



Ontario Power Generation

New Nuclear at Wesleyville in Port Hope

Initial Project Description

Prepared by:

OPG with contributions from MS-WTFNs



OPG

FOREWORD FROM ONTARIO POWER GENERATION

Ontario Power Generation (OPG) would like to thank the Elders, Knowledge Contributors, and community members from the Michi Saagiig Anishinaabeg Nations of the Williams Treaties First Nations (MS-WTFNs) who have shared their insights and guidance throughout this process. We are grateful for the opportunity to listen, learn, and work together. We recognize and respect the generations who have cared for these lands and whose teachings continue to shape our understanding. We also appreciate the contributions of the Consultation teams from Alderville First Nation, Curve Lake First Nation, Hiawatha First Nation, and Mississaugas of Scugog Island First Nation.

OPG is committed to ongoing, meaningful engagement and to building respectful, mutually beneficial relationships with First Nations and Indigenous communities.

Chi Miigwetch!

In the spirit of collaboration and reconciliation, OPG has invited the MS-WTFNs to provide their perspectives into this Initial Project Description (IPD). OPG is grateful to have received substantial input from the MS-WTFNs which reflects careful consideration of the NNW Project and its real and potential impacts, as well as cumulative impacts and effects arising from historical uses of the Wesleyville site. The MS-WTFNs' contributions are shown throughout the IPD in **colour blocked purple and in Times New Roman font** and have not been modified in any way by OPG.

This IPD represents important, early stage, on-going dialogue between OPG and the MS-WTFNs with respect to the NNW Project. OPG acknowledges that the MS-WTFNs have expressed a clear desire for direct participation in the Impact Assessment (IA), including through MS-WTFNs-led processes. OPG is eager to advance our conversations with the MS-WTFNs as we work to develop a collaborative approach and outline the respective roles and responsibilities of both OPG, and the MS-WTFNs should an assessment of the NNW Project move forward.

While OPG acknowledges and appreciates the MS-WTFNs providing their perspectives with respect to both the NNW Project and Canadian legal principles, OPG does not in all cases share those perspectives. The MS-WTFNs have expressed clear views with respect to the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), and the related concept of Free, Prior and Informed Consent (FPIC), as well as the United Nations Declaration on the Rights of Indigenous Peoples Act (UNDA). OPG understands that the legal landscape in Canada is dynamic and rapidly evolving, and there is more work to be done, including by Canada to carry out its responsibilities under UNDA.

While OPG does not necessarily endorse the interpretations of Canadian law advanced by the MS-WTFNs, OPG values their contributions and looks forward to continuing our conversations to better understand the NNW Project's real and potential impacts on their Rights. OPG remains committed to working with the MS-WTFNs in the spirit of respect, collaboration, and reconciliation to deepen our understanding of their perspectives as we progress through the IA process with the goal of developing a mutually agreeable approach going forward.

Land Acknowledgement

OPG acknowledges that the NNW site is within the shared traditional and treaty territory of the Michi Saagiig and Chippewa Anishinaabeg Nations, collectively known as the Williams Treaties First Nations (WTFNs).

To acknowledge the land is to recognize and honour the connection Indigenous peoples and their ancestors have with it since time immemorial.

FOREWORD FROM THE MS-WTFNs

Our contributions to this document would not have been possible without the guidance and wisdom of our Elders and our Knowledge Contributors¹. We have documented our memories, stories, experiences, and Knowledge about our ongoing connection to the Lands, Waters, and all Relatives within and near the New Nuclear at Wesleyville Project (NNW Project) site, in Port Hope. Our contributions emphasize the interconnectedness of our homelands with our identity, our ways of life, and our wellbeing. As *Michi Saagiig Anishinaabeg*², we are the People of the Big River Mouths, the Salmon People, and the Shoreline People.

Our Elders and Knowledge Contributors have guided our input, including the words that we have incorporated into this document, in our own language, *Anishinaabemowin*³. We encourage readers to refer to the glossary and pronunciation guide found at the beginning of this document. Our contributions honour our responsibility to speak for our Relatives and our communities. We wish to acknowledge the Lands, Waters, the shorelines, the wetlands, and all our Relatives that both live within, and visit, the NNW site. Our *Aanikoobigiganaanan*⁴ (Ancestors) cared for our Relatives since *me'wzha*⁵ (so long ago that no one can remember), and we continue to honour these responsibilities.

Our input into this document is an act of good faith. We have made contributions as open and willing partners of OPG, with the intention of underscoring our ongoing connection to the NNW site. While our contributions often include more than brief descriptions, they are in no way a comprehensive record of our ways of knowing or being, or of our position. More time and information about the NNW Project is required to have a full understanding of real and potential adverse impacts and effects to our communities and to our Relatives. Our engagement and participation in this IPD is non-binding and does not equate to consultation or endorsement for the NNW Project.

It is important to acknowledge that this IPD is a document tailored to meet the requirements of the Canadian Government. We want to be as involved as possible throughout the IA process, and

¹ The MS-WTFNs are grateful for those who have contributed their Knowledge in the development of our collective input into this IPD.

² Throughout this document we have chosen to include this phrase, in *Anishinaabemowin*, which represents a description of our cultural identity. It can be loosely translated as 'People of the Big River Mouths', in English. The common term for our people in English is 'Mississauga'.

³ Throughout this document we have chosen to include this word, in our language, which describes our language. It can be loosely translated as 'speaking the *Anishinaabeg* language', in English.

⁴ Throughout this document we have chosen to include this word, in *Anishinaabemowin*, which most closely corresponds with the western concept and term 'Ancestors'. This word was provided to us by Anne Taylor, of Curve Lake First Nation (CLFN).

