



# WESLEYVILLE (PORT HOPE) NEW NUCLEAR PROJECT

IAA Reference # 89802

Comments by Northwatch on  
Ontario Power Generation's  
Initial Project Description

February 11, 2026



## Introduction

On January 12, 2026 the Impact Assessment Agency of Canada (IAAC or “the Agency”) posted a first notice on the [project registry](#) for the *New Nuclear at Wesleyville Project*, announcing that Ontario Power Generation (OPG) is proposing to construct a new nuclear power plant in the Municipality of Port Hope and that a 30-day comment period was opening on an Initial Project Description with a deadline for comments of February 11, 2026. The Project would provide up to 10,000 megawatts of new nuclear generating capacity and operate for 78 years; no reactor technology has been selected.

The IAA announced that the project “is anticipated to be subject to an integrated assessment to meet the requirements of the Impact Assessment Act and the Nuclear Safety and Control Act” and that the Impact Assessment Agency of Canada and the Canadian Nuclear Safety Commission (CNSC) would be working together on the integrated assessment to achieve the goal of “one project, one review”.

According to the announcement, IAAC and the CNSC were inviting Indigenous Nations and communities, and the public to review the [summary of the Initial Project Description](#) and provide comments on the proposed project and stated that “comments received will support IAAC and the CNSC in the preparation of a summary of issues that will be sent to the proponent and help shape how the overall integrated assessment will be carried out”. Comments were required by February 11, 2025.

This comment period had a 75% overlap in the comment period for the Initial Project Description for the Nuclear Waste Management Organization’s *Deep Geological Repository (DGR) for Canada’s Used Nuclear Fuel Project* which had been [announced](#) on February 4<sup>th</sup>.

By Northwatch’s assessment, observation and experience the overlapping of these 30-day comment period – already too short – undermined the public’s ability to meaningfully participate by requiring the review and comment on two large nuclear projects in Ontario largely at the same time. While we appreciate that the Agency is required by circumstance to work within a 180-day timeline for the Planning phase and that the initiation of the comment period is generally triggered by the proponent filing their Initial Project Description, we also understand that the Agency does have the flexibility to delay the launch of the comment period in response to certain circumstances; a delay of the launch of the comment period to avoid an overlap with a comment period for another major nuclear project would have been appropriate. We also note that Ontario Power Generation is currently the source of over 90% of the nuclear fuel waste already generated and provides 94% of the NWMO’s budget and has majority control of their board of directors; as such, we fully expect that both NWMO and OPG were aware of the timeline for both of these project reviews and their commencement, and that it would be reasonable, therefore, to presume that the coincidence was intentional. In such cases, the Canadian public should be able to rely on the Agency to uphold the public interest and our right to meaningful participation.

## Northwatch's Interests

Northwatch's interest in the project is four-fold:

- 1) Ontario Power Generation indicates that they may in the future be in receipt of federal funding for their nuclear project which is of direct interest to all Canadians
- 2) Northern Ontario is experiencing the impacts of climate change with more extreme weather events and extended and more intense forest fire seasons; this project will divert public resources from taking real climate action and will extend Ontario's reliance on gas powered generation plants rather than focussing on real climate solutions such as a transition to renewable energy sources and storage and reducing demand through efficiency measures
- 3) the project may be precedent setting or may become normative in terms of the decision-making of the CNSC and / or IAAC, and
- 4) Northwatch is a regional coalition in northeastern Ontario with a long-standing interest in the impacts of the nuclear fuel chain and the management of radioactive wastes, given the presence in our region of the world's largest uranium refinery and millions of tonnes of radioactive uranium mine tailings and our experience as the repeated target of nuclear waste "disposal" project siting efforts.

Northwatch is part of [We the Nuclear Free North](#), a northern Ontario alliance formed to share information and support critical analysis and opposition to the Nuclear Waste Management Organization's investigation of multiple sites across northern Ontario as potential burial sites for the burial and abandonment of high-level nuclear waste. In November 2024 the NWMO selected the Revell site between Ignace and Dryden as their preferred site for their project to transport, process, bury and abandon all of Canada's high level nuclear waste in a single location.

OPG's IPD indicates that options for the long-term management of the nuclear fuel waste to be generated by the project include "transfer to a disposal facility operated by the Nuclear Waste Management Organization (NWMO)". This is ambiguous enough to include the Revell site for which the NWMO had now initiated an [impact assessment process](#) (IAAC Ref. # 88774) or NWMO's intended "second repository" for which they releases a discussion paper in June 2025 and are currently developing a siting process which they expect to launch in approximately 2028.

The NWMO has indicated that they expect the siting process for the "second" repository to be similar to that used for the siting of the (current) repository for nuclear fuel waste. We therefore anticipate that the NWMO will employ similar strategies, such as marketing their project to northern municipalities and economic development groups as a "national infrastructure project" and inviting them to enter the NWMO process to "Learn More" about the project and its economic benefits. If this is the case, we may see some northern municipalities engage, as it now known that there are financial payouts to municipalities at several points during site investigation. Northwatch observed the NWMO's earlier siting process to be very divisive within the communities they investigated, including 13 communities in northern Ontario.

## Summary Comments

We understand the current comment period to be for the purpose of responding to the Initial Project Description and providing comments on the proposed project for the purpose of contributing to the IAAC's preparation of a summary of issues, and that the development of the terms of reference and impact statement guidelines will be drafted in consideration of the identified issues and other relevant matters. However, we note that many of the comments already submitted took the opportunity to express their views on the project in terms of support or opposition. Accordingly, we will also take the opportunity to summarize our position with respect to the project.

Northwatch is opposed to the expansion of nuclear power. We are opposed to this expansion on the basis of nuclear power production being a high-cost and high-risk option for the generation of electricity and one which produces a range of radioactive wastes, some of which must be contained and kept separate from the environment into perpetuity. The technology produces adverse effects along the nuclear fuel chain – uranium mining, milling, refining, conversion and fuel production – while consuming large amounts of energy and generating greenhouse gases at each step. All these impacts are prior to operation of the reactors; during operation, nuclear reactors release radioactive and other emissions, carry risks of high-consequence accidents and malfunctions, and create a lasting legacy of radioactive wastes.

