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To: Deep Geological Repository (DGR) for Canada's Used Nuclear Fuel Project
Reference Number 88774
Impact Assessment Agency of Canada
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From: Lac Des Mille Lacs First Nation

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RE: Feedback on Initial Project Description of a Designated Project

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PART I – INTRODUCTION

A. Purpose and Scope of the Submission

The Lac Des Mille Lacs First Nation (LDMLFN) submits these comments to the IAAC as feedback on the Initial Project Description (IPD) for the DGR for Canada's Used Nuclear Fuel Project, which is proposed to be located 107 kms from our community.

The IPD will inform IAAC's decision-making on identifying potentially affected Indigenous Nations, engagement planning, and the scope of the assessment, prior to the issuance of the Tailored Impact Statement Guidelines. As set out below, we are concerned that the IPD does not provide an adequate foundation for these purposes with respect to LDMLFN and should be amended or supplemented before the assessment framework is finalized.

Briefly, the DGR project would involve the storage of nearly 5.9 million waste fuel bundles 500 meters below the surface in the Canadian Shield, spanning 1,500 hectares. At a minimum, IAAC must require the proponent to amend or supplement the Initial Project Description to accurately reflect Nation-specific pathways of effect for LDMLFN, as well as the full engagement record, including the previously developed Framework Agreement intended to guide consultation, Impact Assessment participation, accommodation, and related economic and governance discussions. The IAAC should further confirm that screening-level conclusions in the IPD do not apply to LDMLFN and cannot be relied upon for scoping or significance determinations until this information is provided and Nation-specific engagement meaningfully informs the assessment framework.

LDMLFN submits that the Initial Project Description must be amended and supplemented before the Impact Assessment proceeds, and that Nation-specific consultation and analysis must inform the assessment framework. Until this occurs, the IPD cannot be relied upon for scoping, screening, or significance determinations.

B. Preliminary Issue with Consultation in the IAA Process

As a preliminary matter, we note that the consultation and accommodation in this comment period does not align or live up to our expectation of what would be required to uphold the Honour of the Crown or to achieve the goals of reconciliation. We have more to say about consultation and accommodation below in our comments on the project development so far. However, this 30-day comment period, arbitrarily set without consulting us, infringes our right to meaningful consultation on the start of a process outlined in a detailed,

1233-page technical document. We only received this document for review for the first time on **January 6, 2026**. In this limited time, we have not been able to secure the assistance we need to conduct a technical review to the standard we require. Accordingly, we are providing these initial comments, which we trust you will accept and consider without reservation, in support of our right to meaningful consultation and engagement.

C. Who and Where is the Lac Des Mille Lacs First Nation

LDMLFN is also known by its Ojibwe name, Nezaadiikaang, meaning “Place of the Poplars.” The Nation has two reserve sites in proximity to the Project: Reserve No. 22A1, located on the northeast shore of Lac des Mille Lacs, and Reserve No. 22A2, situated at the junction of the Seine and Firesteel Rivers. Reserve No. 22A2 is approximately 107 kilometres east-southeast of the proposed Deep Geological Repository. Importantly, the transportation of used nuclear fuel would occur directly through LDMLFN’s traditional territory via a single-lane, undivided highway and adjacent rail corridor. LDMLFN owns property immediately adjacent to both the highway and the railway, which has been used for many years as a primary access point to the lake, for community accommodations, and for cultural and gathering events, including the Nation’s annual powwow, which attracts hundreds of participants and visitors.

It is also important to note that we are the only identified proximate community bearing this direct risk of transporting the waste of this magnitude. The other communities are located away from this primary shipping corridor and are located to the west, north and south of the proposed DGR. As a result, it is our position that the Crown’s duty to consult falls at the highest end of the legal spectrum. Despite the deep consultation that we should have afforded us we regret to inform you that the process to date has been procedurally and substantively inadequate and flawed. Specifically, our First Nation has been denied the early engagement afforded to "host" communities, including consultation on this draft IPD. While we acknowledge that there has been some consultation on this project, LDMLFN respectfully submits that the consultation record should be reviewed with this position in mind.