⁵ Throughout this document we have chosen to include this phrase, in *Anishinaabemowin*, which is commonly used within our communities to describe our long-standing connections to, and relationships with our homelands and Relatives, which predate Euro-Canadian settlement and the establishment of the Canadian state. It can be loosely translated as 'so long ago no one can even remember', in English. This word was provided to us by Anne Taylor, of CLFN.

we will do so based on our own customs, processes and governance structures, including through our own MS-WTFNs-led Impact Assessment. This will allow us to assess areas of specific interest and concern to our communities, within our desired timelines, and ensure our Knowledge, values, and priorities are carried and meaningfully addressed throughout the IA and project planning.

Within the IPD, we have presented our Knowledge alongside western ways of thinking, with the intention of providing a balance between voices, and between worldviews. Our contributions honour our responsibilities to speak for our Relatives and our communities. While our contributions were informed by Knowledge Contributors and Elders, we intend to engage more fully with our community members to gather Knowledge, insights, and feedback through the MS-WTFNs-led Impact Assessment.



Photo provided by Curve Lake First Nation

Our contributions underscore the need for in-depth consultation established in a manner that achieves our FPIC, meets the Crown's Duty to Consult and Accommodate (DtCA), and respects our communities' sovereignty, Rights, and upholds our decision-making authority.

Our contributions to this IPD are informed by the Principles of OCAP®⁶. We retain in perpetuity, ownership and control of our Knowledge, in which ever form it has been provided, including our narratives, interpretations, stories, words, data, and graphics provided within this IPD. While we are happy to share this information with OPG, the Agency, CNSC, and the public, we ask that this information not be duplicated, distributed or published, in any way other than within the intention and context of this IPD, without our express permission.

We wish to thank OPG for being willing partners, open to dialogue, and for their support for our contributions to this IPD.

⁶ OCAP® is a registered trademark of the First Nations Information Governance Centre (FNIGC) <https://fnigc.ca/ocap-training/>

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i. Abbreviations and Short Forms

AFN	Alderville First Nation
AHT	Anishnawbe Health Toronto
ANSI	Area of Natural and Scientific Interest
APO	Annual Planning Outlook
AOC	Area of Concern
AQA	Air Quality Agreement
AUT	Automatic
BATEA	Best Available Technology Economically Achievable
BFN	Beausoleil First Nation
BWR	Boiling Water Reactor
CANDU	Canadian Deuterium Uranium
CAO	Chief Administrative Officer
CAPC	Community Action Program for Children
CEPA	Canadian Environmental Protection Act
CGIFN	Chippewas of Georgina Island First Nation
CHCN	Community Health Centre of Northumberland
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
CLFN	Curve Lake First Nation
CMT	Culturally Modified Tree
CN	Canadian National
CNL	Canadian Nuclear Laboratories
CNSC	Canadian Nuclear Safety Commission
CNWA	Canadian Navigable Waters Act
CH ₄	Methane
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide equivalent
CP	Canadian Pacific
CRFN	Chippewas of Rama First Nation
CSA	Canadian Standards Association
DFO	Fisheries and Oceans Canada
DGR	Deep Geological Repository
DNHC	Durham Nuclear Health Committee
DNNP	Darlington New Nuclear Project
DtCA	Duty to Consult and Accommodate
ECCC	Environment and Climate Change Canada
EMF	Electric and Magnetic Field
EPR	Evolutionary Pressurized Reactor
ERAP	Emergency Response Assistance Plan
ESA	Endangered Species Act
ESC	Erosion and Sediment Control
FAA	Fisheries Act Authorization
FN(s)	First Nation(s)
FNEP	Federal Nuclear Emergency Plan

FPIC	Free, Prior and Informed Consent
GBA+	Gender Based Analysis Plus
GCS	Geographic Coordinate System
GHG	Greenhouse Gas
GLWQA	Great Lakes Water Quality Agreement
GRCA	Ganaraska Region Conservation Authority
GW	Gigawatts
ha	hectares
HADD	Harmful Alteration, Disruption, or Destruction
HFN	Hiawatha First Nation
HHRA	Human Health Risk Assessment
HKPR	Haliburton, Kawartha, Pine, Ridge District
HLW	High Level Waste
HVA	Highly Vulnerable Aquifers
IA	Impact Assessment
IAA	Impact Assessment Act
IAEA	International Atomic Energy Agency
IBI	Index Biotic Integrity
IESO	Independent Electricity System Operator
IFB	Irradiated Fuel Bay
IJC	International Joint Commission
ILW	Intermediate Level Waste
IMTLR	Information and Management of Time Limits Regulations
ION	Indigenous Opportunities Network
IPCC	Intergovernmental Panel on Climate Change
IPD	Initial Project Description
IS	Impact Statement
ISRW	Integrated Strategy for Radioactive Waste
ITC	Investment Tax Credits
km	Kilometres
kt CO ₂ -e	Kilotons of Carbon Dioxide equivalent
kV	kilovolts
L&ILW	Low and Intermediate Level Waste
LLW	Low Level Waste
LNHL	Little Native Hockey League
LTC	Licence to Construct
LTPS	Licence to Prepare Site
LTO	Licence to Operate
LTWMF	Long-Term Waste Management Facility
MBCA	Migratory Birds Convention Act
MBQ	Mohawks of the Bay of Quinte
MCFN	Mississaugas of the Credit First Nation
MCM	Ministry of Citizenship and Multiculturalism
MCSCS	Ministry of Community Safety and Correctional Services
MECP	Ministry of the Environment, Conservation, and Parks

