considered at open houses and community meetings; this is obviously inadequate to justify the statement above. In addition, CNL has chosen to ignore reasonable requests for revisions to the way that the Alternative Means Assessment was conducted. Sagkeeng has since 2018 called for joint reconsideration of alternative means with CNL and has been rebuffed in every instance. Despite CNL funding Sagkeeng to conduct its own Alternative Means Assessment, Sagkeeng sees no evidence that CNL integrated the values, weighting, or findings identified by Sagkeeng in its Alternative Means Assessment into revisions to | CNL is requested to justify with actual evidence its assertion that Indigenous engagement was an important aspect of the decision-making, including identifying all aspects of the CNL AMA that were adjusted as a result of inputs from Indigenous Nations. |

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| | | | the Alternative Means Assessment identified in Section 2 of the EIS. Instead, Section 2 suggest that inputs from Indigenous Nations were treated as purely refusable advice with no chance of causing a change in preference by CNL.<br><br>In reality, Sagkeeng's inputs on the AMA cannot be characterized as being considered IN the Proponent's AMA; they were only considered AGAINST the proponent's AMA. There is no evidence that the Proponent has ever considered either altering its preferred decommissioning method or setting up a process whereby collaborative efforts between CNL and one or more Indigenous groups could try to find a mutually agreeable decommissioning approach. So the spirit and intent of this IR is not meaningfully responded to, as Indigenous inputs have never really been considered IN the Proponent's alternative means assessment. | |
| SAFN-03 | SAFN | Related to IR # 54 (round 1) | A. In general, CNL does a reasonable job of not asserting whether there will be impacts on Sagkeeng rights or not, with the following exception. At Section 2.8.5.4, pg. 2-77, CNL states that "While we defer to the Crown on the matter of rights assessment, CNL is unaware that any alternatives increase or decrease potential impacts on Indigenous rights such as hunting, fishing, gathering and ceremony." CNL presents no evidence to support what is in effect an assertion that there could not be impacts on Sagkeeng rights under any of the four potential alternative means. Such a statement is both unsupported and on the face of it unrealistic. Is CNL suggesting that full removal of the WR-1 radiological inventory and a future with WR-1 meeting radiological release limits would not increase the likelihood of meaningful future access to and trust in the WR-1 site? CNL's initial statement that such determinations should be deferred to the Crown is partially correct; this determination needs to be made by the Crown and the impacted Indigenous group(s). CNL making casual, broad and unsupported assertions re: impacts on rights, whether direct or indirect, is not appropriate.<br><br>B. We note that Sagkeeng identified in its Alternative Means Assessment (2020) that ISD is likely to have differential (worse) adverse impacts on Sagkeeng Aboriginal/Treaty rights. Sagkeeng notes that no reference is made in Table 2.5.1-1, at pg. 2-18, of criteria considered in CNL's Alternative Means Assessment to impacts on constitutionally protected Aboriginal and Treaty rights, despite their obvious importance and the fact that Sagkeeng provided this as an additional criterion for consideration in its independent Alternative Means Assessment a couple of years ago. | A. CNL is requested to remove the above-noted statement from Section 2.8.5.4.<br>B. CNL is requested to identify why it did not integrate consideration of effects on Aboriginal and Treaty rights into its alternative means assessment criteria.<br>C. CNL is requested to update its Alternative Means Assessment, in collaboration with impacted Indigenous groups, to include consideration of Aboriginal and Treaty rights as a weighted criterion. |
| SAFN-04 | SAFN | Related to IR # 125 (round 1) | CNL has expanded its description of historical and present-day traditional land use, in subsection 6.8.1.5.2.2. CNL notes that it gathered, updated and validated information from the TKLUOS, the Psychosocial Impact Assessment and the Alternatives Means Assessments drafted by Sagkeeng, into this version of the EIS. Further, CNL added the following: "CNL has supported the carrying out of these studies to assist in better understanding modern and traditional land and resource use near the WL site and Aboriginal and Treaty rights matters. The results of these studies informed the five column interests and concerns table for each Nation (see Appendix A) and list of valued components." It is however not clear from its response or from the EIS | A. CNL is requested to identify whether its interpretation of effects on CULRTP differs from that of Sagkeeng and if so, justify why CNL's estimation of effects should be credited over that of the rights holding traditional users themselves.<br>B. CNL is requested to revisit the characterization of impacts on Sagkeeng CULRTP through direct engagement with Sagkeeng, and report back to the Commission.<br>C. CNL is requested to engage with Sagkeeng on mitigation, monitoring/follow-up/adaptive management issues related to CULRTP/TLRU, and report back to the Commission.<br><br>*Sagkeeng notes that the FPRT did not raise a specific IRs about the approach taken by the Proponent* |