D. Proximity Is Not the Sole Measure of Potential Effects

Characterizing potential effects based primarily on proximity to the proposed repository site is overly narrow and does not reflect how impacts from a project of this nature may occur. The Initial Project Description itself identifies multiple pathways of effect, including transportation of used nuclear fuel, accidents and malfunctions, groundwater and surface water movement, cumulative effects, and long-term post-closure uncertainty that extend well beyond the immediate site boundary.

These pathways engage Indigenous rights and interests on a regional scale and are not confined to the host community. As a result, the potential effects on LDMLFN cannot be discounted based on distance alone, and reliance on proximity as the primary screening criterion is inconsistent with a rights-based impact assessment approach.

Furthermore, the proponent’s reliance on a two-tiered consent mode, which seeks consent from the host community while excluding us, is inconsistent with the jurisprudence and minimizes the catastrophic risks we may face without evidentiary support. LDMLFN should have to give our consent to this project before it proceeds to construction just like the host communities.

PART II – ISSUES WITH CONSULTATION

A. Legal Framework: The Source of the Duty to Consult

The duty to consult arises from the honour of the Crown and is a constitutional imperative under s. 35 of the Constitution Act, 1982. The duty is triggered when the Crown has knowledge, real or constructive, of the potential existence of an Aboriginal right or title and contemplates conduct that might adversely affect it. The Crown must act with honour and integrity, avoiding even the appearance of "sharp dealing".

B. Scope of the Duty: The Highest End of the Spectrum

The scope of the duty to consult is proportionate to the strength of the Aboriginal right and the seriousness of the potentially adverse effect.

1. Seriousness of Potential Adverse Effect: Catastrophic Risk

The Supreme Court has recognized that the duty to consult must protect against "irreversible effects" that are not in keeping with the honour of the Crown. Where the risk of non-compensable damage is high, like in the case of a severe nuclear disaster, deep consultation is required. LDMLFN submits that a nuclear repository presents a risk of permanent harm to the environment that exceed any other standard or routine industrial projects. For this project, the risks are very high as the proposal is not to build the underground storage facility first and then place the waste in. Rather, the plan is to construct and fill as they go. For example, LDMLFN is concerned by the potential for extreme risk of accidents beneath the surface, as there will be blasting occurring while materials are brought in. LDMLFN further anticipates that there are other risks aside from the blasting which we will need to fully understand and appreciate, and plan for, before construction should begin.

2. Transportation and "Derivative Impacts"

As referenced above, the potential for adverse impact extends to the transportation corridors cutting through our Territory. The transport of 5.9 million nuclear fuel bundles introduces a risk of catastrophic contamination that constitutes a severe derivative impact. The IPD notes that hauling of the materials will occur over many years and will average two truck loads of waste material each day. Despite this, the NWMO has taken a very narrow view of the project and has specifically rejected the responsibility to study and examine the transport of the waste materials along this corridor.

3. Improper Distinction Between "Host" and "Other Impacted" Communities

The NWMO proposes a model requiring the consent of the "host" community, but not the consent of LDMLFN. This distinction is legally flawed because it artificially limits the assessment of "adverse impacts" to the immediate site footprint, ignoring the transboundary nature of nuclear contamination. The duty to consult is triggered by the potential for adverse effects, not the NWMO's limited scoping on the site:

- **Transportation Impacts:** As noted, our community bears the primary burden of transport risks.
- **Site Incident Impacts:** While the repository is 107km away, the unique nature of the material means that a major accident or containment failure at the site would not be site-specific to the host community area. Radiation and nuclear contamination would expand much greater than the immediate site through air, water, or other means. Similarly, the potential for a radioactive release at the repository site poses a direct threat to the flora, fauna, and waterways within our Territory, regardless of the 107 km distance.

The Crown cannot infer that the impacts are less severe for our community without concrete evidence, as the catastrophic nature of a nuclear incident renders the "host" vs. "non-host" distinction meaningless in the event of failure.