MEM	Ministry of Energy and Mines
MNO	Métis Nation of Ontario
MNR	Ministry of Natural Resources
MOU	Memorandum of Understanding
MSIFN	Mississaugas of Scugog Island First Nation
MS-WTFNs	Michi Saagiig Anishinaabeg Nations of the Williams Treaties First Nations
MTO	Ministry of Transportation
MW	Megawatt(s)
MWe	Megawatts electric
MWth	Megawatts thermal
NCA	Nuclear Cooperation Agreement
NNW	New Nuclear at Wesleyville in Port Hope
NO _x	Nitrogen Oxides
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
NRCan	Natural Resources Canada
NSCA	Nuclear Safety and Control Act
NWMO	Nuclear Waste Management Organization
OCPs	Organo-chlorine pesticides
OPG	Ontario Power Generation
PAH	Polycyclic Aromatic Hydrocarbons
PCHC	Peterborough Community Health Centre
PDP	Preliminary Decommissioning Plan
PFAS	Per-and polyfluoroalkyl substances
PFOS	Perfluorooctanesulfonic acid
PHAC	Public Health Agency of Canada
PHAI	Port Hope Area Initiative
PHC	Petroleum Hydrocarbons
PHWR	Pressurized Heavy Water Reactor
PM	Particulate matter
PPE	Plant Parameter Envelope
PPH	Peterborough Public Health
PRHC	Peterborough Regional Health Centre
PSW	Provincially Significant Wetland
PWR	Pressurized Water Reactor
PHWR	Pressurized Heavy Water Reactors
RAP	Reconciliation Action Plan
RCP	Representative Concentration Pathway
RfR	Request for Review
SACC	Strategic Assessment of Climate Change
SAR	Species at Risk
SARA	Species at Risk Act
SGRA	Significant Groundwater Recharge Areas
SNGR	Six Nations of the Grand River
SO ₂	Sulfur Dioxide
STP	Sewage Treatment Plant

The Agency	Impact Assessment Agency of Canada
TISG	Tailored Impact Statement Guidelines
TRF	Tritium Removal Facility
TWh	Terrawatt hours
UNDA	United Nations Declaration on the Rights of Indigenous Peoples Act
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNENE	University Network of Excellence in Nuclear Engineering
US	United States
UTM	Universal Transverse Mercator
VCs	Valued Components
VLLW	Very Low-Level Waste
VOC	Volatile Organic Compounds
WAGE	Women and Gender Equality
WTFNs	Williams Treaties First Nations

ii. Glossary of *Anishinaabemowin*

Table I provides a glossary of those *Anishinaabemowin* words or phrases, in the *Michi Saagiig Anishinaabeg* dialect, that the MS-WTFNs have chosen to incorporate into this document. A phonetic pronunciation guide and explanation of the word or phrase, in English, has been provided. However, we wish to note the limits in translating the full understanding and meaning of our concepts and ideas, as they are originally understood in our dialects of *Anishinaabemowin*.

Throughout the document, MS-WTFNs have chosen to italicize all *Anishinaabemowin* words and phrases.

We wish to recognize and honour that there are different dialects, spellings, and nuances of our language across our communities. Many of these words and phrases were provided under the direction of our Knowledge Contributors and the Elders Advisory Committee to the Curve Lake First Nation Cultural Centre, and we wish to express our gratitude for their wisdom and guidance.

Table I: Glossary of *Anishinaabemowin* words or phrases included within the IPD for the NNW Project

<i>Anishinaabemowin</i> word/phrase	Explanation
<i>Aanikoobiganaanan</i> (<i>Ah-nik-ko-big-igun-ah-nun</i>)	This is our word which most closely corresponds with the western concept and term ‘Ancestors’.
<i>Aki</i> (<i>Ah-kee</i>)	This word expresses our concept which most closely corresponds with the western concept of ‘Earth’. It can be loosely translated as ‘our foundation, which life relies upon’, in English.
<i>Anishinaabemowin</i> (<i>Ah-nish-ih-NAH-bay-moh-win</i>)	This word describes our language. It can be loosely translated as ‘speaking the <i>Anishinaabeg</i> language’, in English.
<i>Chi weshjigaadeg nike gaazhnaagwaak mewzha</i> (<i>Chee WESH-jih-gah-deg NEE-kay gahzh-NAH-gwahk MAYW-zhah</i>)	This phrase expresses our own concept, which most closely corresponds with the western concept, or term, ‘restoration’. It can be loosely translated as ‘to get it fixed to how it used to look long ago’, in English. Our understanding of <i>chi weshjigaadeg nike gaazhnaagwaak mewzha</i> , moves beyond western regulations, standards, or baselines. It signifies a return to balance, as it was within

<i>Anishinaabemowin</i> word/phrase	Explanation
	our homelands ⁷ since <i>me'wzha</i> , prior to European settlers.
<i>Dabik Giizis Nookimis</i> (<i>DAH-bik GEE-zis NOO-ki-miss</i>)	This is our name for our Relative, which can be loosely translated as ‘Grandmother Moon’. It most closely corresponds with the western concept of ‘the moon.’
<i>Dooskweyaabin</i> (<i>Doh-skwa-yah-bin</i>)	This is our phrase which expresses our concept which can be loosely translated as ‘blood veins,’ in English. We use this concept within this document to describe our understanding of the rivers, creeks and tributaries that traverse <i>Shkakimikwe</i> .
<i>Gchi Nibi</i> (<i>Guh-chee NIB-ee</i>)	This is one of our names for our Relative, which is now commonly known in English as ‘Lake Ontario. It can be loosely translated as ‘Big Waters’, in English.
<i>Kina ngadmawaad</i> (<i>KEE-nah ngahd-MAH-wahd</i>)	This phrase expresses our own concept, which most closely corresponds with the western concept, or term, ‘material culture’. It can be loosely translated as ‘what they left behind’, in English.
<i>Manoomin</i> (<i>Mah-NOH-min</i>)	This is our word which most closely corresponds with the western concept, and term, ‘wild rice’. It can be loosely translated as ‘the good berry’ or ‘the good seed’, in English.
<i>Me'wzha</i> (<i>MEH-oo-zhah</i>)	This phrase is commonly used within our communities to describe our long-standing connections to, and relationships with, our homelands and Relatives, which predate Euro-Canadian settlement and the establishment of the Canadian state. It can be loosely translated as ‘so long ago no one can even remember’, in English.
<i>Michi Saagiig Anishinaabeg</i> (<i>mi-jih SAW-geeg Ah-nish-i-NAW-bay</i>)	This phrase is a description of our cultural identity. It can be loosely translated as ‘People of the Big River Mouths’, in English. The common term for our people in English is ‘Mississauga’.