The electricity needs of the Province of Ontario could be better met with lower risk and more cost-effective options which would have a shorter timeline from proposal to actual operation.

We have reviewed the Initial Project Description<sup>1</sup> and found that it failed to provide adequate information necessary to the impact assessment process, even taking into account that it is an initial project description and therefore a summary document.

In summary, we found the document to be lacking in the following areas:

- Discussion of the need or purpose of the project was unduly limited and poorly supported, limited to broad policy statements by different levels of government
- alternatives to the project were not presented (i.e. alternative means of meeting the need or purpose)
- alternative means of carrying out the project were not adequately presented
- the presentation of a list of four potential reactor designs as “alternative means” of carrying out the project is at odds with the required approach, which is to have a project (i.e. a reactor design) which is the evaluated against other reactor designs as “alternative means of carrying out the project”; in the absence of OPG having selected a reactor

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<sup>1</sup> Peace River Nuclear Power Project Initial Project Description, <https://iaac-aeic.gc.ca/050/evaluations/document/161347>

design their “alternative means” presentation is not only inadequate (or reasons outlined elsewhere) but also an unacceptable approach

- there is no substantive description or presentation of the Plant Parameter Envelope (PPE) or its application or the outcome of its application for this project
- the selected technology (reactor type) was minimally presented (limited to naming four “examples of reactor technologies which have been considered as part of OPG’s PPE” with no actual description of the technologies or any related safety analysis or descriptions for either the fuel or the wastes to be generated
- there were only very summary sections pertaining to the various project stages (site preparation, construction, operation, decommissioning and abandonment) and these largely consisted of listing of items rather than a description
- we found no descriptions of accident scenarios, including worst case scenarios, or of malfunctions or malevolent (terrorist) acts
- there were either inadequate or no descriptions of health, environmental and social impacts and potential impacts related to the wastes that will be generated and their management systems at each project stage (operations, closure and decommissioning)
- there were minimal references and no substantive descriptions or discussion of the radioactive wastes that will be generated (low, intermediate, high) and how they will be managed in the short, medium, and long-term
- there were no radioactive waste volume estimates included in the initial project description for any of the four referenced technologies
- there is no discussion of the fuel type, source, and risk factors for any of the four named reactor designs
- the potential for / responses to accidents, malfunctions and malevolent acts (e.g. terrorist attacks) is wholly absent; note that there are references to “accidental spills” but no discussion of accident potential, or of reactor malfunctions or malevolent acts, all of which could result in large and even catastrophic releases but are not even acknowledged
- proliferation and security risks related to fuel sourcing and production, operations, and waste generation and management are absent
- the costs and financing for each operating stage, including decommissioning and long-term waste management are absent

While the above summary points are a comment on the initial project description and our observations of what necessary information was excluded or absent from the description, we would further comment that the Summary of Issues produced by the Agency as a result of this comment period should include but not be limited to each of the topics identified above, and the eventual draft Tailored Impact Statement Guidelines should also require detailed address of these areas, as well as others identified by Indigenous and other public participants in this review process.

## Comments on the Summary Initial Project Description

The following comments are with respect to the Initial Project Description; note that the page numbers are in reference to where the item was found in the Initial Project Description Summary.

Page	Text or topic in the Initial Project Description (excerpt or description)	Northwatch Comment
3 Rights-Holding First Nations	OPG has engaged extensively with the MS-WTFNs to understand their interpretation of how the UNDA and UNDRIP affect the decision-making processes under this IA. In particular, OPG has heard the WTFNs’ perspective on the importance of the concept of Free, Prior and Informed Consent (FPIC), as	We are concerned by OPG referring to “Free, Prior and Informed Consent” (FPIC) as a “concept”. FPIC is a right, not a concept. FPIC is derived from the <b>right to self-determination</b> . FPIC is distinct from mere consultation; it positions Indigenous Peoples as decision-makers in their own right, rather than just participants in a process.
4 Rights-Holding First Nations	With respect to FPIC, the WTFNs have expressed the view that Articles 29(2) and 32(2) of UNDRIP introduce an Indigenous consent requirement for certain government decisions, particularly for decisions authorizing the storage of hazardous materials in the territories of Indigenous peoples.	We are concerned by OPG describing WTNFN’s determinations with respect to that Articles 29(2) and 32(2) of UNDRIP as “a view”. OPG should state clearly whether they are committed to the implantation of FPIC, and if they will respect and accept the outcome of WTFNs’ consideration of this project and whether - and under what conditions – they might grant consent.
7 Project Design	The site preparation, construction, operation, and decommissioning of a new nuclear reactor over 200 MW thermal (MWth) on an unlicensed site for a Class IA nuclear facility is a designated project listed on the Physical Activities Regulations (under item 27 in the Schedule) under the IAA. <u>Additionally, the construction and operation of a new facility for the storage and management of irradiated nuclear fuel or nuclear waste on an unlicensed site is also a designated project listed on the Physical Activities Regulations (under item 28 of the Schedule) under the IAA.</u> Designated projects are required to submit an IPD to the Agency that meets the requirements of the Information and Management of Time Limit Regulation (IMTLR).	As OPG indicates in this section of their IPD there are two sets of physical activities that would be carried out on the Wesleyville site of OPG were to continue with the NNW project: those associated with the nuclear reactor and its operation and those associated with the waste management facility for the wastes that will be generated. Following the principle of “one project, one assessment” these two sets of physical activities – both of which are designated under the Act – should be assessed as a single project. In contrast, OPG has provided no actual description of the management or methods for the isolation of the radioactive wastes the NNW project will generate.
7 Project Design	The NNW Project is considered a designated project and could require an IA. The NNW Project could generate up to a total of approximately 10,000 MWe which equates to over 30,000 MWth and is located on a site not currently licensed for an existing Class IA nuclear facility. Additionally, OPG is considering alternatives for the on-site storage of irradiated fuel, which would require additional consideration within the overall IA process.	The NNW Project must be subject to a full and comprehensive impact assessment act including a full public hearing. The alternatives OPG is considering for on-site storage of irradiated fuel must be described, and in sufficient detail to allow the Agency, WTFNs and the public to consider those alternatives in the context of the entire project; the IPD does not describe the alternatives of