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| | | | whether CNL has taken into meaningful consideration TKLUOS and other study findings related to:<br>a. Sagkeeng's desired future use of the Project-affected area;<br>b. factors influencing alienation and loss of use and how they are related to the WR-1 facility, now and into the future in the Project Case;<br>c. Sagkeeng statements about the impacts likely in the Project case on Current Use of Lands and Resources for Traditional Purposes (CULRTP)[13], and<br>d. what Sagkeeng members want to see done to reduce impacts on traditional use and occupancy.<br>In addition, in its response to this IR, CNL does not state that the Traditional Knowledge provided by Sagkeeng informed the effects characterization and significance determination processes. To Sagkeeng, this reads as though Sagkeeng helped refine what should be assessed, but did not actually inform the assessment itself; CNL did that on its own. This is confirmed through a reading of the EIS, within which CNL chose to conduct its own independent and solo assessment of effects on CULRTP. Again, Sagkeeng has to reiterate that while CNL has asked Sagkeeng about traditional use activities in proximity to WR-1/WL (not CRL, which we understand to be the Chalk River Laboratories in Ontario), CNL has chosen to ignore inputs from Sagkeeng about the likelihood of impacts from its proposed ISD Project on those same activities. Divorcing the people impacted from the assessment of impacts is not good impact assessment practice.<br>Sagkeeng notes that in previous comments to the Proponent on Section 6.8 of the revised draft EIS provided in April 2022, Sagkeeng requested the following: "the Proponent needs to work with Sagkeeng to identify impact pathways, and develop mitigation and monitoring/follow-up/adaptive management. This should occur in concert with working with Sagkeeng on identifying valued components, the spatial and temporal boundaries over which effects will be studies, and how impacts will be 'measured', i.e., the indicators, measurable parameters to be used. Thresholds of acceptable change, as measured by the affected Indigenous groups themselves, should also be developed as part of this work". We note that these discussions have not ensued in the interim. | *in its assessment of effects on TLRU in their first round(s) of IRs. Sagkeeng's fundamental concerns with the approach taken to the assessment of effects on TLRU have been raised with the Proponent and in comments on prior drafts of the EIS and are summarized in materials above and below this table. Because of these failings, Sagkeeng remains very concerned that the effects characterization and significance estimation provided in the revised draft EIS is not defensible and should not be relied upon by the CNSC in its deliberations on this matter.* |
| SAFN-05 | SAFN | Related to IR # 169 (round 1) | | CNL has included Indigenous receptors; however, CNL's approach to health impact assessment remains flawed (see comment SAFN-06), as it should not be limited to radiological exposure, which is only one element in Indigenous determinants of health. |
| SAFN-06 | SAFN | Related to # 172 (round 1) | Sagkeeng acknowledges that CNL has assessed medicinal plants (weekay and cedar) separately from berries in the Environmental Risk Assessment (ERA).<br><br>Sagkeeng continues to take issue with CNL's insinuation in its response that because certain items (like wild rice) do not grow "in close proximity to WR-1", that somehow this means that there is no pathway of impact on the harvesting of that species by | CNL to identify whether it has engaged Sagkeeng on the question of how far out from the WR-1 site Sagkeeng members now and in the future do and will avoid harvesting of fish, game, water and plant materials.<br><br>If this has not occurred, CNL should identify why not and withdraw any insinuations about the absence of pathways of effect from WR-1 for harvested species by Sagkeeng. |

[13] The terms CULRTP (language from impact assessment legislation) and traditional land and resource use (TLRU) as used in the EIS, are treated as the same by Sagkeeng throughout this submission.

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| | | | Sagkeeng members as a result of the WR-1 facility, now and into the future. When considering how members constrain and/or change behaviour due to fear of contamination, the alienation zones may extend/radiate out farther than the LSA as defined by CNL. It is therefore possible that wild rice, berry and medicinal plant alienation zones as a direct result of the presence of radioactive materials in WR-1 may extend to the nearest locations where those materials are available. To our knowledge, CNL has not engaged Sagkeeng on the question of how far this alienation and loss of use "zone of influence" radiates out from the facility. | |
| SAFN-07 | SAFN | Related to # 178 (round 1) | While CNL has incorporated some of Sagkeeng's requests here, the key issue remains that CNL continues to put the psychosocial impacts of the project as secondary to the biophysical, and that CNL has yet to properly assess this issue from an Indigenous perspective (see IR #4 above).<br><br>The potential psychosocial and mental health impacts from the Project (and the choice for ISD in particular) are real and have been communicated by Sagkeeng from the beginning, circa 2018. CNL indicates (Section 4.2.4.1.4.2; pgs. 4-45 and 4-46) that "CNL acknowledges and accepts the findings in the [Psychosocial Impact Assessment] report", and that the proposed In Situ Decommissioning "does not support optimum healing" of Sagkeeng members. CNL's stated acceptance of the findings of the PSIA is of questionable significance given that CNL is still asserting – in full opposition to the findings of the PSIA – that a future with ISD will not have significant adverse effects on Indigenous health and well-being. Sagkeeng has been clear (e.g., through the Narratives psychosocial impact assessment and ongoing communication) that a future with ISD actually reduces the viability of use of the site in the future for cultural activities and will be detrimental to Sagkeeng's goal for eventual reintegration of the site into the cultural landscape. Therefore, in addition to consumption effects, CNL must address the remaining gaps in the assessment of health impacts (e.g., "inability to harvest and consume"; fear and anxiety, and the associated physical manifestation of both; loss of culture; land alienation; reduced faith in and access to country foods, etc.).<br><br>Sagkeeng acknowledges that some of this is discussed in Section 6.9, but as discussed in IR #4, there are existing issues with CNL's approach including CNL's refusal to give equal attention and weighting to Indigenous – holistic – perspectives on health and well-being. Our understanding of health impact assessment is that the federal government sees the need to go beyond the traditional perspectives on contaminant-focused human health risk assessments to a more holistic understanding of potential risks on health; this would include Indigenous determinants of health, which are very much considered an aspect of medical health with respect to Indigenous communities (studies available upon request). As such, these issues have not been adequately assessed. | See request in comment SAFN-01. Additionally, Sagkeeng's position remains that human health impacts of all four technically and economically feasible alternatives need to be examined in more detail and compared to one another, prior to choosing a preferred alternative. |