⁷ Throughout this document, MS-WTFNs have chosen to include the western term ‘homelands’ to refer to those areas where we maintain long-standing connections and relationships with the Lands, Waters, and all Relatives which have sustained us and have been our place since *me'wzha*. Other western terms which are commonly used to describe similar concepts include ‘traditional lands’, ‘traditional territories’ and ‘ancestral lands’. We have chosen the term ‘homelands’ under the guidance and direction of our Knowledge Contributors.

<i>Anishinaabemowin</i> word/phrase	Explanation
<i>Mino Bimaadiziwin/ Bimaadizin/ Bamaadiziwin</i> (<i>Mih-noh bih-MAAH-dih-zihn</i>)	This is a phrase associated with one of our original teachings, central to our ways of knowing and being – our code of ethics. It can be loosely translated as ‘a good way of living’, in English.
<i>Mishkode</i> (<i>MISH-koh-day</i>)	This is our word which describes what is understood as a prairie or open grass, in English.
<i>Mishoomisag</i> (<i>MISH-oh-mis-sug</i>)	This is our name for our Relative, which can be loosely translated as ‘Grandfathers’, in English. We use this name to describe those <i>Siniig</i> Relatives which are used in burials or in ceremony and play an important role within our spiritual practices.
<i>nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad</i> (<i>NEE-kay gaa-bin-JIH-baad nish-NAH-bay, KEE-nah ngahd-MAH-wahd, KEE-nah gahb-MISH-jih-geh-wahd, NEE-kay wah-nih-SHAH-wahd</i>)	This phrase expresses our own concept, which most closely corresponds with the western concept, or term, ‘cultural heritage’. It can be loosely translated as ‘where we came from, what we left behind, what we did and where we are going’, in English.
<i>Nodin</i> (<i>NOH-din</i>)	This is our name for our Relative, which most closely corresponds with the western concept and term, ‘wind’ or ‘air.’ It refers to the natural element — the wind that moves through the trees, across the Waters, and carries messages, in many <i>Anishinaabeg</i> teachings.
<i>Pemaadeshkodeyong/ Paamitaashkodeyong</i> (<i>PEH-mah-DESH-koh-DAY-yohng/ PAA-mee-TAASH-koh-DAY-yohng</i>)	This is our name for our place and our Relative, which is now commonly known as ‘Rice Lake’, in English. The names provided here can loosely be translated as ‘lake of the burning plains’, ‘plains where the fire moves across’, or ‘where it burns and where it travels’, in English.
<i>Shkakimikwe</i> (<i>shkah-kee-MIH-kway</i>)	This is our name for our Relative, which can be loosely translated as ‘Mother Earth’, in English.
<i>Siniig</i> (<i>ah-sih-NEEG</i>)	This is our word, which most closely corresponds with the western concept and term, ‘rocks’ or ‘stones’.
<i>Zagaswe</i> (<i>Zah-gah-sway</i>)	This is our word, which most closely corresponds with the western concept of ‘sharing’. This concept is foundational to our understanding of our Treaties.

iii. Glossary of Process Term Changes

Table II includes context regarding those process terms, as suggested by the Agency, that OPG and/or the MS-WTFNs have chosen to change to better reflect their individual or mutual understanding or position.

Table II: Glossary of Process Term Changes

Process Term (per the Agency)	OPG Term used in the IPD and context	Term chosen by MS-WTFNs in the IPD and context
<p>Affected Indigenous groups</p>	<p>Real and potentially impacted Rights-holding First Nations and interested Indigenous communities</p> <p>The language “real and potentially impacted Rights-holding First Nations and interested Indigenous communities” is used by OPG based on feedback received from the MS-WTFNs.</p> <p>This language is intended to reflect the fact that the portions of the NNW site were subject to previous uses and provide clarity between Indigenous communities, including First Nations, who hold Aboriginal and Treaty rights.</p>	<p>Real and potentially impacted Rights-holding First Nations and interested Indigenous communities</p> <p>The MS-WTFNs have chosen to use the phrase ‘real and potentially impacted Rights-holding First Nations and interested Indigenous communities’, which better reflects the lived realities of our people.</p> <p>We assert that adverse impacts and effects associated with the NNW Project are already occurring to our communities and our Relatives, prior to the completion of an IA (e.g. feasibility and preliminary study activities, such as borehole drilling, MET tower installation, etc.). These impacts and effects are exacerbated by OPG’s ownership of the NNW site, which continues to disrupt our relationships and direct connections with the Lands and Waters, and all Relatives that live in the area. This includes, but is not limited to, aspects of our landscape which were specifically protected by Treaty.</p> <p>As such OPG and the MS-WTFNs have agreed to use the term ‘real and potentially impacted Rights-holding First Nations and interested Indigenous communities’ within this</p>

Process Term (per the Agency)	OPG Term used in the IPD and context	Term chosen by MS-WTFNs in the IPD and context
		document in place of the Agency’s term ‘Indigenous groups that may be affected by the project’.
Component	No change	<p>Aspect(s) MS-WTFNs have chosen to express our way of knowing through the western term ‘aspect’, which most closely corresponds with our wholistic worldview, which is rooted in interrelationships, where all aspects of place are part of a broader web of connections. This ensures that impacts are not viewed as singular or isolated occurrences, but as something that emerges through the transformation of relationships among all aspects of place (of which the environment is part).</p>
Environment	No change	<p>Place The MS-WTFNs have chosen the term ‘place’ to better reflect our ways of knowing and being. It supports our wholistic worldview which encompasses our relationships and connections to the Lands, Waters, and all Relatives, where we have lived since <i>me’wzha’</i>. It supports a broader understanding of environment which extends beyond the physical aspects of specific locales and encompasses spiritual and cultural aspects.</p>
Indigenous groups	<p>Rights-holding First Nations This term is used to provide clarity between Indigenous communities, including First Nations, who hold Aboriginal and Treaty rights in areas impacted by the NNW Project, and those Indigenous communities which may have interests in the</p>	<p>Rights-holding First Nations The MS-WTFNs have chosen this term to provide clarity between First Nations who hold Inherent, Aboriginal and Treaty Rights in areas impacted by the NNW Project, and those Indigenous communities which may have</p>