C. Procedural Flaws and Required Content of Consultation

1. Failure to Consult on Strategic Planning or IPD

Meaningful consultation must occur during strategic planning, not just after a plan is finalized. The Supreme Court of Canada has held that the duty to consult arises when the Crown "contemplates conduct" that might affect rights, not merely when a final decision is made. In this case, no explicit attempt has been made to consult our First Nation on drafts of the IPD before it was submitted to you. We were not aware that the NWMO was conducting in-depth consultations with the host communities in

the IPD. We only learned about this after reading the submissions. When LDMLFN met with delegates from the IAAC in December, we informed you that LDMLFN had not been consulted on the IPD at any point by that time and expressed our concern when you advised that the IAAC expected the NWMO to consult with us on it. By excluding us from the drafting and preparation phase, the Crown and proponent have treated the project parameters as a *fait accompli*. Consultation that excludes from the outset accommodation or input into the design is meaningless and does not discharge the duty on the Crown.

2. Meaningful Process and the "Honour of the Crown"

Consultation must be more than an opportunity for the First Nation to "blow off steam" and requires a genuine intention to substantially address our concerns. When a proponent creates expectations for a specific process and then abandons them without explanation, it undermines the reconciliation process. By engaging deeply with the host community while excluding our community from the same procedural safeguards, the Crown is failing to act honourably. The IPD does not acknowledge that NWMO previously funded LDMLFN to develop a Framework Agreement intended to support Impact Assessment participation. This omission materially understates the extent of prior engagement and reinforces the impression that LDMLFN's interests are minimal. After limited consideration, the NWMO decided it was not prepared to enter into the Framework Agreement. After selecting the Ignace site, they did not follow up with any meaningful or explicit engagement. In fact, the NWMO has provided us with very little information, as further described in these submissions.

3. Capacity Funding and Technical Review

Given the highly technical nature of deep geologic nuclear storage, meaningful consultation is impossible without adequate resources. The Crown must ensure the First Nation can participate meaningfully. The Crown cannot shift the onus to the First Nation to provide technical data without providing the resources to generate that data. Funding offered by the IACC and NWMO to date is inadequate, does not reflect the immensity of the undertaking, and should be sized appropriately.

D. The Duty to Accommodate

1. Concrete Mitigation and the Duty of Caution

Accommodation requires balancing Aboriginal concerns reasonably with the decision's impact. Similarly, the accommodation here must include concrete, legally binding protections against the specific transportation and contamination risks we identify. In the case of the host community, they were afforded the opportunity to conduct an assessment with their own process. LDMLFN only learned of this by reading the IPD submission. LDMLFN maintains that we should be afforded this same procedural opportunity for the reason noted in these submissions.

2. Consent

The Crown has a legal duty to consult and, where appropriate, accommodate Indigenous rights, and must make meaningful, good-faith efforts to understand and address potential impacts before proceeding with any decision. The NWMO has granted a consent requirement to the host community. By denying this same standard to the LDMLFN community, despite the existential risks posed by transport and potential site failures spreading via air and water, the Crown is acting arbitrarily. If the risk of irreversible catastrophic harm cannot be mitigated to a level acceptable to the First Nation, the honour of the Crown should prevent the project from proceeding without our consent.

E. Conclusion on the Consultation Issue

The IAAC is tasked with assessing a project of a scale and magnitude and potential for catastrophic harms that is unprecedented in Canada and around the world. The IAAC must proceed cautiously and ensure that you get this right, including fully discharging of the duty to consult. Given that we have not been afforded the

deep consultation on the substance of the information contained in the IPD, which we should have been afforded, LDMLFN respectfully requests that the IPD not proceed any further until that consultation occurs. Only after such consultation will LDMLFN be in a position to provide meaningful comments on the IPD as presented, particularly since the proposed storage and transport of nuclear waste presents a unique, existential threat to the Nation.

Based on the jurisprudence:

- **The Duty is Triggered.** The potential for adverse impact is clear. The Crown cannot rely on the proponent's arbitrary distinction between "host" and "affected" communities to lower the standard of consultation, particularly given the capacity for nuclear incidents to spread beyond the host site via air and water.
- **Procedural Fairness was Breached.** The failure to consult on the draft project description prior to submission violated the requirement to consult at the strategic planning stage.
- **The Scope is High.** The potential for irreversible, catastrophic harm necessitates "deep consultation".
- **Accommodation.** The Crown must demonstrate that the project can coexist with our constitutionally protected rights.

LDMLFN respectfully submits that the current process is deficient and requires an immediate reset to provide our First Nation with the same substantive and procedural consideration afforded to the host community.