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		on-site storage of irradiated fuel this section refers to
7 Purpose and Need	<p>Canada has committed to reaching net-zero GHG emissions by 2050. To achieve this, the government is implementing policies such as carbon pricing, phasing out coal-fired electricity, investing in renewable energy, and supporting clean technology innovation. These efforts are designed to transform Canada’s economy towards sustainability while ensuring competitiveness and energy security.</p> <p>The NNW Project directly supports Canada's Net Zero goal by providing reliable, non-emitting electricity to help decarbonize Ontario’s grid and meet growing energy demands. Ontario, guided by the Integrated Energy Plan and working with the Independent Electricity System Operator (IESO), aims to maintain a clean, reliable, and affordable electricity grid through investments in nuclear, renewables, and emerging technologies.</p>	The text provided in the IPD under the section heading “purpose and need” does not provide or even reference any evidence of the need for the project. The text provided references political positioning at various points in time, but that is not a substitution for the comprehensive assessment of “need” and “alternatives to” required under the auspices of the IAA.
8 Preliminary Schedule	<p>Many nuclear generating stations, including the NNW Project, are constructed of multiple units. Each unit is typically designed to be able to operate independent of adjacent units, which allows for substantial chronological overlap of NNW Project phases. One unit could be constructed and operating while a physically adjacent unit is still under construction. Similarly, each unit has an operating period of approximately 70 years, thus, based on their commissioning in-service date several of the units may be shutdown and placed into safe storage while others are still operating (i.e., first commissioned unit could become operational in 2040 and be placed in safe storage in 2110). Project phase overlap is reflected in the table below</p>	This section does not provide a schedule, and does not provide any of the relevant considerations upon which a schedule would be based, including such factors as electricity demand, site management, work force capacity, vendor capacity, etc. Perhaps more importantly, it does not reflect that the four named technologies are either wholly or somewhat under development, and the timeline for design completion and licensing are two large unknowns that precede the several unknowns noted above.
9 Alternatives to the Project	<p>The IESO 2025 Annual Planning Outlook (APO) cites nuclear power as an important resource to help in meeting the increasing demand while providing a reliable source of baseload supply. Nuclear power is a low-emitting source of power, therefore, contributions from new nuclear power projects will be critical in achieving decarbonization objectives.</p> <p>In the case of a nuclear energy project, an assessment of energy mandates established through federal and provincial legislation or</p>	The text provided in the IPD under the section heading “alternatives to the project” does not provide or even reference any evidence of the need for the project. The text provided references political positioning at various points in time, but that is not a substitution for the comprehensive assessment of “need” and “alternatives to” required under the auspices of the IAA.

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	policy may not be within the scope of the IA5 (Impact Assessment Agency of Canada, 2025). <u>No alternatives to the project are being considered.</u>	The Act requires that alternatives to the project be considered; this requirement is not overridden simply by an applicant stating that “no alternatives to the project are being considered”.
10 Alternative Means Overview	The potential development of the NNW Project is also acknowledged in Ontario’s first Integrated Energy Plan, <i>Energy for Generations</i> released in June 2025. Technically and economically feasible alternative means of carrying out the NNW Project will be evaluated through the IA process, including the assessment of best available technologies.	While we appreciate OPG’s acknowledgement that alternative means of carrying out the project must be evaluated through the IA process, a central point during the Planning (current) phase is that these “alternative means” must be described in the Initial Project Description.
10-11 Alternative Reactor Designs	A specific reactor technology has yet to be chosen for the NNW Project and site licensing will follow a Plant Parameter Envelope (PPE) approach. The use of a PPE is consistent with the CNSC’s regulatory guidance document REGDOC-1.1.1 (Site Evaluation and Site Preparation for New Reactor Facilities). Examples of reactor technologies which have been considered as part of OPG’s PPE include: <ul style="list-style-type: none"> <li>• Pressurized Water Reactor - Westinghouse’s AP1000 and EDF’s Evolutionary Pressurized Reactor</li> <li>• Pressurized Heavy Water Reactor – CANDU such as Atkins Realis’ CANDU MONARK</li> <li>• Boiling Water Reactor - GE-Hitachi’s BWRX-300</li> </ul> These are not reactor technologies which have been chosen for the NNW Project but are representative examples that the PPE would encompass. Technology selection will consider and seek to reduce, and mitigate, where possible, real and potential impacts to the rights of the WTFNs.	At no point does the IPD describe the Plant Parameter Envelope (PPE) approach it is proposing to use as a substitute for the impact assessment considering OPG’s selected reactor technology and reviewing alternate technologies as alternative means of carrying out the project. Without prejudice to Northwatch’s view that a project assessment of a reactor must be based on a reactor rather than an abstract construction of potential reactor attributes, we make the following comments on OPG’s proposed approach. The four named reactor designs are either still under development (e.g. MONARK) or their limited operations have been problem ridden (e.g. AP100) or subject to construction delays and cost overruns (e.g.EDF’s EPR); in the case of the BWRX-300, it is inexplicable as to why OPG would select a 300 mw reactor to produce 10,000 mw of power. The application of a PPE approach may contribute to a comparative analysis of alternative reactor technologies, but it is not a substitute for a reactor review which is based on a reactor design.
11 Planned Assessment Approach	A conceptual design that reflects aspects of the design features of the range of technology options will be encompassed in the PPE. The design will include the most conservative (largest impact) parameters to evaluate real and potential impacts of the NNW Project.	There is no evidentiary basis for the claim OPG makes in this section that a PPE approach will include and appropriately state / estimate the appropriate parameters or that the approach produces an evidence and information based analysis.
12 Alternatives for the	Short- (interim storage) and long-term (disposal) alternative management and storage options are being considered including alternative on-site and	While it is appropriate that “Short- (interim storage) and long-term (disposal) alternative management and storage options are being