Process Term (per the Agency)	OPG Term used in the IPD and context	Term chosen by MS-WTFNs in the IPD and context
	<p>NNW Project.</p> <p>For the purposes of the NNW Project the Rights-holding First Nations include the Williams Treaties First Nations (WTFNs) of Alderville First Nation, Beausoleil First Nation, Chippewas of Georgina Island First Nation, Chippewas of Rama First Nation, Curve Lake First Nation, Hiawatha First Nation, and Mississaugas of Scugog Island First Nation.</p> <p>Interested Indigenous communities The term ‘interested Indigenous communities’ is used to describe those Indigenous communities, including First Nations, who may have interests in the NNW Project, but who do not hold established Treaty rights in areas impacted by the NNW Project.</p>	<p>interests in the NNW Project.</p> <p>For the purposes of the NNW Project the Rights-holding First Nations include the Williams Treaties First Nations (WTFNs) of Alderville First Nation, Beausoleil First Nation, Chippewas of Georgina Island First Nation, Chippewas of Rama First Nation, Curve Lake First Nation, Hiawatha First Nation, and Mississaugas of Scugog Island First Nation.</p> <p>The Crown has a Duty to Consult and Accommodate (DtCA) the MS-WTFNs with respect to any decision or activity that is contemplated has the potential to adversely impact our asserted or proven Rights. When we use the term ‘Rights-holding First Nations’ within this document, we are referring solely to those Indigenous communities who have Inherent, Aboriginal and Treaty Rights within the NNW site and surrounding areas.</p> <p>Interested Indigenous communities For the MS-WTFNs, the term ‘interested Indigenous communities’ is used to describe those Indigenous communities, including First Nations, who may have interests in the NNW Project, but who do not hold established Treaty Rights in areas impacted by the NNW Project.</p>
<p>Indigenous peoples of Canada</p>	<p>No change</p>	<p>Indigenous peoples within Canada The term ‘of’ implies ownership, which contradicts the reality that Indigenous peoples have been living on the back of the Big</p>

Process Term (per the Agency)	OPG Term used in the IPD and context	Term chosen by MS-WTFNs in the IPD and context
		Turtle ² since <i>me'wzha</i> . As a result, the MS-WTFNs have chosen to express this reality through use of the language 'within Canada'.
<p>Potential Effects</p>	<p>Real Impacts This term is being used to describe real impacts to Rights-Holding First Nations from previous uses of the NNW site as well as feasibility and preliminary study activities (e.g. geotechnical investigation).</p> <p>Potential Impacts This term is being used to describe potential future impacts from the NNW Project.</p> <p>The language 'real and potential impacts' is used by OPG based on feedback received from the MS-WTFNs. This language is intended to reflect OPG's acknowledgement that the MS-WTFNs have identified that portions of the NNW site were subject to previous uses which has caused impacts to their communities.</p> <p>In assessing the NNW Project, OPG will take into account these prior uses, which the MS-WTFNs consider having caused 'real impacts' – and in particular, the cumulative effects that may arise as a result of such prior physical activities.</p> <p>Further, OPG acknowledges that the MS-WTFNs' position that the NNW Project will likely have certain impacts that may not be fully mitigated, and that such impacts are considered to be 'real impacts'</p>	<p>Real and Potential Adverse Impacts and Effects The MS-WTFNs have chosen this term to better account for the breadth of real and potential adverse impacts and effects to our communities as a result of previous, current and future use of the NNW site.</p> <p>Adverse impacts and effects associated with the NNW Project are already occurring to our communities and our Relatives prior to the completion of an IA (e.g. feasibility and preliminary study activities, such as borehole drilling, MET tower installation, etc.). These impacts and effects are exacerbated by OPG's ownership of the NNW site, which continues to disrupt our relationships and direct connections with the Lands and Waters, and all Relatives that live in the area. This includes, but is not limited to, aspects of our landscape which were specifically protected by Treaty.</p> <p>The feasibility activities/pre-assessment studies are already impacting the Lands, Waters, and all Relatives, prior to the completion of the IA (e.g. borehole drilling, MET tower installation etc.).</p>

Process Term (per the Agency)	OPG Term used in the IPD and context	Term chosen by MS-WTFNs in the IPD and context
	<p>by the MS-WTFNs as opposed to purely hypothetical impacts.</p> <p>Hypothetical future impacts, which OPG acknowledges that the MS-WTFNs consider to be ‘potential impacts’, may arise should the NNW Project proceed.</p> <p>Use of ‘real and potential impacts’, language does not wish to convey that certain impacts are less significant, or will be assessed with less scrutiny, as compared to others.</p>	
<p>Species</p>	<p>No change</p>	<p>Relatives The MS-WTFNs have chosen the western term ‘Relatives’ to better reflect our cultural and spiritual relationships with our place, including human and non-human Beings, such as the Land, Air, Waters, and all Animal, Plant, Bird, Fish and Little Spirit Beings (Relatives). It acknowledges our worldview that all beings are Related.</p>

iv. Introduction

OPG is Ontario's largest clean power⁸ generator, with one of the most diverse generating portfolios in North America, operating hydroelectric, nuclear, solar, biomass, and natural gas generating stations. OPG's current portfolio provides about half of Ontario's power needs. With Ontario's Independent Electricity System Operator (IESO) forecasting the need to significantly increase the grid's generation capacity by 2050, the province has embarked on its most significant period of growth for the electricity sector. Increasing electricity demands are tied to growing populations, economic development, and the need to decarbonize other sectors. OPG is committed to continuing to decarbonize Ontario's energy supply to meet Canada's climate change goals and is focused on partnering with Rights-holding First Nations and interested Indigenous communities as part of its clean energy transition. Ontario is starting with a grid that is among the cleanest in Canada, in part due to OPG proactively closing its coal facilities, as well as the abundance of nuclear, hydroelectric, and wind power facilities on the grid. To meet anticipated demand, Ontario requires an aggressive buildout of more clean energy generation.