PART III – OTHER SUBSTANTIVE ISSUES AND RECOMMENDATIONS

1. Amending the Project Description Area

The characterization of potential effects based primarily on proximity to the proposed repository site is overly narrow and does not reflect how impacts from a project of this nature may occur. The IPD itself identifies multiple pathways of effect—including transportation of used nuclear fuel, accidents and malfunctions, groundwater and surface water movement, cumulative effects, and long-term post-closure uncertainty—that extend well beyond the immediate site boundary. These pathways engage with Indigenous rights and interests at regional and interregional scales and are not confined to the host community. As a result, the potential for effects on LDMLFN cannot be discounted based on distance alone, and reliance on proximity as the primary screening criterion is inconsistent with a rights-based impact assessment approach.

LDMLFN submits that the study area must be expanded to include the transportation corridor study area, which should extend to Thunder Bay, and that this area should be included in the project description.

Therefore, LDMLFN recommends that the Initial Project Description be amended to expand the project study area to include transportation corridors, watersheds, and downstream interconnected ecological systems extending to Thunder Bay, and to reflect Nation-specific pathways of effect.

2. Major Accidents and Catastrophic Events

The IPD must disclose the reasonably foreseeable consequences of major accident scenarios, including blast events, structural failures, transportation collisions, fire, flooding, and long-term containment degradation, and identify how these risks would be managed, mitigated, and communicated to affected Nations.

Therefore, LDMLFN recommends that the IPD be amended to include a detailed, publicly accessible analysis of major accident and catastrophic failure scenarios, including underground explosions, containment breaches, transportation incidents, and long-term system failures, together with corresponding mitigation

and response measures.

3. Site Selection and Process Consideration

LDMLFN recommends that IAAC require a comprehensive, independent review of the site selection process, including financial inducements, information disclosure practices, consent mechanisms, and governance arrangements, and that deficiencies be remedied before further regulatory approval is considered.

4. Integrity and Fairness of the Site Selection Process

LDMLFN has serious concerns about the integrity, fairness, and transparency of the site-selection process that identified the two favoured sites for the proposed long-term nuclear waste storage facility. With reference to the NWMO filing, the process appears to have been shaped not only by technical and environmental considerations, but also by uneven economic incentives, preferential information-sharing practices, and an absence of effective external oversight. Taken together, these factors raise fundamental questions about procedural fairness, informed decision-making, and alignment with the principles of reconciliation and free, prior, and informed consent.

5. Disproportionate Financial Commitments and Process Imbalance

LDMLFN is particularly concerned by the scale and concentration of financial expenditures directed toward a single Indigenous community and a single host municipality during the site selection phase. The magnitude of these expenditures far exceeds what is reasonably required to support neutral engagement or capacity building and appears to have been a decisive factor in securing local acquiescence. Other potentially affected Indigenous Nations, including LDMLFN, were not provided with comparable financial resources to independently assess risks, retain expert advisors, or conduct Indigenous-led studies during the same critical decision-making window.

LDMLFN is concerned that this imbalance materially distorted the site selection process. When one community is heavily resourced while others are not, the resulting expressions of support cannot reasonably be interpreted as the product of an equitable or representative process. Rather, they reflect asymmetries in bargaining power and capacity that are incompatible with principled, rights-based decision-making for a project of permanent and intergenerational consequence.

6. Preferential Disclosure and Unequal Access to Information

LDMLFN is concerned that preferential disclosure practices were employed during the site selection process. One First Nation reportedly received advance access to key project materials, including attachments later submitted as part of the regulatory filing, while other potentially affected Nations were not afforded the same opportunity or timeline for review. Unequal access to information undermines the credibility of any claim that support was informed, comparable, or freely given.

In the context of a project involving long-term containment of hazardous materials, informed participation requires that all affected rights-holders have access to the same information at the same time. Selective or staged disclosure compromises transparency, erodes trust, and further reinforces the perception that outcomes were shaped through preferential treatment rather than through an objective and fair assessment of risks and alternatives.

7. Economic Inducement and the Validity of Consent

The combination of substantial early financial commitments and preferential information access creates a serious risk that economic inducement, whether intentional or not, played a material role in shaping site selection outcomes. Where significant payments are offered prior to the completion of a full environmental assessment and before regional or watershed-level consensus is achieved, there is a heightened danger that short-term economic considerations will outweigh long-term environmental, cultural, and intergenerational risks.