| SAFN-08 | SAFN | Section 1.7.1 pg. 1-24; also Section 2.5.3; pg. 2-25 | The EIS suggests that CNL believes the ISD approach will allow CNL to adhere to the principle of "As low as reasonably achievable" (ALARA). In Section 2.5.3, CNL recognizes that the only way to meet a future end state where "radioactive contamination is not present at WR-1 above unrestricted clearance levels" is through full dismantling and removal of the WR-1 facility, which is not what is being | CNL is requested to remove any claims that ISD meets the ALARA principle in Section 2 and the entire EIS, as it demonstrably does not meet the ALARA principle. |

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| | | | proposed with ISD. Claims in the EIS that ISD will meet the ALARA principle are not credible in light of this discrepancy. We note that the alternative means assessment recognizes that full dismantling and removal is technically, economically and safely achievable so is therefore also "reasonably achievable" by definition. | |
| SAFN-09 | SAFN | Section 2.5.2.4, pg. 2-25; also Section 2.6.4.2.3, pg. 2-53; also Section 3.4.9.2, pg. 3-45 | In many places in the EIS, reference is made to the Institutional Control Period being assumed to be 100 years, with the Post-Institutional Control Period coming after that (on or around the year 2127). In this section, CNL states that "Socio-Economic Environment – Socio-economic effects were not evaluated for the post-institutional control period. This phase assumes that all knowledge and control of the site has been lost, so the site could not influence the actual or perceived socio-economic benefits or drawbacks." It is entirely unreasonable and not creditable to suggest that all knowledge and control of the site may be lost as soon as 2127. If this assumption arises automatically from the length of the Institutional Control Period, this suggests serious problems with an Institutional Control Period this short.<br><br>Sagkeeng notes that CNL recognizes – and Sagkeeng agrees - the CNSC has responsibility to determine when Institutional Control is no longer necessary, and that the period of Institutional Control may last longer than 100 years. It is important for Indigenous groups to have a say in this process as well.<br><br>In addition, the suggestion that each alternative would have similar (i.e,. no) socio-economic effects in the post-institutional control period (pg. 2-53) is not supported by any meaningful rationale. A future at the WR-1 site where all ILW is removed and the site's end state can return to radiological levels below unrestricted clearance limits may have substantially different Sagkeeng use and occupancy and psychosocial "footprints" at and around it versus a future where ILW is still buried underground and the site subject to restrictions. | CNL is requested to:<br><br>A. Provide an actual estimate of when "all knowledge and control of the site" will likely be lost in its proposed Project Case, with supporting evidence/rationale. This estimate may be relevant to the consideration of long-term impacts on people and to determining the length required for the Institutional Control Period.<br><br>B. Justify the Institutional Control Period of only 100 years used in the EIS in light of the estimation that after this Institutional Control Period is over, all knowledge and control of the site will be lost. 100 years is far too short a time for this to occur, if indeed it should ever be allowed to occur.<br><br>C. If CNL cannot justify the proposed Institutional Control Period being only 100 years, CNL should work with other parties to establish a more reasonable time frame for Institutional Control before the end of this assessment.<br><br>D. Adjust its Alternative Means Assessment to calculate socio-economic effects during the Post Institutional Control Period, using a precautionary approach that recognizes the potential for differential socio-economic effects between the four alternatives due to the presence or absence (or reduced amounts of) radiological waste at the WR-1 site. The absence of knowledge or control over the site during this time period does not exempt it from being subject to estimable socio-economic effects.<br><br>**Suggestion for mitigation and follow-up**: It may be necessary to comprehensively reconsider, in a multiparty forum, the length required for the Institutional Control Period for WR-1 in the Project Case, should it proceed. This is particularly the case given the lack of any precedent for this type of in situ decommissioning of a nuclear reactor in Canada.<br><br>In addition, Sagkeeng requests that CNL and the CNSC engage impacted Indigenous groups in a structured process to identify criteria that would be applied before the CNSC determines whether the decommissioned WR-1 facility is ready to move from an Institutional Control period to a Post-Institutional Control Period. Meeting these pre-set criteria should be more important than artificial timelines.<br><br>Sagkeeng further requests that (beyond the scope of this EA), this process be used for the entire Whiteshell Laboratories facility.<br><br>**CNSC Note: To be addressed through the licensing process and not part of the EA review** |
| SAFN-10 | SAFN | Section 3.3.3.1, pg. 3-22; other locations throughout the EIS (e.g., Figure 3.4.9-4 at PDF | In Table 3.3.3-1 and at many other places in the revised draft EIS, highly technical data is provided. This is for example evident in Section 6 assessment of effects on values such as surface water quality (especially Section 6.4.2). It would be impossible for a lay person to give credence to the finding at pg. 6-230 that "The potential groundwater seep is predicted to have a negligible residual effect on the Winnipeg | CNL is requested to provide plain language materials in an annex to the EIS or in revisions to the EIS body text, that identify radiological inventory and risk data and other technical data in a form that is understandable to non-experts. This is preferred in each of the Section 6 effects assessment sections, in particular. Things like measurable volume of materials, their radiological risk level, and how long they would remain a risk, are among the important contextual information to provide. In addition, |

