
DRAFT INTEGRATED TAILORED IMPACT STATEMENT GUIDELINES

OSPE RESPONSE

New Nuclear at Wesleyville (NNW) Project | July 2026

OPENING STATEMENT

The Ontario Society of Professional Engineers (OSPE) welcomes the opportunity to provide feedback on the Draft Integrated Tailored Impact Statement Guidelines for the New Nuclear at Wesleyville (NNW) Project. OSPE is the province's only independent, not-for-profit membership organization representing the engineering profession, with a distribution network reaching over 40,000 engineers across Ontario. Our mandate is to advance the public interest through evidence-based advocacy on matters of engineering, energy, public safety, and environmental stewardship.

Nuclear energy is central to Ontario's long-term energy future. The NNW Project, at a proposed capacity of approximately 10,000 MW, represents one of the most consequential infrastructure decisions in Ontario's history. OSPE supports the federal impact assessment process as the appropriate mechanism for evaluating a project of this scale and complexity, and we are committed to contributing technical expertise that strengthens the rigour and completeness of that process.

OSPE's comments on these draft Integrated Guidelines are informed by the engineering profession's responsibility to protect public safety, the environment, and the long-term interests of the communities affected by this project. They are also informed by OSPE's ongoing engagement with the NNW Project, including our response to the Initial Project Description submitted earlier this year.

Our feedback focuses on areas where the Integrated Guidelines, as currently drafted, miss opportunities to ensure that the full value of the project, including its potential as a thermal energy asset and not only an electricity generator, is properly evaluated. OSPE's comments are offered in a spirit of constructive engagement with IAAC, the CNSC, OPG, and the MS-WTFNs, all of whom share an interest in an assessment process that is thorough, transparent, and capable of producing decisions that will stand the test of time.

OSPE respectfully requests that IAAC consider the observations set out in this submission in finalizing the Integrated Guidelines. We remain available to discuss any aspect of our feedback and to provide further technical input as the assessment proceeds.

PART B — PROJECT DESCRIPTION

Section 2.8.3 — Alternatives to the Project

This is the most significant gap in the document from OSPE's perspective. The section explicitly defers to OPG's Initial Project Description on the question of alternatives, stating that no additional information is required because energy mix decisions are a provincial matter. OSPE's concern is that this conflates two distinct questions. Whether to build nuclear capacity is a provincial energy policy question, and deferring on that is appropriate. But whether the project should be designed to produce electricity only, or electricity and heat, is a project design question. The current framing forecloses the thermal energy cogeneration question at the alternatives stage before it can be properly evaluated.

OSPE RECOMMENDS

Section 2.8.3 be revised to clarify that while electricity supply alternatives are out of scope, thermal energy utilization as an alternative means of carrying out the project remains in scope and could be addressed under Section 2.8.4.

Section 2.8.4 — Alternative Means

The list of alternative means in this section is comprehensive but does not include thermal energy recovery as a discrete item, despite the fact that cooling water technology choice determines what thermal recovery is possible. This addition would be consistent with OPG's own Climate Change Plan and would not expand the IA scope beyond what is appropriate.

OSPE RECOMMENDS

The list of key project elements be amended to include: "thermal energy recovery and cogeneration options, including the feasibility of combined heat and power configurations for each cooling water alternative under consideration."

Section 2.6.1 — Plant Parameter Envelope

OSPE supports the inclusion of Indigenous-defined pathways of impact as inputs into PPE parameter selection and opportunities for review by Indigenous communities and participants. If OPG selects or substantially narrows the reactor technology choices after the PPE is submitted, OSPE suggests a revised PPE must be produced and recirculated to MS-WTFNs. Given the MS-WTFNs' stated concern that their assessment capacity is limited by the absence of detailed design information, meaningful participation should include ongoing design information updates.

OSPE RECOMMENDS

A requirement be added that any material change to the PPE trigger a formal notification and re-engagement process with MS-WTFNs.

SECTION 5 — BIOPHYSICAL ENVIRONMENT

Section 5.7 — Groundwater and Surface Water

This is one of the strongest sections in the document. The requirements for three-dimensional numerical modelling, site-specific hydrogeological conceptual models, and PFAS characterization are appropriate and technically sound given the site conditions. Observations follow.