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Management of Low and Intermediate Level Radioactive Waste	off-site options, and will consider, reduce, and mitigate, where possible, real and potential impacts to the rights of the WTFNs, as well as feedback from engagement with interested Indigenous and local communities	considered including alternative on-site and off-site options” what is appropriate to the IPD is that they be not just listed as being considered but that they be described and described in sufficient detail to allow the Agency, WTFNs and the public to identify related issues and areas to be addressed in the IA (and therefore inclusion in the Integrated Tailored Impact Statement Guidelines (the “guidelines”).
12 Alternatives for the Management of High-Level Radioactive Waste (Used Nuclear Fuel)	Alternatives being considered include interim storage and long-term management of the High-Level Waste (HLW). This includes transferring HLW into fuel-specific dry storage containers which will either be stored on-site in a new, purpose-built facility or transferred to a disposal facility operated by the Nuclear Waste Management Organization (NWMO) or another appropriately licensed facility. The assessment of these alternatives will consider, reduce, and mitigate, where possible, real and potential impacts to the rights of the WTFNs, as well as feedback from engagement with interested Indigenous and local communities	We appreciate OPG stating that it is considering long-term on-site storage as an alternative to off-site options, such as transfer to an off-site facility. However, this section is inadequate in terms of the amount of detail provided, and ambiguous in its reference to “a disposal facility operated by the NWMO”. Is OPG referring to NWMO’s proposed DGR for fuel waste currently in the IA process for which NWMO has stated categorically that there is a limit of 5.9 million CANDU fuel bundles (which will be reached by currently operating reactors)? Or is OPG referring to NWMO’s “second” deep geological repository which a previous federal Minister of Natural Resources thanked them for, acknowledging the recommendation that “Intermediate-level waste and <u>non-fuel high-level waste</u> will be disposed of in a deep geological repository with implementation by the NWMO”? <sup>2</sup>
12 Planned Assessment Approach:	Waste management alternatives that are found to be technically and economically feasible will be carried forward into the assessment, OPG is committed to ensuring waste management activities are informed and guided by Canada’s Policy for Radioactive Waste Management and Decommissioning, (Government of Canada, 2023) and the perspectives of Rights-holding First Nations.	The options under consideration need to be described and considered as alternative means of carrying out the project; this requires an adequate description during the planning phase, detailed requirements in the guidelines, and a thorough examination in the assessment phase.
13 Activities, Infrastructure, and Physical Works	The NNW Project <u>may</u> include other infrastructure such as waste management buildings, administration and training buildings, security and other supporting utilities including water treatment. As the type, number of reactors and the circulating cooling technology have not been established, a range of options based on the	The IPD indicating that the project <u>may</u> include infrastructure such as waste management buildings illustrated the excessive amount of ambiguity, vagueness and evasiveness that is evident throughout the IPD. When OPG indicates that the “project activities may be refined as the NNW Project progresses OPG is indicating that either they

<sup>2</sup> See the Minister’s response to the NWMO’s Integrated Strategy for Radioactive Waste, as found at <https://natural-resources.canada.ca/energy-sources/nuclear-energy-uranium/statement-integrated-strategy>

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	PPE are being considered. Project activities may be refined as the NNW Project progresses.	intend to move through the IA process without defining the project, or that the project can be fundamentally altered (refined) after the assessment phase is complete and the IA decision issues; neither of these options are acceptable.
15-16 Construction Phase	<p>The activities, infrastructure, permanent and temporary structures, and physical works expected to be undertaken during the construction phase include:</p> <p>...</p> <ul style="list-style-type: none"> <li>• construction of buildings and facilities for interim storage of used fuel</li> <li>• construction of buildings and facilities for the management of Low and Intermediate Level Waste (L&amp;ILW)</li> </ul>	<p>The description is inadequate; both in the level of detail and in its lack of inclusivity; for example, Irradiated Fuel Bays (IFBs) are to be operated during the next phase, but are not listed for construction in the construction phase</p> <p>Working backwards from the guidelines, it will be important at the assessment stage that the Impact Statement describe the design and construction of the IFBs as well as their operation (the impact statement will be developed based on the guidelines); to identify issues related to the IFBs the IFBs must be described in the IPD (they are not, and in this instance are not even listed)</p>
16 Operations and Maintenance Phase	<p>The activities, infrastructure, permanent and temporary structures, and physical works expected to be undertaken during the operation and maintenance phase include:</p> <p>...</p> <ul style="list-style-type: none"> <li>• on-site management of new fuel including fuel receiving, inspection, storing, staging, safeguards etc</li> <li>• operation of the fuel handling systems and Irradiated Fuel Bays (IFB)</li> <li>• operation of the turbine generators</li> <li>• operation of the radioactive and inactive liquid waste management systems</li> <li>• operation of TRF (not applicable to all PPE reactors)</li> <li>• management of operational LLW and ILW</li> <li>• potential transportation of operational LLW and ILW to a licensed off-site facility</li> <li>• management of irradiated fuel in IFBs / Dry Storage Containers</li> </ul>	<p>These are core activities and must be described in the IPD.</p> <p>Working backwards from the guidelines, it will be important at the assessment stage that the Impact Statement describe these activities and reactor station systems and structures (the impact statement will be developed based on the guidelines); to identify issues related to these activities and reactor station systems and structures they must be adequately described in the IPD (they are not)</p>
17 Safe Storage	<ul style="list-style-type: none"> <li>• carrying out of waste management activities, including the handling, storage, transportation, and disposal of radioactive and non- radioactive waste</li> </ul>	<p>These are core activities and must be described in the IPD.</p> <p>Working backwards from the guidelines, it will be important at the assessment stage that the Impact Statement describe these activities and</p>