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| | | pg.187 of 1428; throughout Section 6) | River surface water quality" as the process by which this determination was made is not understandable to non-technical reviewers, nor are there comparisons to natural background conditions or safe limits for surface water quality that are understandable to non-experts.<br><br>Sagkeeng appreciates technical rigour has a critical role in impact assessment but for communication to community members, these numbers mean nothing. It is important to provide some sort of plain language materials about things like radiological inventory and water quality estimates (non-exclusively) in the EIS. | information in plain language on predicted water quality impacts (non-exclusively) are critical for socializing the results of the EIS with Sagkeeng community members. |
| SAFN-11 | SAFN | Section 3.4.6.6, pg. 3-35 | CNL states "The grouted area will be fenced with signage as part of the institutional controls."<br><br>Having more information about the fencing and signage is material to Sagkeeng being able to estimate what the likely adverse impacts on traditional land and resource use and Indigenous health and well-being will be in the Project Case. | CNL is requested to provide more information on how long the fencing will be in place, what signage will say, how far away from the area will you see the fencing from, how long it will likely be in place, and what area will it cover. |
| SAFN-12 | SAFN | Section 3.4.8; pg. 3-36; see also 3.4.8.4 | CNL is discussing the transportation of hazardous materials. No mention is made of notifying or involving impacted Indigenous groups re: transportation of hazardous materials. Sagkeeng does not currently get informed by CNL of plans for importation or removal of hazardous wastes from or to the Whiteshell facility, which by definition requires transport across Sagkeeng's traditional territory. | CNL is requested to identify if it will, and if so how it will, inform Sagkeeng of any outgoing or incoming hazardous waste materials during decommissioning.<br><br>**Suggestions for mitigation and follow-up measures:** CNL to develop a meaningful Communications and Monitoring Plan with Indigenous peoples for the transport of hazardous wastes, within confines of radiological waste transport security conditions. |
| SAFN-13 | SAFN | Section 3.4.9; pg. 3-37; also Section 3.4.9.2; also Appendix 4.0-1, pgs. 19 and 23 | CNL is discussing the end state of the WR-1 facility after ISD in Section 3.4.9. In addition, Section 3.4.9.2 indicates that "CNL is developing the WL Closure Land-Use and End-State Plan, along with appropriate criteria for site remediation, including the WRDF associated with the ISD of WR-1."<br><br>It is not clear whether or how CNL and AECL have engaged impacted Indigenous groups in identification of preferred end states for WR-1 and other aspects of the Whiteshell facility. Sagkeeng understands from CNL that some sort of initial end state planning discussions are being planned for 2023, but notes that this is over five years after a switch from full removal to ISD (which have very different implications for end state limitations) was proposed by CNL and AECL. Sagkeeng suggests that a process to understand desired end state for the facility area is necessary <u>prior to</u> making irrevocable decisions re: decommissioning which may or may not allow those end states to be achieved.<br><br>Sagkeeng notes that Appendix 4.0-1 recognizes the issue of planning to be a remaining concern for Sagkeeng: "Sagkeeng notes that questions of Sagkeeng's role in planning and assessment of WR-1 and the WL site have yet to be addressed through concrete commitments by CNL or AECL."<br><br>The crux of the gap between the parties on this issue is identified well at pg. 23 of Appendix 4.0-1: "CNL will be engaging with Sagkeeng and other Indigenous Nations on end-state planning and future land use for the WL site. Sagkeeng has indicated that engaging in a workshop and "discussions" re: land use and the end-state of the | A. CNL is requested to identify if and if so how, it and AECL have engaged with impacted Indigenous groups re: end state planning for the WR-1 facility in particular, and the Whiteshell site in general.<br><br>B. If no desired end state planning with Indigenous peoples has occurred, CNL is requested to identify how it came to proposed ISD prior to this planning process being completed, knowing the implications that the creation of a permanent radiological waste disposal facility has for different desired end state options.<br><br>**Suggestions for mitigation and follow-up measures:** CNL and AECL should engage with impacted Indigenous groups in – and complete - an end state planning exercise <u>prior to</u> finalizing WR-1 decommissioning plans. Specifically, Sagkeeng should have been, and should be now, consulted by AECL and CNL re: the proposed WL Closure Land-Use and End-State Plan, prior to irrevocable decisions being made about what decommissioning plan should be activated for WR-1. |

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| | | | site, is not a commitment to collaborative development of end land use criteria, thresholds or participation in remediation and rehabilitation of the site." | |