LDMLFN submits that inducement-based acquiescence is fundamentally incompatible with the concept of free, prior, and informed consent. This concern is amplified by the irreversible nature of the project and the fact that the risks associated with long-term nuclear waste storage will persist well beyond the lifespan of any compensation agreement, governing body, or financial arrangement currently contemplated.

8. Ongoing Consent and Withdrawal Mechanisms

LDMLFN submits that valid consent for a project of this permanence cannot be treated as a one-time event. Meaningful consent requires mechanisms for periodic review, renegotiation, and withdrawal based on evolving information, community priorities, and risk assessments.

The current framework does not identify any clear process through which affected Nations may revisit or revoke consent in response to emerging safety concerns, governance failures, or material changes to project design. Nor does it establish thresholds that would trigger renewed consent processes. Without enforceable withdrawal and renegotiation rights, consent risks becoming procedural rather than substantive, undermining its legitimacy.

9. Fragmentation of Indigenous Nations and Regional Decision-Making

LDMLFN is also concerned that the site selection process relied heavily on bilateral arrangements with individual communities rather than a coordinated, regionally coherent engagement framework. This approach risks fragmenting Indigenous Nations with shared territories, watersheds, and cultural connections and may undermine the legitimacy of claims that the site selection outcome reflects broader Indigenous acceptance.

For projects of this scale and permanence, engagement that isolates individual communities and rewards early agreement creates structural incentives for division rather than collective deliberation. Such an approach is inconsistent with reconciliation principles and with best practices for infrastructure projects that pose regional and transboundary risks.

10. Scale of NWMO Financial Capacity and the Need for Robust Oversight

LDMLFN notes that the Nuclear Waste Management Organization is entrusted with an endowment reportedly approaching **\$30 billion**, accumulated for the express purpose of managing nuclear waste safely over the long term. The existence of such substantial capital underscores the gravity of NWMO's responsibilities and the importance of rigorous oversight. It should not, however, be interpreted as justification for deference or unchecked discretion.

To the contrary, the scale of financial resources available to NWMO heightens the need for strong regulatory scrutiny. Access to vast capital creates the capacity to influence outcomes through spending decisions, selective funding, and differential engagement practices. Where such practices have already resulted in demonstrably uneven treatment of affected communities during site selection, regulators must ask whether appropriate safeguards, transparency requirements, and accountability mechanisms are in place.

11. Institutional Continuity and Governance Risk

LDMLFN is concerned that long-term nuclear waste management is highly vulnerable to institutional failure, governance erosion, and regulatory capture over extended timeframes. Staff turnover, political interference, shifting policy priorities, budget constraints, and privatization pressures can materially weaken safety systems that were initially designed with high standards.

Historical experience demonstrates that many large-scale infrastructure failures arise not from technical deficiencies, but from gradual deterioration in governance and oversight capacity. The assessment must therefore address how institutional integrity will be preserved over multiple generations.

Absent credible safeguards against governance failure, assurances regarding long-term safety remain speculative.

12. Absence of Adequate Oversight and Implications for Regulatory Approval

LDMLFN is concerned that the NWMO process to date reflects a lack of effective independent oversight over both spending decisions and engagement practices. The regulator should not assume that internal governance structures or stated intentions are sufficient to ensure fairness, particularly given the unsatisfactory decision-making during the site selection phase.

Without clear regulatory standards governing engagement equity, information disclosure, and the use of financial resources, there is a significant risk that future phases of the project will replicate or deepen existing deficiencies. LDMLFN submits that regulatory approval should not proceed unless and until robust oversight mechanisms are established to ensure that NWMO's financial capacity is exercised transparently, equitably, and in a manner consistent with constitutional obligations and international standards.

D. Environmental Considerations

LDMLFN recommends expanding the environmental assessment framework to address regional watershed systems, transportation corridors, emergency response capacity, long-term safety horizons, climate change impacts, cumulative effects, and Indigenous-led monitoring and governance.