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	<ul style="list-style-type: none"> <li>transfer of spent fuel to dry storage and eventual transfer to a long- term management facility</li> </ul>	<p>reactor station systems and structures (the impact statement will be developed based on the guidelines); to identify issues related to these activities and reactor station systems and structures they must be adequately described in the IPD (they are not)</p>
17 Decommissioning	<ul style="list-style-type: none"> <li>maintenance of cooling for the irradiated fuel bays until all spent fuel is transferred to dry storage</li> <li>”</li> <li>carrying out of waste management activities, including the handling, storage, transportation, and disposal of radioactive and non-radioactive waste</li> </ul>	<p>These are core activities and must be described in the IPD.</p> <p>Working backwards from the guidelines, it will be important at the assessment stage that the Impact Statement describe these activities and reactor station systems and structures (the impact statement will be developed based on the guidelines); to identify issues related to these activities and reactor station systems and structures they must be adequately described in the IPD (they are not)</p>
20 Site Map	<p>Figure 2, presents the site map. Indicated on the map are the ownership boundaries and existing infrastructure in the area. As the conceptual site layout is under development, the spatial relationship of the NNW Project components is still being determined as many project components are dependent on reactor technology, and additional investigations and information regarding cultural landscapes and areas of cultural and spiritual significance to the MS-WTFNs.</p>	<p>Neither the text nor the map describe or explain the two pink blocks which the map legend identifies as being “Friends of Wesleyville”</p>
23 Federal Financial Support	<p>Government of Canada incentives in the form of ITCs are available to help reduce the capital cost of clean energy technologies, including nuclear projects.</p> <p>The current clean economy ITC initiative is scheduled to end in 2034 before new large nuclear projects are expected to come into service. Given the timetable for new large nuclear developments, these ITCs may have little impact or may not apply to the NNW Project</p> <p>Canada’s Department of Finance has updated the federal Green Bond Framework to include nuclear technologies as eligible green expenditures (Government of Canada, 2023). OPG may explore potential for future federal funding, but this is not confirmed at this time.</p>	<p>The nuclear industry’s quest for government funding is an indication that continued nuclear expansion is not financially sound, and that the nuclear option cannot compete with the alternatives of renewable energy sources and battery storage combined with energy efficiency measures.</p> <p>The IA process must include a detailed examination of cost estimates, with those cost estimated presented with supporting evidence and peer reviewed analysis. Affordability is an important issue for Canadians, and the Agency must ensure that a thorough socio-economic examination is carried out, including into the costs, financing, and financial competitiveness of OPG’s NNW Project.</p>
45 Lands Outside of Ontario	<p>The NNW site is situated on the north shore of Lake Ontario approximately 60 km north of the U.S. land mass in New York State. Additionally, the nearest provincial border to the NNW Project</p>	<p>The statement that “no effects on lands outside of Ontario are anticipated” is made possible by the exclusion of an examination of accidents, malfunctions and malevolent acts which could</p>

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	is approximately 280-300 km west of the Quebec border. Given this distance, no effects on lands outside of Ontario are anticipated.	result in large release events, potentially to a catastrophic level.
45 International Waters	The NNW site is approximately 30 km north of the Canadian-United States (U.S.) international border that runs through Lake Ontario, and approximately 60 km north of the U.S. land mass located in New York State. Canada and the U.S. have the following agreements in place related to water: •The Great Lakes Water Quality Agreement •The Boundary Waters Treaty (signed in 1909) OPG will communicate, assess, and mitigate any potential non-negligible adverse effects to Lake Ontario.	The assumption that adverse effects on international waters would be “negligible” is made possible by the exclusion of an examination of accidents, malfunctions and malevolent acts which could result in large release events, potentially to a catastrophic level.
46 Real and Potential Impacts to Indigenous Peoples	OPG understands the importance of obtaining consent from Rights-holding First Nations and interested Indigenous communities before incorporating any Indigenous Knowledge provided as directed, into the IA.	This statement begins well with “OPG understands the importance of obtaining consent from Rights-holding First Nations” but we are concerned by OPG them seemingly limiting their recognition of the need for consent to the release of information.
47 Estimated Lifecycle Emissions	At this stage for the IPD, in the absence of detailed descriptions of the technology and construction methodologies for the NNW Project, the GHG emissions are estimated using lifecycle emission factors from peer-reviewed literature (S. Schlömer, et al., 2014), (Gibon & Hahn Menacho, 2023) for comparable nuclear facilities (Table 3).	The statement that GHG emissions can be estimated using peer-reviewed literature is contestable given that the reactor design has not been identified, some of the reactor designs under consideration are still under development and the technologies are new or untested, and that there is no other nuclear plant of this size operating anywhere in the world (it will be three times the output of Darlington and almost twice the output of Bruce, which is third largest nuclear plant in the world.
47 Estimated Lifecycle Emissions	Table 3: Estimated Lifecycle Emissions for the NNW Project: Fuel Mining and Milling Conversion, Enrichment and Fuel Fabrication Construction Operation and Maintenance Downstream Processes (Decommissioning, Spent Fuel Management, Waste Disposal, etc.)	We appreciate OPG acknowledging that the several steps along the nuclear chain must be factored into a calculation of GHG emissions for the nuclear option, but note that the list of steps in Table 3 excludes the uranium refinery in Blind River; the BR refinery emissions include an incinerator for low-level radioactive waste from Cameco’s operations in Port Hope and Blind River). It is unclear if ongoing operations related to waste management are included, such as the transportation of wastes to the Western Waste Management Facility (WWMF) at the Bruce Nuclear Generating station, and the management of the wastes at the WWMF, including incineration of low-