| SAFN-14 | SAFN | Section 4.2.4.1.2, PDF pgs. 4-38 and 4-39; also Table 4.4-1, pg. 4-97; also Section 4.2.4.1.2, pg. 4-39<br><br>[see also comment SAFN-13 related to Section 3.4.9 above] | CNL indicates that Sagkeeng has expressed a desire to engage in end state planning. Sagkeeng's interest is in co-development of end state planning for WR-1 specifically and the Whiteshell Laboratories overall.<br><br>CNL's commitment to date is expressed in Table 4.4-1: "CNL is working in collaboration with AECL and will be engaging local communities to discuss and consider options for the future use of the WL site. A commitment by CNL to determine the future use of the WL site, including collaboration with local stakeholders has been added to the assessment."<br><br>Sagkeeng is not merely a "local stakeholder", it is a priority Constitutional rights holding First Nation, with an outstanding claim for unextinguished Aboriginal title to the land on which the WL site sites. And Sagkeeng sending representatives to a "community regeneration partnership" (as noted by CNL in Section 4.2.4.1.2) is not the level of engagement on end state planning Sagkeeng expects from CNL and AECL on a go-forward basis.<br><br>Sagkeeng is also highly concerned about not making irrevocable decisions about WR-1, which cannot meet unrestricted radiological clearance levels in the future, until such time as this end state planning process is completed. | CNL (with AECL as necessary) is requested to identify:<br><br>A. What it/they are committed to in terms of the level of collaborative decision-making about end state for WR-1 with impacted Indigenous groups, and any associated timeline; and<br><br>B. To clarify what constraints on end state options would be imposed if ISD of WR-1 is initiated prior to the completion of collaborative end state planning with impacted Indigenous groups.<br><br>**Suggestions for mitigation and follow-up measures:** CNL and AECL should engage with impacted Indigenous groups in – and complete - an end state planning exercise prior to finalizing WR-1 decommissioning plans. Specifically, Sagkeeng should have been, and should be now, consulted by AECL and CNL re: the proposed WL Closure Land-Use and End-State Plan, prior to irrevocable decisions being made about what decommissioning plan should be activated for WR-1. |
| SAFN-15 | SAFN | Section 6.1; also Section 4.3, pg. 4-90 | Section 6.1 describes the approach taken to effects assessment but does so without identifying who was involved. There is no clarification of who actually developed and conducted the pathway analysis and classification, mitigation identification, residual effects analysis, prediction confidence/uncertainty, or significance determinations.<br><br>In Section 4.3 at pg. 4-90, CNL states "Traditional knowledge was considered in the environmental assessment, including identification of VCs, defining spatial boundaries, description of the environment, and identification and evaluation of Project interactions, and participation in monitoring program." No mention is made of traditional knowledge and traditional knowledge holders -recognizing that traditional knowledge cannot be separated from its holders without losing meaning – being involved in the effects characterization process itself.<br><br>Sagkeeng has raised consistent concerns about the lack of integration of input from Sagkeeng studies in the EIS (all of which integrate traditional knowledge of Sagkeeng members) into the effects characterization process. This is highly problematic especially where there is traditional Anicinabe knowledge evidence of adverse effects on community health and traditional land use and occupancy, which is contrary to the western scientific findings that CNL has remained reliant on in its original draft and current draft EIS. | CNL is requested to identify:<br><br>A. who conducted the pathway analysis, mitigation identification, residual effects analysis and classification, prediction confidence/uncertainty, and significance determinations in the revised draft EIS; and<br><br>B. whether impacted Indigenous groups had any role in these processes. If impacted Indigenous groups had no role, CNL is requested to justify this choice and strongly recommended to revise it.<br><br>**Suggestions for mitigation and follow-up measures:** An appropriate follow-up measure would be to conduct a revised joint effects characterization process for those VCs where Sagkeeng's Anicinabe Knowledge and CNL's western scientific knowledge differ, specifically for traditional land and resource use and Indigenous health and well-being. |
| SAFN-16 | SAFN | Section 6.7, pg. 6-323 | CNL states that it "acknowledges that human health is more than just physical health" and professes to assess other elements of health in Sections 6.8.1 (Traditional Land and Resource Use) and 6.9 (Socio-economic environment). | CNL is requested to work with Sagkeeng to define an approach for a supplemental submission that will look at the full sum of effects on health, including separate consideration of Indigenous health, from all Project-related sources and in the Planned Development Case.<br><br>If CNL is not willing to do this, Sagkeeng calls for the CNSC to determine appropriate requirements for |

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| | | | Sagkeeng holds (and we understand that population health research also recognizes) that there are implications for physical health from impacts on culture, diet, stress levels, connectedness to land, waters and spirit, that should be accounted for in any consideration of impacts on "physical health". Separating Physical Health out as if it is only impacted in the Planned Development Case by changes in radiological and non-radiological emissions is an overly simplistic, and not scientifically defensible, approach to physical health impact assessment.<br><br>In addition, the socio-economic section does not adequately consider impacts to Indigenous determinants of health and well-being (including mental health) and therefore it is not adequate to push the discussion to that section. Sagkeeng see mental health as an aspect of overall human health and as such should be assessed in tandem with physical health. Nowhere in the EIS do the combinations of physical and mental health effects get properly characterized for their overall impacts on Indigenous health and well-being. | a supplemental holistic health impact assessment submission. |