First, the section requires characterization of Highly Vulnerable Aquifers and Significant Groundwater Recharge Areas but does not explicitly require the proponent to assess the interaction between large-scale dewatering operations during construction and the artesian conditions documented on the west side of the site in the Initial Project Description. In OSPE's view, this interaction warrants explicit treatment in the Guidelines rather than being left to inference from the general modelling requirements. The specific risks associated with dewatering on a site with artesian conditions, including potential effects on hydraulic gradients and legacy contaminant distribution, should be assessed by a licensed Professional Engineer with demonstrated hydrogeological expertise before the Impact Statement is finalized. OSPE flags this as a concern warranting further expert review and recommends IAAC seek qualified technical input on whether additional scoping is required.

OSPE RECOMMENDS

(1) The Guidelines explicitly require assessment of the interaction between large-scale construction dewatering and artesian site conditions, informed by a licensed Professional Engineer with hydrogeological expertise; and (2) IAAC confirm whether construction-phase thermal discharge from dewatering is adequately captured by existing requirements or requires an explicit addition.

Section 5.11 — Fish and Fish Habitat and 5.12 Birds and their Habitat

The animal and habitat requirements are technically detailed and appropriate for a site on Lake Ontario.

OSPE supports Impact Assessment guidance that provides clarity, consistency, and certainty; so proponents can determine what evidence is needed, and how to design projects that avoid, minimize, and offset impacts. The guidance must:

- Embed science-based, field-tested methods for species detection and habitat delineation, with clear quality expectations for data and documentation.
 - Prioritize avoidance and minimization first and require no-net-loss (preferably net-gain) of biodiversity where impacts remain, with measurable, auditable outcomes.
 - Enable predictable timelines and fit-for-risk pathways (registration for low-risk, permit for higher-risk), while preserving public protection and species recovery objectives.
 - Provide role clarity and accountability for proponents, Qualified Professionals/engineers, and the Crown, including how professional sign-off interacts with compliance and enforcement.
 - Respect Indigenous rights and data sovereignty, and incorporate Indigenous knowledge and partnership in both guidance and implementation.
 - Require transparent, open data (with appropriate protections) to reduce duplication and improve cumulative-effects management.
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SECTION 7 — FIRST NATIONS AND OTHER INDIGENOUS COMMUNITIES

This is one of the most substantive sections of the document and reflects a significant evolution from standard IA practice. The requirements around Indigenous-led assessments, FPIC, community-specific pathways of impact, and the right of MS-WTFNs to provide their own conclusions rather than having the proponent speak for them are appropriate and well-calibrated. Three observations follow.

Observation 1 — Adaptive Mechanism for MS-WTFNs-Led Findings

The document states that MS-WTFNs will carry out their own assessment and that outcomes can be brought forward into the IA. This is appropriate in principle, but the document does not specify a mechanism or timeline for how MS-WTFNs-led assessment findings will be incorporated into the Impact Statement if they arrive after the proponent has already drafted its conclusions. Given the staged information-sharing gap identified in OSPE's IPD response (OPG has not yet finalized design details), MS-WTFNs-led assessments are likely to be iterative documents rather than single submissions.

OSPE RECOMMENDS

The Integrated Guidelines include an explicit adaptive mechanism that allows MS-WTFNs-led findings to update the Impact Statement assessment without requiring a full re-submission, structured around defined project milestones.

Observation 2 — Capacity Constraints vs. Choice Not to Engage

Section 7.4.2 requires the proponent to document impacts on Indigenous rights but notes that where a First Nation has not provided its views, an explanation must be provided. This is procedurally appropriate. OSPE raises a question for IAAC's consideration: does the current language adequately distinguish between different reasons why a First Nation may not have provided input at a given stage? The explanation requirement as drafted does not appear to differentiate between a community's considered decision not to engage on a particular component and a situation where engagement did not occur for other reasons, such as timing, process design, or resourcing. OSPE does not assert that this gap exists in this project specifically, but invites IAAC to consider whether the explanation requirement should be more precisely defined to ensure the record accurately reflects the nature of any absence of Indigenous input.