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		level waste from OPGs nuclear generating stations.
49 Preliminary Estimate of Potential Wastes or Emissions Generated	The site preparation, construction, operation, and decommissioning of the NNW Project will result in potential wastes being generated and emissions released into the environment. A discussion of typical hazardous, non-hazardous, and radiological wastes and emissions that may be generated during all the phases of the NNW Project is provided below with the exception of GHG emissions which is provided in the preceding section. The information provided in these sections is preliminary and would be refined during the IS phase.	This section lacks sufficient detail. The description should include: <ul style="list-style-type: none"> <li>- waste characteristics</li> <li>- waste volumes</li> <li>- waste dimensions</li> <li>- intended management options in the short, medium and long term</li> </ul> Specifically, OPG should clearly state in the IPD (or detailed project description) whether OPG expects or intends to continue shipping low and intermediate level radioactive wastes from their operations to the WWMF, including wastes that will be generated by the NNW Project.
51 Potential Radiological Waste Generation	<ul style="list-style-type: none"> <li>• LLW including paper, rags, tools, clothing, filters, personal protective equipment, items from systems changed out through maintenance etc.</li> <li>• ILW including resins, chemical sludges, metal fuel cladding, etc.</li> <li>• HLW including used fuel</li> </ul>	This section lacks sufficient detail. The description should include: <ul style="list-style-type: none"> <li>- waste characteristics</li> <li>- waste volumes</li> <li>- waste dimensions</li> <li>- intended management options in the short, medium and long term</li> </ul>
51 Potential Radiological Waste Generation – Decommissioning	<ul style="list-style-type: none"> <li>• LLW including building materials from demolition (i.e., concrete, plaster, bricks, metals, valves, piping, etc.), paper, rags, tools, clothing, filters, personal protective equipment etc.</li> <li>• ILW including reactor components, contaminated materials, resins, chemical sludges, metal fuel cladding, etc.</li> <li>• HLW including used fuel</li> </ul>	This section lacks sufficient detail. The description should include: <ul style="list-style-type: none"> <li>- waste characteristics</li> <li>- waste volumes</li> <li>- waste dimensions</li> <li>- intended management options in the short, medium and long term</li> </ul>
52 Emissions In the Air – Operations and Maintenance	Radiological and non-radiological Emissions from operations	This section lacks sufficient detail; the releases should be described, including identification of the radionuclides, the source of the emission, the mitigation measures that will be applied, and the anticipated level of the release
52 Emissions In the Air – Decommissioning	No radiological emissions listed	It is implausible that there will be no radioactive emissions to air during decommissioning. OPG must provide evidence in support of this statement.

Page	Text or topic in the Initial Project Description (excerpt or description)	Northwatch Comment
53 Emissions In or On the Water - Operation and Maintenance	<ul style="list-style-type: none"> <li>radiological and non-radiological effluents from operations</li> <li>thermal water discharge</li> </ul>	This section lacks sufficient detail; the releases should be described, including identification of the radionuclides, the source of the emission, the mitigation measures that will be applied, and the anticipated level of the release
53 Emissions In or On the Water – Decommissioning	<ul style="list-style-type: none"> <li>radiological and non-radiological effluents from decommissioning activities</li> </ul>	This section lacks sufficient detail; the releases should be described, including identification of the radionuclides, the source of the emission, the mitigation measures that will be applied, and the anticipated level of the release
67 <i>Table 8: Real and Potential Impacts to Physical and Biological Environments, and Health, Social, and Economic Contexts</i>	<p>Groundwater Systems</p> <ul style="list-style-type: none"> <li>change in groundwater flow patterns due to physical presence of the buildings and structures</li> <li>change in groundwater quality from changes in stormwater quality, due to potential accidental spills</li> <li>change in groundwater quality from changes in in soil quality due to airborne deposition of conventional and radiological parameters</li> </ul>	It is implausible that there will be no radioactive releases to groundwater, given the operating experience and observations at OPGs three nuclear generating stations (Bruce, Pickering and Darlington) where there have been releases from waste management systems (Bruce) and from irradiated fuel bays (Bruce, Pickering, Darlington).
78 SUMMARY – ENGAGEMENT WITH RIGHTS-HOLDING FIRST NATIONS Key issues and interests raised	Concern around Interim and long-term storage and transportation of nuclear waste, the protection of what MS-WTFNs consider to be Lands, Waters and Relatives, and decision-making. Waste storage and transport are among the greatest sources of	We note OPG’s acknowledgement that Williams Treaty First Nations raised concerns about the management and transportation or radioactive wastes, yet OPG failed to provide sufficient information in the Initial Project Description to allow WTFNs or the public to evaluate these important aspects of OPG’s NNW Project.
83 SUMMARY – ENGAGEMENT WITH THE PUBLIC Key issues and interests raised	<ul style="list-style-type: none"> <li>waste management</li> <li>emergency preparedness</li> <li>technology</li> </ul> <p>How OPG has or plans to address the key interests and issues raised includes:</p> <ul style="list-style-type: none"> <li>providing information in the IPD</li> </ul>	We note OPG’s acknowledgement that waste management, emergency preparedness and the selection of reactor technology were key concerns raised by the public, yet OPG failed to provide sufficient information in the Initial Project Description to allow WTFNs or the public to evaluate these important aspects of OPG’s NNW Project. This is even more incredible given OPG’s statement on page 83 that they intended to address these concerns by

Page	Text or topic in the Initial Project Description (excerpt or description)	Northwatch Comment
		providing information in the IPD. And then the did not provide information in the IPD.
85 Next Steps	The federal IA process is comprised of five distinct phases. Phase 1 (Planning) begins with the submission of the IPD. Following submission, the Agency will determine whether an IA is required. If the Agency determines that an IA is required, the NNW Project will proceed to Phase 2 (Impact Statement).	OPG’s NNW Project must be the subject of a comprehensive impact assessment and a public hearing.  Given the inadequacies of the Initial Project Description issued on January 12 <sup>th</sup> , a Detailed Project Description is required in advance of the public comment period on the draft Integrated Tailored Impact Statement Guidelines.