1. Geographic, Watershed, and Assessment Zone Scope

LDMLFN submits that the geographic scope of the environmental assessment, including the definition of the site-related assessment zone, is fundamentally inadequate given the nature, scale, and hazard profile of long-term nuclear waste storage. The proposed undertaking cannot reasonably be confined to a narrowly defined repository footprint or immediate host area. Deep geological storage of used nuclear fuel presents risks that extend spatially through interconnected groundwater systems, surface waters, and ecological pathways, as well as through transportation corridors that span hundreds of kilometres.

In LDMLFN's view, the site-related assessment zone must be substantially enlarged to reflect the realistic pathways through which adverse effects could occur. This includes not only the immediate repository site, but also downstream watersheds, aquifers, and lands that could be affected in the event of containment failure, groundwater migration, seismic disturbance, or long-term degradation of engineered barriers. Northern Ontario's hydrological systems are highly interconnected, and radionuclide migration through fractured bedrock and groundwater flow paths cannot be assumed to remain confined within administratively convenient boundaries.

The need for a broader assessment zone is reinforced by international experience. In Finland, during the permitting and licensing of the Onkalo deep geological repository, regulators required extensive characterization of bedrock, groundwater flow systems, fracture networks, and long-range radionuclide transport pathways well beyond the immediate facility footprint. The Finnish process recognized that long-term safety assessments must consider impacts at a regional scale, including potential effects far from the repository itself over extended time horizons. LDMLFN submits that a comparable level of conservatism and geographic breadth is required here.

2. Transportation Corridors as an Integral Component of the Project Area

LDMLFN reiterates that transportation of used nuclear fuel from existing storage locations to the proposed northern Ontario repository is not ancillary to the project, but a defining feature of it. The environmental assessment must therefore treat transportation corridors as part of the core project area, subject to the same level of scrutiny as the repository site itself.

The movement of millions of fuel bundles over decades through LDMLFN's territory introduces persistent risk exposure along specific highways and rail lines, many of which pass in close proximity to water

bodies, wetlands, and culturally significant lands. These corridors intersect multiple watersheds and create potential contamination pathways that extend far beyond the host community. An assessment zone that excludes or minimizes these corridors fails to capture the true geographic reach of the project.

3. Emergency Response and First Responder Capacity

LDMLFN is concerned that the environmental assessment does not adequately evaluate whether emergency response systems along transportation corridors are capable of responding to a major accident involving used nuclear fuel. Many of the highways and rail lines traversing LDMLFN territory are remote, lightly serviced, and distant from specialized hazardous materials response units.

Local fire departments, emergency medical services, and regional hospitals are not currently resourced or equipped to manage large-scale radiological incidents. Evacuation capacity, decontamination infrastructure, long-term displacement planning, and cross-jurisdictional coordination arrangements are either absent or undefined.

Without clear, funded, and independently verified emergency preparedness frameworks, the risk associated with long-term nuclear transport remains unacceptably high. The assessment must therefore examine emergency response readiness as a core project component rather than as a peripheral contingency.

4. Temporal Scope and Long-Term Safety Horizons

LDMLFN is concerned that the temporal scope of the assessment does not adequately reflect the hazard lifespan of the waste or the timeframes over which adverse effects could manifest. Deep geological repositories are explicitly designed to function over periods measured in tens of thousands to hundreds of thousands of years, far exceeding the duration of institutional control, funding certainty, or active monitoring regimes.

International practice underscores the importance of this issue. In Finland, safety cases for the Onkalo facility were required to model long-term scenarios involving climate change, glaciation, seismic activity, groundwater evolution, and gradual degradation of engineered barriers over geological timescales. These analyses recognized that post-closure and post-institutional periods are not hypothetical, but central to determining whether a repository can be considered acceptably safe.

LDMLFN submits that the environmental assessment must similarly evaluate worst-case and low-probability, high-consequence scenarios across the full hazard lifespan of the waste, including during periods when no active human management can be assumed.

5. Indigenous-Led Monitoring and Governance

LDMLFN submits that meaningful long-term safety cannot be achieved without Indigenous-led monitoring, oversight, and enforcement mechanisms embedded within the regulatory framework. Reliance solely on proponent-managed monitoring systems and government reporting structures does not provide adequate assurance of transparency or accountability over extended time horizons.