OSPE RECOMMENDS

Whether the explanation requirement in Section 7.4.2 should be more precisely defined to distinguish between a community's deliberate decision not to engage on a particular component and other circumstances that may have prevented engagement, so that the IA record accurately reflects the nature of any gap in Indigenous input.

Observation 3 — Seasonal Presence in Emergency Planning

Section 9.2 already requires the proponent to consider population density, transient workforce, and seasonal population fluctuations in emergency planning zone delineation, which is appropriate. OSPE raises a question for IAAC's consideration: whether the reference to seasonal population fluctuations is sufficiently specific to capture the distinct situation of MS-WTFNs members who may be present on traditional lands within or near the project area for harvesting, cultural, or ceremonial purposes at various times of year. General seasonal

population data, such as that derived from tourism or recreational use patterns, may not reflect Indigenous seasonal land use in the same way or at the same locations. OSPE does not assert that this is a confirmed gap in the current requirements, but invites IAAC to consider whether the seasonal population language in Section 9.2 should explicitly reference Indigenous seasonal land use, or whether existing engagement requirements are sufficient to ensure this population is captured in emergency planning.

OSPE RECOMMENDS	<i>Whether the reference to seasonal population fluctuations in Section 9.2 is sufficiently specific to capture Indigenous seasonal land use by MS-WTFNs members, or whether the Guidelines should explicitly require the proponent to address Indigenous seasonal presence as a distinct input into emergency zone delineation and communications planning, developed in collaboration with MS-WTFNs.</i>
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SECTION 10 — CONTRIBUTIONS TO INFORM DECISION MAKING

Section 10.1.2 — GHG and Climate Change Commitments

The GHG requirements correctly reference the Strategic Assessment of Climate Change (SACC) methodology and require assessment of direct, acquired, and avoided emissions, which is appropriate. OSPE notes one question for IAAC’s consideration: the current requirements do not appear to address how avoided emissions would be quantified if the project ultimately incorporates thermal energy cogeneration. If OPG were to adopt a combined heat and power configuration, avoided emissions from fossil fuel-displaced heating would be a material component of the project’s net GHG profile under the SACC framework, but it is not clear whether the existing requirements would capture this. OSPE does not assert this is a confirmed gap, as it depends in part on how IAAC and ECCC interpret the scope of the avoided emissions assessment under the current SACC Technical Guide. However, OSPE invites IAAC to consider whether the GHG requirements should be clarified on this point, particularly if the alternatives analysis under Section 2.8.4 is expanded to include thermal cogeneration options as OSPE recommends.

OSPE RECOMMENDS	<i>Whether the avoided emissions requirements in Section 10.1.2 are sufficiently clear to capture thermal energy cogeneration scenarios, and whether clarification is warranted, particularly if the alternatives analysis under Section 2.8.4 is expanded to include combined heat and power configurations as OSPE recommends.</i>
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Section 10.2 — Sustainability

The sustainability analysis framework is structured around four to six key Valued Components (VCs) and four sustainability principles. The precautionary principle is listed as the fourth sustainability principle, but the document does not define what applying it means in practice for this project. For a nuclear facility with a 60-plus year operational life and long-term obligations post-closure, the precautionary principle has operational content that should be specified.

OSPE RECOMMENDS	<i>The Integrated Guidelines include at minimum a reference to how the precautionary principle interacts with the uncertainty requirements in Section</i>
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2.6.1 (PPE uncertainty management) and the adaptive management framework throughout the document, so that precaution is operationalized.

GENERAL OBSERVATION — THERMAL ENERGY COHERENCE ACROSS THE DOCUMENT

The Integrated Guidelines treat thermal discharge as an environmental risk requiring mitigation (Sections 5.7 and 5.11) but do not treat thermal energy recovery as a potential project benefit requiring evaluation. OSPE urges IAAC to treat thermal energy utilization not as an expansion of scope but as a correction of an existing gap in the project purpose and need statement, consistent with the engineering profession's responsibility to evaluate the full value and full impact of infrastructure at this scale.