| SAFN-17 | SAFN | Section 6.8.1 | Sagkeeng notes that the EIS remains devoid of a proper assessment of impacts on current use of lands and resources for traditional purposes (CULRTP). The absence of primary pathways of effect from the Project on traditional land and resource use is not a result of an actual likely absence of effects; it is instead a result of an inadequate assessment methodology. Acceptable practice of assessment on traditional land and resource use needs to focus on the observations and understandings of the people who actually practice the CULRTP, Indigenous peoples, not just the perceptions of impact assessment practitioners without a connection to the lands and resources that Indigenous peoples (in this case Sagkeeng members) have. The assessment continues to lack:<br><br>1. Any evidence of engagement of Indigenous peoples in the assessment of effects on their CULRTP;<br><br>2. Any evidence of verification by Indigenous peoples of the estimated effects on their CULRTP;<br><br>3. Evidence that Sagkeeng studies were adequately considered and Sagkeeng representatives involved in the identification of impact pathways;<br><br>4. Any credible evidence from CNL to contradict Indigenous "concerns" about impacts on CULRTP around the WL site in the Project Case (Sagkeeng has estimated adverse effects on long-term traditional land and resource use in the Project Case compared to a Base Case where the current plan of full removal is exercised);<br><br>5. Any recognition that the Project will extend the temporal scope of adverse effects on CULRTP from temporary to permanent;<br><br>6. Any recognition that the Project involves a physical transformation of the site from a temporary radioactive waste storage area to a permanent radioactive waste disposal facility, and no examination of the implications of this physical change;<br><br>7. The geographic scope of effects on "suitability" effects on CULRTP is too small; Sagkeeng has provided evidence it will go well beyond the physical footprint; | CNL is requested to address how it will in incorporate each of the 13 items listed at left into a revised assessment of effects on Sagkeeng traditional land and resource use.<br><br>If CNL is not willing to reassess with these considerations in mind, Sagkeeng calls on the CNSC to either:<br><br>A. require the Proponent to conduct this reassessment in collaboration with Sagkeeng; or<br><br>B. to reject CNL's findings in relation to traditional land and resource use as contrary to the findings of the impacted Indigenous peoples themselves and lacking adequate credibility/confidence.<br><br>**Suggestions for mitigation and follow-up measures:** The proper follow-up measure is to do the assessment in a proper fashion in collaboration with the impacted peoples themselves. This obviously has to occur prior to the completion of the environmental assessment and prior to CNSC decision-making. |

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| | | | 8. Any recognition of impacts on Anicinabe Pimatziwin and Sagkeeng spiritual and cultural connection to lands;<br><br>9. Any meaningful recognition of primary impact pathways associated with fear, stigma, and other psychosocial factors, even after CNL has claimed to recognize these impacts as valid in meetings with Sagkeeng;<br><br>10. Adequate examination of alienation and loss of use and associated loss of harvesting opportunity in a future with the Project including impacts on rights, Indigenous health and well-being as well as on TLRU.<br><br>11. Separation of impacts on a per Indigenous group basis (CULRTP effects will be felt differently by different groups);<br><br>12. Any reasonable explanation for why Sagkeeng's estimation that there will be adverse effects in the Project Case on traditional land and resource use has been ignored and contradicted by CNL's effects assessment; or<br><br>13. Any evidence to support the likelihood of success of proposed mitigation related to this Valued Component.<br><br>Sagkeeng has provided its positive evidence studies and previous comments to CNL to the effect of the above well in advance of CNL refiling its revised draft EIS. Despite this, these gaps remain. Until these gaps have been filled, the CULRTP assessment will remain inadequate and indefensible.<br><br>Absence of meaningful consideration in the impact assessment of fear and stigma associated with the retention of ILW and LLW in the ground under the Whiteshell Labs, and what effects that has on Sagkeeng willingness and therefore ability to practice their rights in the area at and around the facility, now and into the future, is highly problematic. This, despite Sagkeeng providing the only meaningful evidence of effects on population health, well-being, and traditional use through its three studies. The implications of these studies are effectively ignored in the impact assessment conducted by CNL, which has not altered in its findings from 2018 (when this evidence was not available) and 2022 (when they are available).<br><br>Statements by CNL such as "It is expected that all activities and land use adjacent to the site will be able to continue in the future as the Project will have no effect on land usage beyond the WL site boundaries" (pg. 9-14) cannot be credited and fly in the face of evidence of likely persistent alienation and loss of use directly stated by Sagkeeng members themselves in all three of Sagkeeng's studies provided to CNL during this environmental assessment. And CNL's estimations re: no adverse effects also fly in the face of CNL's recognition (at pg. 9-18 and others in the EIS) that "The change in the decommissioning strategy for WR-1 is understood from an Indigenous perspective as having the potential to result in fear, stigma and anxiety associated with the long-term presence of nuclear materials in the region." These "Indigenous perspectives" don't seem to have played a role in the impact assessment proper, given CNL's ultimate finding of an absence of effects on land usage "outside the fenceline. | |

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| | | | Sagkeeng is left with the conclusion that CNL is aware of and ultimately has chosen to ignore Sagkeeng's findings. | |