OPG is planning to develop a new nuclear power project within the homelands⁹ and treaty territories of the WTFNs, in Port Hope, within the village of Wesleyville, as part of the plan to meet Ontario's growing energy needs, referred to in this document as the New Nuclear at Wesleyville Project (NNW Project).

The NNW site, and the surrounding area are comprised of several aspects of cultural landscape,¹⁰ which remain central to our place-based identity as *Michi Saagiig Anishinaabeg*; There are several places of relational, spiritual, cultural, and economic importance to our people within or near the NNW site. These include, but are not limited to, *Gchi Nibi*¹¹, its shoreline, and

⁸ The MS-WTFNs raise concern regarding characterization of nuclear power by OPG as 'clean energy'. Nuclear energy includes the generation of nuclear waste within our homelands and Treaty Territories. In our view, the reality of nuclear waste is not 'clean' but rather leaves lasting impacts to our Relatives and our future generations. The risks associated with potential nuclear accidents and malfunctions, as well as the uncertain future of nuclear waste produced by the NNW Project, must be evaluated through our communities' experiences, and ways of knowing and being.

⁹ **Homelands** - OPG recognizes the land being proposed for the NNW Project as the MS-WTFNs' homelands and as the Treaty Territory of the Michi Saagiig and Chippewa Williams Treaties First Nations. OPG has used this term "Homelands" throughout the text to reflect the understood unique relationship with the lands on which the NNW Project is being proposed.

¹⁰ Throughout this document, we have chosen to include the western term 'cultural landscape', as it is the term which most closely corresponds with our understanding of the interconnectedness we share with our place, which has been our home, and the home of our Relatives, since *me'wzha*. Our place has informed and guided our identity, responsibilities, values, ways of knowing and being and ways of life, over many generations.

¹¹ Throughout this document, we have chosen to refer to, what is commonly known in English as 'Lake Ontario', by one of our names for this Relative. *Gchi Nibi* can be loosely translated as 'Big Waters', in English. We wish to recognize and honour that there are many names within our communities for *Gchi Nibi*.

the shorelines and mouths of its tributaries, a remnant *mishkode*¹² (cultivated grassland prairie), *manoomin*^{13, 14} (wild rice), coastal and other wetlands, Oily and Chrysler points (peninsulas), and archaeological and ancestral burial sites. These are areas from which our cultural identity, as a people, is derived — *nike gaabinjibaad Nishnaabe* [where we came from], *kina ngadmawaad* [what we left behind], *kina gaabmishjigewaad* [what they did], *nike wanishaawaad* [where we are going]¹⁵.

Here, our people lived, gathered and shared Knowledge and ways of being, lived out our responsibilities to our Relatives, participated in social gatherings, maintained our fisheries, harvested foods and medicines, buried and cared for our *Aanikkoobigiganaanan* and practiced our spirituality and ceremonies. We maintain deep connections to, and relationships with, the Lands, Waters, and all human and non-human Being inhabitants (collectively called Relatives within this document) within our homelands, including those within and around the NNW site. Our Relatives are integral to our cultural identity, our values, our ways of knowing and being and our spirituality.

As shared by *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban):

This is our land. This is our homeland. Everything here speaks to us about our old people. We've been here a long, long time. We were created here. This place is very much part of our soul, very much a part of our spirit. [...] Every speck of dust in this part of Ontario has been raised by our feet (Williams-ban, 2018).

As *Michi Saagiig Anishinaabeg* Nations of the Williams Treaties First Nations (MS-WTFNs), our communities of Alderville First Nation (AFN), Curve Lake First Nation (CLFN), Hiawatha First Nation (HFN) and Mississaugas of Scugog Island First Nation (MSIFN) must be involved in any decisions regarding our homelands (Lands, Waters, and all Relatives) and Treaty Territories. We must be consulted whenever decisions or activities that have the potential to adversely impact our Inherent, Aboriginal and Treaty Rights (Rights) are contemplated. The NNW site is situated on lands subject to pre-Confederation Treaties between the Crown and our

¹² Throughout this document, we have chosen to include our word, in *Anishinaabemowin*, which can be loosely translated as 'prairie' or 'open grass', in English and describes tall grass prairies which are cultivated by our people. Alderville First Nation endeavours to preserve, restore, and expand, these rare grassland habitats, including at its [Black Oak Savanna](#) site.

¹³ As noted in Section 3.4.2.1.1, a wild rice species (*Zanazia sp*) has also been observed in the central coast marsh.

¹⁴ Throughout this document we have chosen to include our word, in *Anishinaabemowin*, which most closely corresponds with the western concept and term, 'wild rice.' It can be loosely translated as 'the good berry' or 'the good seed', in English.

¹⁵ We wish to express gratitude to the Elders Advisory Committee of the Curve Lake First Nation Cultural Centre, who provided these words to guide us. These words have shaped this document and the understanding and interpretation of our connection to the NNW site and surrounding area, as presented within our contributions to the IPD.

Nation¹⁶, as well as areas covered by the Williams Treaties of 1923, and the Williams Treaties First Nations Settlement Agreement of 2018, between Ontario, Canada and the WTFNs.

Our communities continue to hold and exercise our Rights within our homelands and Treaty Territories, including within the Lands and Waters surrounding the NNW site. Our Rights are recognized and protected by Section 35 of the Canadian Constitution Act. Our Rights were re-affirmed through the Williams Treaties First Nations Settlement Agreement of 2018, after nearly a hundred years of illegal Rights-denial which resulted from the Williams Treaties of 1923. In 2021, Canada enacted the UNDA which embedded the principles of the UNDRIP into Canadian positive law.