## Nuclear Fuel Waste and its Long-Term Management

A primary interest of Northwatch in the assessment of Ontario Power Generation’s new nuclear projects – and extended operations, such as with the Pickering refurbishment project – is the generation of radioactive wastes and the management of those wastes in the short, medium and long term. It is through this lens that we review OPG’s proposal to construct up to 10,000 mw of nuclear power generation at Wesleyville. While OPG provides no information about the characteristics of the waste that will be generated (such as waste characterization, volume or inventory) they state that the project will “provide up to 10,000<sup>3</sup> megawatts of new nuclear generating capacity” and each unit will operate for 70 years.<sup>4</sup>

OPG provides no information about the fuel type or dimensions, or the fuel waste characteristics, but assuming – very generally – that the waste generation is at a rate similar to the current CANDU reactors employed by OPG, the Wesleyville project will generate the equivalent waste volume of 4,746,000 million fuel bundles<sup>5</sup> which is approximately 25% more than all the nuclear waste produced by all reactors in Canada as of June 2024<sup>6</sup> and approaches the total capacity NWMO has assigned to their proposed deep geological repository for nuclear fuel waste.<sup>7</sup>

Given the magnitude of the waste volume to be generated, the technical challenge of isolating the wastes into perpetuity, and the high level of concern about radioactive waste as expressed by

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<sup>3</sup> IPD, page 1

<sup>4</sup> IPD, page 8

<sup>5</sup> Estimate is based on multiplying the 22,600 typical annual fuel waste production at the Darlington nuclear station (3,500 mw) by 3 (given the output of 10,000 mw) and multiplying by 70 years.

<sup>6</sup> According to the NWMO’s “Nuclear Fuel Waste Projections in Canada – 2024 Update”, NWMO-TR-2024-09 November 2024, as of June 2024 the total inventory was 3,341,842 bundles, including the nuclear fuel waste from Bruce A and B, Darlington, Douglas Point, Gentilly 1 and 2, Pickering A and B, Point Lepreau, Whiteshell and Chalk River.

<sup>7</sup> NWMO has stated the capacity is 5.9 million bundles.

both WTFNs and the public, it would be reasonable to expect OPG to provide a detailed and evidence-based description of the wastes, the waste volumes, and their intended management approach. They did not.

The most detailed discussion OPG provides is as follows

*Alternatives being considered include interim storage and long-term management of the High-Level Waste (HLW). This includes transferring HLW into fuel-specific dry storage containers which will either be stored on-site in a new, purpose-built facility or transferred to a disposal facility operated by the Nuclear Waste Management Organization (NWMO) or another appropriately licensed facility. The assessment of these alternatives will consider, reduce, and mitigate, where possible, real and potential impacts to the rights of the WTFNs, as well as feedback from engagement with interested Indigenous and local communities.<sup>8</sup>*

*Waste management alternatives that are found to be technically and economically feasible will be carried forward into the assessment, OPG is committed to ensuring waste management activities are informed and guided by Canada's Policy for Radioactive Waste Management and Decommissioning, (Government of Canada, 2023) and the perspectives of Rights-holding First Nations.<sup>9</sup>*

We appreciate OPG stating that it is considering long-term on-site storage as an alternative to off-site options, such as transfer to an off-site facility.

However, this section is inadequate in terms of the amount of detail provided and ambiguous in its reference to “a disposal facility operated by the NWMO”. Is OPG referring to NWMO’s proposed DGR for fuel waste currently in the IA process for which NWMO has stated categorically that there is a limit of 5.9 million CANDU fuel bundles (which will be reached by currently operating reactors)? Or is OPG referring to NWMO’s “second” deep geological repository which a previous federal Minister of Natural Resources acknowledged the recommendation that “Intermediate-level waste and non-fuel high-level waste will be disposed of in a deep geological repository with implementation by the NWMO”?

The options under consideration need to be described and considered as alternative means of carrying out the project; this requires an adequate description during the planning phase, detailed requirements in the guidelines, and a thorough examination in the assessment phase.

The IPD lacks sufficient information and discussion of radioactive waste and its management. The initial project description – or, given the stage we are now at in the Planning phase of the assessment process the now necessary Detailed Project Description – should include, at minimum, detailed descriptions of the following:

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<sup>8</sup> IPD, page 7

<sup>9</sup> IPD, Page 7

- waste characteristics
- waste volumes
- waste dimensions
- intended management options in the short, medium and long term

### Utilization of the Western Waste Management Facility

Specifically, OPG should clearly state in the IPD (or detailed project description) whether OPG expects or intends to continue shipping low and intermediate level radioactive wastes from their operations to the WWMF, including wastes that will be generated by the NNW Project.

### Utilization of the NWMO's Proposed Deep Geological Repository for Nuclear Fuel Waste

In the Initial Project Description OPG states that a “*long-term management of the High-Level Waste (HLW) ... includes transferring to a disposal facility operated by the Nuclear Waste Management Organization (NWMO).*”<sup>10</sup>

As the major partner / player / funder / waste generator in the NWMO operation, Ontario Power Generation may seek to perpetuate the false impression that the NWMO's project is developed and reliable. Outside of the nuclear industry, the shared assessment is that it is neither:

- The NWMO proposal is still in the concept stage. NWMO initiated the assessment process in January 2026 with the filing of a very poor quality and incomplete Initial project Description and say that they will submit a full proposal in 2028 but that timeline is questionable and the last description of the project was published in 2021 and it was very much conceptual in nature, as it continues to be (as evidenced by the annual reports on the NWMO's technical program).
- There is no deep geological repository for high-level nuclear waste operating anywhere in the world, despite decades of effort by the nuclear industry. Some have been repositories have been proposed then cancelled and others have been proposed and are under review (the proposed repository in Sweden has been in the regulatory process since 2011) but none have received full approvals or been brought into operation.

On November 28<sup>th</sup> the NWMO announced that it had selected the Revell site as their preferred location for the development of their deep geological repository project. On that date, Wabigoon Lake Ojibway Nation released a statement acknowledging NWMO's site selection decision and

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<sup>10</sup> IPD, page 7

announcing that the project will be subject to a determination from WLON's Sovereign regulatory decision-making process<sup>11</sup>.