Affected First Nations must have guaranteed access to real-time environmental and safety data, authority to retain independent technical experts, and formal roles in inspection and compliance processes. This includes participation in groundwater monitoring, radiation surveillance, infrastructure integrity assessments, and transportation safety reviews.

Long-term governance arrangements must recognize that institutional credibility depends on Indigenous

participation as rights-holders, not merely as stakeholders. Without such mechanisms, confidence in post-approval oversight will remain fundamentally undermined.

LDMLFN is concerned that the assessment does not adequately examine how climate change will affect the safety and reliability of transportation corridors and repository infrastructure over time. Increasing frequency of extreme weather events, flooding, wildfires, freeze-thaw cycles, and infrastructure degradation poses material risks to long-term waste transport and containment systems.

Transportation routes through northern Ontario are particularly vulnerable to washouts, bridge failures, erosion, and service disruptions. Climate-related stresses may also affect groundwater systems, surface hydrology, and engineered barrier performance.

LDMLFN submits that an adequate assessment must evaluate climate resilience across the full lifecycle of the project and demonstrate that infrastructure, emergency systems, and monitoring regimes are capable of functioning under evolving environmental conditions.

6. Cumulative and Regional Effects at Scale

The cumulative effects analysis presented by NWMO does not adequately account for the layered and compounding impacts of the project at a regional scale. The combination of long-term transportation, underground excavation, waste emplacement, and permanent land-use restrictions creates cumulative effects that interact with existing pressures in northern Ontario, including climate change, aging infrastructure, and ongoing resource development.

For corridor communities such as LDMLFN, cumulative effects include not only environmental risk, but also sustained psychological stress, disruption of land-based practices, and constraints on future development arising from proximity to nuclear transport routes and long-term waste storage infrastructure. These effects accumulate over time and across space, and they cannot be meaningfully assessed within a narrowly defined site boundary.

7. Intergenerational and Cultural Impacts

In addition to environmental and economic effects, LDMLFN emphasizes that the long-term presence of nuclear transport routes and waste storage infrastructure will have profound intergenerational and cultural consequences. These include impacts on youth well-being, cultural continuity, language transmission, land-based education, and the ability of future generations to exercise stewardship over their territory.

The designation of Indigenous lands as permanent risk corridors creates enduring stigma and constrains future community-led development opportunities. These effects accumulate over time and cannot be separated from broader questions of reconciliation, self-determination, and cultural survival.

8. Consideration of Alternatives and Risk Distribution

LDMLFN is concerned that the environmental assessment does not demonstrate a rigorous evaluation of alternatives that would reduce the geographic extent of risk. In particular, options that minimize or avoid long-distance transportation of nuclear waste appear to have been prematurely narrowed or excluded.

The selection of a northern Ontario repository effectively transfers risk from nuclear-generating regions to remote Indigenous territories. An adequate alternatives analysis must examine whether such risk transfer is justified, necessary, or equitable, and whether other technically feasible options—such as extended on-site or near-site containment, phased approaches, or distributed storage strategies—could materially reduce cumulative and regional impacts.

E. Implications of Assessment Adequacy

LDMLFN recommends that regulatory approval not proceed unless and until enforceable liability, insurance, financial assurance, and oversight mechanisms are established that reflect international best practice and the project's long-term hazard profile.

Taken together, the narrow definition of the site-related assessment zone, the exclusion of transportation corridors from the core project area, the insufficient temporal horizon, and the limited consideration of regional cumulative effects, the concerns identified by LDMLFN demonstrate that the current environmental assessment framework understates the true scale and risk profile of the proposed undertaking.

LDMLFN submits that the assessment zone must be expanded and the scope of analysis broadened before any regulatory approval is contemplated. Without such expansion, the assessment cannot provide a reliable or defensible basis for decisions involving permanent nuclear waste storage and intergenerational risk. This recommendation is informed by international best practice and the precautionary approach applied in jurisdictions such as Finland,

1. Liability, Insurance, and Long-Term Financial Responsibility

LDMLFN is concerned that the assessment does not clearly identify how liability for accidents, contamination, long-term leakage, or post-closure failures will be allocated and enforced. The absence of transparent liability and compensation frameworks creates uncertainty for affected communities facing permanent risk exposure.