The pre-Confederation and Williams Treaties are silent on lakebeds and Waters within WTFNs' Territories. The Canadian Nuclear Safety Commission (CNSC) is aware that the MS-WTFNs are claiming jurisdiction over the Lakebed of *Gchi Nibi*. The CNSC confirmed with Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) that the Williams Treaties First Nations Settlement Agreement of 2018 does not cede the Lakebed of *Gchi Nibi* to the Crown. Until proven otherwise, the WTFNs have Aboriginal Title with all corresponding property rights, to all lakes and lakebeds within our Treaty Territories, which remain under our jurisdiction. Any activities which impact those Lands and Waters requires our consent and meaningful consultation, not simply a process of sharing information (Adapted from Mississaugas of Scugog Island First Nation, 2024).

The NNW site, and the surrounding areas have been taken up into Crown and private ownership, without the consent of the MS-WTFNs, and contrary to the promises and intent of our Treaties. The imposition of Crown jurisdiction and private ownership has diminished our communities' ability to freely access the Lands, Waters, and all Relatives at the NNW site and surrounding areas. This has led to a disruption to our direct relationships with our cultural landscapes, our Relatives, and our place-based ways of life.

¹⁶ As shared by Tom Cowie, Consultation Indigenous Knowledge Lead at Hiawatha First Nation, AFN, CLFN, HFN, and MSIFN, are *Michi Saagiig Anishinaabeg* First Nation communities that are related to each other culturally and to the broader Mississauga Nation. The Mississauga Nation includes AFN, CLFN, HFN and MSIFN, as well as the Mississaugas of the Credit First Nation (MCFN) and Mississauga First Nation. Culturally, the Mississauga Nation is part of the broader *Anishinaabeg* Nation, which includes the Ojibway, Chippewas, Mississaugas, Odawa and Pottawatomi Nations. Under the Indian Act, AFN, CLFN, HFN and MSIFN are recognized as distinct governing authorities, who hold the collective Rights of our community members. In this sense, we are individual Nations with sovereign Rights, while also belonging to a collective cultural Nation – the Mississauga Nation, and *Anishinaabeg* Nation. AFN, CLFN, HFN and MSIFN are signatory to several pre-Confederation Treaties, including the Gunshot Treaties. AFN, CLFN, HFN and MSIFN are also signatory Nations to the Williams Treaties of 1923 and the Williams Treaties First Nations Settlement Agreement of 2018, along with the Chippewa Nations of Beausoleil, Georgina Island and Rama (collectively known as the Williams Treaties First Nations (WTFNs)). Within this document, we speak of ourselves as *Michi Saagiig Anishinaabeg* (our shared cultural identity), as communities which are part of the Mississauga and *Anishinaabeg* Nations, as individual sovereign First Nations with Inherent Rights, as First Nation communities recognized under the Indian Act, and as individual Aboriginal and Treaty Rights-holding member First Nations of the WTFNs.

The NNW site owned by OPG and is proposed as a location for a new nuclear project. The proposed NNW Project at this site will include several nuclear reactor units with a total capacity of up to approximately 10,000 Megawatts electric (MWe) or roughly 30,000 Megawatts thermal (MWth). The site preparation, construction, operation, and decommissioning of a new nuclear power plant over 200 MWth on a site not currently licensed for nuclear generating activities as set out in the Impact Assessment Act (IAA) and therefore may require a federal Impact Assessment (IA)¹⁷. Therefore, the proposed NNW Project has no objection should the Agency determine that a federal IA is required.

The NNW Project will also include physical activities regulated under the Nuclear Safety and Control Act (NSCA) to meet Class IA nuclear facility and Class IB nuclear waste facility licensing requirements.

OPG's current plan is to submit a Licence to Prepare Site (LTPS) application together with the Impact Statement (IS). The licence application will include consolidation of licence activities authorized to prepare, where site preparation will include activities related to a nuclear facility (Class IA nuclear facility) and a waste facility (Class IB nuclear facility).

Through UNDA, the Government of Canada has affirmed UNDRIP as a universal international human rights instrument with application in Canadian law. The federal government has stated that UNDRIP provides a framework for reconciliation, healing and peace, as well as harmonious and cooperative relations based on the principles of justice, democracy, respect for human rights, non-discrimination and good faith.¹⁸ UNDA sets out a statutory framework for the implementation of UNDRIP into federal law. The Supreme Court of Canada has stated that it is *“through this Act of Parliament that [UNDRIP] is incorporated into the country’s domestic positive law.”*¹⁹

OPG is closely monitoring the federal government’s efforts, in consultation with Indigenous peoples, to implement UNDRIP and to ensure that the laws of Canada are consistent with UNDRIP. Further, over the past several years, Canadian courts have begun to consider and interpret the impact of the UNDA on the constitutional principles of consultation and the Honour of the Crown.

¹⁷ During the planning phase of the IA process, the Agency will decide whether an impact assessment is required for the NNW Project based on factors listed in Section 16 of the IAA.

¹⁸ *Backgrounder: United Nations Declaration on the Rights of Indigenous Peoples Act.*

¹⁹ *Reference re An Act respecting First Nations, Inuit and Métis children, youth and families*, 2024 SCC 5 at para 15.

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 FPIC, as a mechanism to enable their meaningful participation in decisions that may impact their treaty and traditional territories. 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.

OPG acknowledges that any decision statement issued under this IA process must meet the applicable legal and constitutional requirements, and that the government must act consistently with the Honour of the Crown – and if those requirements are not met, any shortcomings may be addressed in court. OPG intends to continue to engage collaboratively with the WTFNs to understand their perspective on those requirements, and to ensure that any decision ultimately complies with the law and Canada's constitution.

Moreover, OPG is committed to developing a collaborative relationship and process with the WTFNs that exceeds minimum legal requirements, resulting in mutually beneficial outcomes that reflect such a relationship and process. As part of that, OPG will continue to have meaningful discussions with the WTFNs and incorporate their views and perspectives into the NNW Project. OPG's overarching goal is to advance the NNW Project collaboratively and with the support of WTFNs, based on *listening* to the WTFNs' perspectives and concerns, and *incorporating* that feedback in a meaningful way. OPG looks forward to advancing the NNW Project as partners.