The NWMO's selection of the Revell site is now the subject of a legal challenge from Eagle Lake First Nation.<sup>12</sup>

Eagle Lake First Nation has filed an application in Federal Court seeking a judicial review of the Nuclear Waste Management Organization's decision to build the deep geological repository in the Township of Ignace and Wabigoon Lake Ojibway Nation area. Eagle Lake First Nation says it was "unjustifiably" rejected as a host community and denied its own right to consent to the project and not for any fair, justifiable or defensible reasons, but because members of the First Nation had raised concerns about the nuclear waste site.

The court filing also names the federal minister of natural resources among the respondents and accuses the NWMO of acting in "bad faith" and seeks to have the NWMO's site selection decision quashed.

Approximately 600 submissions were made to the Impact Assessment Agency by the February 4<sup>th</sup> deadline to comment on NWMO's Initial Project Description, and our early analysis indicates that less than 5% of those making comments were supportive of the project; 95% were critical and / or opposed. This is consistent with our own observations that there is widespread opposition to the NWMO's project and their intended use of the headwaters of the Wabigoon and Turtle River watersheds for the burial and abandonment of all of Canada's high-level nuclear fuel waste. This opposition has been expressed by community groups, non-governmental organizations, municipalities, First Nations and treaty organizations in the region of the proposed project, downstream from the project, and along the transportation route.

In northern Ontario there is a high level of concern and opposition to the NWMO's transportation plan, which with the current inventory of waste from Ontario, Quebec and New Brunswick would involve 2-3 shipments per day for more than 50 years, with each truck hauling 35 tons of radioactive waste per trip. Over 90% of those shipments would come from southern Ontario, averaging 1,700 km per trip (1,750 from Wesleyville) with most of those kilometres travelled on the poorly maintained and mostly 2-lane roads of northeastern and northwestern Ontario.

- Each shipment will result in low levels of radioactivity being emitted.
- If there is an accident that results in a breach of the containers it is expected that the releases would be much larger.

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<sup>11</sup> As posted at

[https://www.wabigoonlakeon.ca/\\_files/ugd/04fe7b\\_2ec4c7b04a2b45c0bdf8c78ce967478a.pdf](https://www.wabigoonlakeon.ca/_files/ugd/04fe7b_2ec4c7b04a2b45c0bdf8c78ce967478a.pdf)

<sup>12</sup> <https://globalnews.ca/news/10932606/ontario-first-nation-challenge-nuclear-ignace/#:~:text=A%20First%20Nation%20in%20northern,to%20have%20its%20decisions%20quashed.>

- There is no level of exposure to ionizing radiation that does not pose an associated risk to human health.
- There is very little experience with nuclear fuel waste transportation in Canada.
- International experience has a mixed record.
- There are serious gaps in the testing of the transportation containers and training for emergency responders.
- There is no experience internationally that is equivalent to the distance, volume, frequency and duration of the NWMO's proposed transportation program.

If OPG was to develop the Wesleyville project and their long-term management plan included transporting the wastes to a site in northern Ontario – whether that was NWMO's currently proposed DGR for used fuel waste or their impending proposal for a second DGR – the development would effectively double the number of shipments, either per day or per decade, meaning instead of 2-3 trucks per day for 50 years waste would be shipped either 5-6 trucks per day for 50 years or 2-3 trucks per day for 100 years. Neither is acceptable.

### **Concerns with IAA Process**

Northwatch has multiple concerns with the current review process, some of which have been previously expressed in submissions on Initial Project Descriptions for other nuclear projects (Bruce C, Peace River, NWMO's DGR).

We acknowledge that some of these concerns or criticisms are in response to flaws in the process design and may be more difficult for the Agency to address in the short term, while some of these concerns may be within the range of operational choices the Agency is making in how they deliver this particular review.

Our concerns include:

- The 30-day comment period is too short, particularly for a novel project of this size, complexity and long-lived consequences
- Announcing the participant funding on the same day as the comment period begins and having the application deadline the same day as the comment period ends is problematic; we expect that in most if not all cases the Agency can anticipate with a fair amount of accuracy with the Initial Project Description is to be posted, and could announce the participant funding in advance of the planning phase commencing; this was the arrangement under CEAA, and we have heard no explanation as to why the arrangement could not be similar under the IAA
- The registry is not user friendly:

- The “sort” function often fails to actually sort records by date and there appears to be no means to get it to sort by record number
- When a user views a comment and then returns to the comment listing, the user is returned to the top of the posted comments, and must scroll down to view the next posted comment; this is particular problematic as the comments do not appear in the order of registry number or submission date; it also makes reviewing comments unduly time consuming
- The current version of the Registry is difficult to use and lacks certain functions which were available in previous versions and were helpful to public participants; for example, in previous versions of the registry participants were able to copy and paste a listing of registry postings into a table and then use that to make notes per submission, to track issues and themes, and code and sort registry postings but this function is no longer available; we appreciate that this may be an issue that is outside the scope of what Agency staff are able to address at this time, but wish to note it for the record

## Conclusions

The purposes of this Impact Assessment Act include fostering sustainability, protecting the environment, having fair and predictable impact assessment processes, insuring assessments take all effects into account, ensuring meaningful participation opportunities, relying on scientific information, and the assessment of cumulative effects.

In the instance of the assessment of Ontario Power Generation’s New Nuclear project at Wesleyville in Port Hope, these purposes and the objectives of impact assessment – including meaningful public participation – can only be achieved if the planning phase provides a sound foundation and the assessment is based on comprehensive and factual information about the Project and its potential effects.

To that end:

- The summary of issues must include those issues raised in this and other submissions
- The proponent’s response to the summary of issues must be available at least thirty days before the deadline for comment on the guidelines
- Given the grievous deficiencies of the Initial Project Description, OPG must be required to prepare and provide a Detailed Project Description

In closing, we make two further requests:

- That the Agency provide a detailed dispositioning of Northwatch’s and other participants’ comments as part of carrying out an assessment process that is transparent and one in which decisions are traceable and accountable, and
- The NNW Project is subject to a full and comprehensive impact assessment including a full public hearing.