Key issues remain unresolved, including the adequacy of insurance coverage, limits on financial responsibility, mechanisms for compensation, and protections against corporate or institutional insolvency. Given the multi-generational hazard profile of the project, financial guarantees must extend well beyond conventional project lifecycles.

Without legally binding, adequately capitalized, and independently enforceable liability regimes, affected Nations bear unacceptable residual risk.

2. Relevant Context from Finland's Deep Geological Repository (Onkalo)

During the environmental assessment and licensing of Finland's deep geological repository for spent nuclear fuel at Onkalo, the Finnish regulator (STUK) required a far broader and more conservative scope of analysis than that currently proposed by NWMO, particularly with respect to geographic extent, long-term risk, and uncertainty.

First, the assessment zone was not limited to the immediate repository footprint. Finnish regulators required extensive characterization of regional bedrock, fracture networks, and groundwater flow systems extending well beyond the underground facility itself. This was driven by the recognition that radionuclide migration, if it were to occur, would follow natural hydrogeological pathways rather than administrative boundaries. As a result, safety assessments evaluated potential impacts on surface waters, ecosystems, and human receptors at considerable distance from the repository over long time horizons.

Second, Finland's assessment explicitly addressed post-closure and post-institutional control periods as central, not hypothetical, components of project safety. Long-term safety cases were required to model conditions tens of thousands of years into the future, including scenarios involving climate change, glaciation cycles, seismic activity, groundwater evolution, and gradual degradation of engineered barriers. Regulators did not accept assurances based solely on design intent; instead,

proponents were required to demonstrate system resilience under adverse and uncertain future conditions.

Third, Finnish regulators placed significant emphasis on uncertainty and low-probability, high-consequence events. Rather than dismissing unlikely scenarios, the assessment process required explicit modeling of disruptive events such as canister failure, changes in geochemical conditions, and human intrusion. This precautionary approach recognized that the consequences of failure in a nuclear waste repository are qualitatively different from conventional industrial risks and therefore demand a higher standard of conservatism.

Fourth, while Finland's nuclear waste inventory is substantially smaller than the volume proposed for Canada, regulators nonetheless required a high degree of transparency, independent review, and staged licensing. Approval was not treated as a single irreversible decision, but as a sequence of regulatory gates, each requiring updated evidence and renewed scrutiny as new information emerged.

3. Strong regulator, weak inducement leverage

Another key structural difference is that Finland's regulator retained primary authority throughout, and the proponent could not "solve" siting challenges through spending. Financial capacity did not translate into political leverage.

By contrast, where a proponent has access to very large discretionary funds and weak external constraints on how those funds are deployed, financial inducement can become a de facto site selection tool, even if not formally acknowledged as such.

PART IV – CONCLUSION

This LDMLFN submission identifies significant procedural and substantive shortcomings in the IPD, as it relates to the Nation. The IPD raises regional, intergenerational, and long-term considerations extending beyond the immediate repository site. Those considerations engage Indigenous rights and interests that are not fully or accurately reflected in the IPD.

The consultation to date did not involve LDMLFN at the early or strategic stages of project development and did not provide sufficient time, information, or resources to support meaningful participation. As a result, the IPD does not provide an adequate foundation for determining potentially affected Indigenous Nations, scoping the assessment, or developing tailored impact statement guidelines.

In addition, the current assessment framework does not sufficiently address transportation corridors, geographic, and watershed scale effects, long-term safety horizons, cumulative effects, or governance and oversight considerations associated with permanent nuclear waste management. International experience demonstrates the importance of precautionary, regionally scaled, and long-term assessment approaches for projects of this nature.

For these reasons, LDMLFN submits that the IPD should be amended or supplemented before the Impact Assessment process proceeds, and that Nation-specific engagement should inform the assessment scope and process. Doing so will support a more complete, transparent, and durable assessment framework that aligns with constitutional obligations and the objectives of the *Impact Assessment Act*.

For these reasons, LDMLFN respectfully submits that the IPD must be revised and supplemented through meaningful Nation-specific engagement, and that no further regulatory steps should proceed until these deficiencies are remedied.

For any questions, clarification, or follow-up regarding this submission, please contact our Primary Project and Regulatory Contacts:

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In closing, we submit this responsive feedback on behalf of LDMLFN.

Respectfully,

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