| SAFN-18 | SAFN | Section 6.8.1 | As has been stated by Sagkeeng several times in the past, there is a fatal flaw that plagues the assessment of CULRTP as drafted; it is the assumption that because Indigenous peoples have already been alienated from, shut out of, and subject to fear and stigma about the use of Whiteshell Labs and its surroundings, for the past 60 years, that the focus of the assessment should be on whether things can get worse than they currently are. Such an assessment based on a "damaged baseline", by definition, will inevitably find no significant adverse effects and indeed, in this case, CNL use this foundational assumption to find NO adverse effects pathways from the proposed Project on traditional land and resource use.<br><br>This finding is flawed on its face in the Project Case, which at its very essence would see a physical transition of the site from a temporary radioactive waste storage facility to a permanent radioactive waste disposal facility and extend access and willingness to use impacts into the long-distance (effectively permanent) future. These legitimate impact pathways need to be recognized as primary pathways and the assessment reconducted; the current findings are indefensible.<br><br>The temporal continuation of an existing adverse effect, caused by a physical change that occurs at the site through entombing the radioactive risk that contributed to the alienation in the first place, and the continued fencing off and inability for natural habitat regeneration to occur at a portion of the site, are obvious primary impact pathways that cannot be mitigated under the current In Situ Disposal proposal. The use of a "Base Case" tied to current damaged conditions rather than prior conditions or a desired condition set for decommissioning, effectively rigged the system for an inevitable (and disingenuous) finding of no adverse effects pathways. | The impact pathways identified by Sagkeeng must be recognized as primary pathways and the assessment reconducted as the current findings are indefensible.<br><br>**Suggestions for mitigation and follow-up measures:** As per above, the proper follow-up measure is to do the assessment in a proper fashion in collaboration with the impacted peoples themselves. This obviously has to occur prior to the completion of the environmental assessment and prior to CNSC decision-making. |
| SAFN-19 | SAFN | Section 6.8.1; also Table 4.4-1 at pg. 4-95 | In Table 4.4-1, CNL notes Indigenous "Concerns about the extent of Indigenous participation in the assessment of effects to traditional land and resource use (from the identification of pathways to the verification of results)."<br><br>In response, CNL indicates its assessment has been updated to include a summary of Indigenous community's conclusions about the potential effects of the Project, which has been summarized from the Traditional Knowledge and Land Use Studies.<br><br>CNL's response does nothing to address the fact that the actual impact assessment which the revised draft EIS relies on did not integrate indigenous perspectives. Instead, Indigenous perspectives and evidence are provided as an aside that was not integrated into the impact assessment proper in any demonstrable way. Simply stating and then ignoring evidence which contradicts the proponent's findings does not create confidence in the outcome.<br><br>As a result, the findings in relation to traditional land and resource use (and indigenous health and well-being) cannot be credited. | CNL is requested to re-engage Sagkeeng in a joint reconsideration of effects on traditional land and resource use and Indigenous health and well-being.<br><br>If CNL is not willing to reassess with these considerations in mind, Sagkeeng calls on the CNSC to require the Proponent to conduct this reassessment in collaboration with Sagkeeng or to reject CNL's findings in relation to traditional land and resource use and Indigenous health and well-being as contrary to the findings of the impacted Indigenous peoples themselves and lacking adequate credibility/confidence.<br><br>**Suggestions for mitigation and follow-up measures:** As per above, the proper follow-up measure is to do the assessment in a proper fashion in collaboration with the impacted peoples themselves. This obviously has to occur prior to the completion of the environmental assessment and prior to CNSC decision-making. |

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| SAFN-20 | SAFN | Table 6.8.1.2-1, pg. 6-429 | CNL's focus re: impacts on culture here and in Sections 6.8 and 6.9 in general is narrow both geographically - "within Project boundaries"; and thematically – with a focus on physical heritage resources, and this does not reflect Indigenous understandings and practices of culture. The Project Case can (and likely will, according to the positive evidence provided by Sagkeeng) have impacts on cultural reconnection timelines and depth as a result of leaving one of the primary causes of the original disconnection – the introduction of radioactive materials and now waste to the area – underground at the site. This can and likely will have impacts both at and beyond "project boundaries", as evidenced by the three studies completed by Sagkeeng, each of which touch on deeper cultural connections and practices and how ISD may impact on them. | CNL is requested to work with impacted Indigenous group to come to a more realistic, holistic understanding of the effects in the Project Case on Indigenous peoples, as understood by Indigenous peoples.<br><br>If CNL is not willing to reassess with these considerations in mind, Sagkeeng calls on the CNSC to require the Proponent to conduct this reassessment in collaboration with Sagkeeng or to reject CNL's findings in relation to traditional land and resource use and Indigenous health and well-being as contrary to the findings of the impacted Indigenous peoples themselves and lacking adequate credibility/confidence. |
| SAFN-21 | SAFN | Table 6.8.1.6-1 | Supportable confidence in mitigation success is key in conducting a defensible residual effects characterization.<br><br>In its pathways analysis table, a mitigation measure for Preparation for and implementation of Institutional Control is to implement an engagement plan supported by a community advisory committee with Sagkeeng to help address recommendations from the Psychosocial Impact Assessment report. We note that this form of mitigation is required regardless of what decommissioning strategy is implemented due to existing fear and stigma associated with the Whiteshell Laboratories. This mitigation has not been convincingly shown by CNL to be likely to substantially reduce alienation and loss of use in a Project Case – ISD - that would see changing the facility from a temporary radioactive waste storage area into a permanent radioactive waste disposal facility. The mitigation is also, according to the findings of the Psychosocial Impact Assessment, less likely to be effective in an ISD future than in a future with full removal.<br><br>Therefore, both the absolute and comparative success likelihood of this form of mitigation should be recognized as **low** in the Project Case unless additional evidence is provided. | CNL should provide further evidence of its confidence in the likelihood of success in all of its proposed mitigation measures for impacts to TLRU. Currently it is not clear what the likelihood of success is or, in some cases, which impact pathway is being addressed by which mitigation measure.<br><br>If the likely effectiveness of mitigation measures cannot be strengthened, the CNSC should closely consider this when making a determination of the significance of adverse effects on traditional land and resource use. |
| SAFN-22 | SAFN | Table 6.8.1.6-1, pg. 6-470 | The physical conversion of the WR-1 facility from a temporary radioactive waste storage facility to a permanent radioactive waste disposal facility, through physical works and activities associated with ISD, is not explicitly recognized as a project-related physical work and activity in this table. If this conversion was recognized, an additional impact pathway would need to be recognized - one of increasing the temporal scope of alienation and loss of use for Sagkeeng members of portions or all of the WL site, due to physical lack of access, the inability for natural environmental conditions to be recovered on the surface, maintenance of a visibly industrialized and stigmatized landscape, and continued fear and stigma associated with permanent radioactive waste disposal in a near surface underground chamber on Sagkeeng territory. This is clearly a Primary pathway due to both a temporal extension of an existing effect (into the long distant, possibly permanent future) and a physical change (grouting radioactive waste in, converting the facility to a permanent radioactive waste disposal facility). | CNL is requested to recognize the physical conversion of the WR-1 facility from a temporary radioactive waste storage facility to a permanent radioactive waste disposal facility as a "Project activity", and to assess – preferably with inputs from other parties – the impact pathway implications of this newly recognized "Project activity". |
| SAFN-23 | SAFN | Section 6.9 | The findings of the Psychosocial Impact Assessment (PSIA - Narratives 2020) calls for the following: | CNL is requested to identify what it is committed to doing to do in dealing with each of the psychosocial impacts identified in the Psychosocial Impact Assessment, with reference to all of the |

| Reference # | Subject Matter Expert (SME) | Reference to EIS | Context and Rationale | Comment to the Proponent |
|---|---|---|---|---|
| | | | 1. Building a Trauma-Informed Decision-Making Model specific to the project<br>2. Building a Trauma-Informed Engagement Plan with the community before any irreversible decisions are made<br>3. Building a Long-term Monitoring Program<br>4. Capacity and Access to Independent Expertise<br>5. [Provision of funding for increased programs to support Sagkeeng members'] Psychological Well Being<br><br>In the wake of the PSIA, CNL has recognized that psychosocial impacts are real and have the potential to negatively impact on Indigenous health and well-being, including impacts on traditional land and resource use.<br><br>Some of PSIA recommendations have been moved on by CNL, notably the support for Sagkeeng's Community Environmental Monitoring Program. The CNL commitment status related to other recommendations remains unknown at this time. | recommendations identified in that report, and with specific additional reference to Sagkeeng's requested Healing and Resiliency Action Plan.<br><br>**Suggestions for mitigation and follow-up measures:** CNL is requested to clarify all commitments it has made to deal with the psychosocial impacts identified in the PSIA. |
| SAFN-24 | SAFN | Section 6.9.5.2.6, pg. 6-560; also pg. 6-564; also Section 6.9.5.2.6.4, pg. 6-568 | CNL does not do an adequate job identifying values critical for Indigenous health and well-being, and as a result does not provide a robust baseline and trend-over-time condition analysis or an adequate impact assessment on all these determinants of health.<br><br>For example, the definition of community well-being and the federal Community Well-Being Index provided at pg. 6-564 differs from Sagkeeng's definitions and measures of community well-being, as better expressed in Sagkeeng's Psychosocial Impact Assessment (Narratives 2020), which should have been captured herein for the Indigenous community well-being indicators. The Community Well-Being Index is a colonial approach to calculating wellbeing that is not particularly helpful or insightful. While the components it identifies are important, there is much more to indigenous wellbeing than these components.<br><br>The definition of Indigenous health and Indigenous well-being is inadequate has not been properly adapted to capture Sagkeeng's understanding of what constitutes health and well-being. We note that in Section 6.8, CNL has identified at least three factors that contribute to well-being – being able to practice culture, medicines, and diet/food sovereignty, that are not reflected in section 6.9.<br><br>Section 6.9.5.2.6.4 also demonstrates that CNL has some understanding of Indigenous approaches to wellness and Indigenous determinants of health. However, the EIS in Section 6.9 does not demonstrate that it gave equal weighting to Indigenous perspectives on health versus Western ones. | CNL is recommended to work with Sagkeeng to define Indigenous health and Indigenous well-being and the most meaningful elements that need to be incorporated into a reassessment of effects on Indigenous health and well-being.<br><br>If CNL is not willing to reassess with these considerations in mind, Sagkeeng calls on the CNSC to require the Proponent to conduct this reassessment in collaboration with Sagkeeng or to reject CNL's findings in relation to Indigenous health and well-being as contrary to the findings of the impacted Indigenous peoples themselves and lacking adequate credibility/confidence. |