Nuclear waste and nuclear waste management are issues of great concern and importance to the MS-WTFNs. Nuclear waste management and storage must be planned before the NNW Project is proposed. Our communities should be meaningfully included into planning and oversight of nuclear waste, nuclear waste management, and nuclear waste storage and transportation within our homelands and Treaty Territories. Any decisions regarding nuclear waste, nuclear waste management, its storage, and/or its transportation must uphold our decision-making authority.

The proposed NNW Project marks an important step forward in OPG's commitment to developing low carbon energy solutions in alignment with the company's climate change goals and action plan. Nuclear power is recognized for its unique ability to provide reliable, large-scale energy solutions with minimal greenhouse gas (GHG) emissions. As the global community intensifies its efforts to combat climate change, the role of nuclear energy becomes increasingly vital. The NNW Project represents a major investment in clean energy that will meaningfully

contribute to the new nuclear capacity required for Ontario to meet its clean electricity needs in 2050, as outlined in Ontario's Integrated Energy Plan *Energy for Generations* and recommended by Ontario's IESO's *Pathways to Decarbonization Report* (Independent Electricity System Operator, 2022). The NNW Project will also allow OPG to support Canada's goal of being net-zero by 2050. By harnessing nuclear power, OPG is ensuring a cleaner, more sustainable future while addressing the pressing need for energy security and environmental stewardship.

As *Michi Saagiig Anishinaabeg*, our ways of knowing and being are not often aligned with western concepts, including terms such as 'healthy environment', 'sustainability', and 'global climate'. Our ways teach us to maintain balance among All our Relations and to protect balance for future generations. This means considering every Being – human and non-human, past, present, and future – when we are making decisions. The risks associated with potential nuclear accidents and malfunctions, as well as the uncertain future of nuclear waste produced by the NNW Project, must be evaluated through our communities' experiences, and ways of knowing and being, which cannot be done without first talking to our community members. Acceptance of such risks must be obtained through our FPIC and be consistent with our decision-making authority.

Often, when Canada, Ontario, and proponents pursue 'sustainability solutions' they do so at the cost of our people and our Relatives, and at the cost of our identity, our values, and our ways of life. We have a responsibility to approach the concept of 'sustainability' in relation to the NNW Project, and other nuclear projects, as guided by our teachings. This includes through guidance from our Elders, Knowledge holders, youth and members. We will look to our concept of *chi weshjigaadeg nike gaazhnaagwaak mewzha*.²⁰ Whether and how balance can be maintained and/or restored for our communities, for our Relatives and for our future generations, must be determined through our ways of knowing and being and uphold our decision-making authority.

OPG is working towards building long-term relationships with Rights-holding First Nations and interested Indigenous communities to establish trust, respect, and long-term partnership. It is OPG's goal to develop processes that support the inclusion of Rights-holding First Nations as equal voices²¹ at the table, through an approach that is informed by and consistent with

²⁰ Under the guidance of the Elders of CLFN, we have chosen to include the *Anishinaabemowin* phrase '*chi weshjigaadeg nike gaazhnaagwaak mewzha*', throughout this document, to more closely align with our ways of knowing when we think about the western term and concept of 'restoration'. This phrase can be loosely translated as 'to get it fixed to how it used to look long ago', in English. Our understanding of *chi weshjigaadeg nike gaazhnaagwaak mewzha* moves beyond western regulations, standards or baselines. It signifies a return to balance as it was within our homelands since *me'wzha*, prior to European settlers.

²¹ OPG has initiated discussions with the MS-WTFNs with the goal of entering into a co-development agreement, which would allow for real-time participation in decision-making for aspects of the NNW Project.

Indigenous governance. OPG remains committed to listening, learning, and building respectful relationships through OPG's reconciliation journey.

OPG is a lead developer of clean generation economic partnerships with First Nations and Indigenous communities in the Province and remains committed to continued action.

To this end, OPG released its Reconciliation Action Plan (RAP) (Ontario Power Generation, 2024) in June 2022, which frames OPG's commitment to building stronger relationships with Rights-holding First Nations and interested Indigenous communities. It prioritizes acknowledging and understanding Aboriginal and Treaty rights and culture and ensuring that impacts to Aboriginal and Treaty rights are addressed in ways deemed meaningful by impacted Rights-holding First Nations. It focuses on establishing meaningful partnerships, with the goal that Rights-holding First Nations and interested Indigenous communities tangibly benefit from OPG's projects. The plan includes initiatives such as job creation, training programs, and community investments, which are aimed at supporting Indigenous peoples and advancing reconciliation in a respectful and impactful way.

Rights-holding First Nations are being engaged as part of the IA process to ensure that the protection of Aboriginal and Treaty rights and consideration of Indigenous Knowledge inform the assessment process as well as any Crown decision-making taking place under the IAA. As such, the MS-WTFNs have been invited to provide input to the IPD and other elements of the IA process. OPG is grateful for the consideration, time, and input of the MS-WTFNs.

The MS-WTFNs have contributed to this IPD as an act of good faith and with the intention of providing evidence of our ongoing connection to the NNW site; This area remains central to our identity, to our ways of knowing and being, and to our wellbeing.

OPG continues to invest millions in local economies and employs thousands of people to operate and maintain its energy fleet. In partnering with local and environmental groups, OPG is able to support and enhance the wellbeing of OPG's many site communities. Further, OPG's development partnerships with Indigenous partners are creating lasting economic benefits. OPG's proposed NNW Project creates another opportunity for OPG to continue to build local economic and environmental benefits, deliver clean, safe power to the grid, and develop opportunities for reconciliation with First Nations and Indigenous communities.

v. Objective

Proponents of designated projects are required to submit an IPD which initiates the planning phase of the IA. The required contents of the IPD are specified in Schedule 1 of the Impact Assessment Act (IAA)'s Information and Management of Time Limits Regulations (SOR/2019-283) (IMTLR). The format of this IPD strives to follow the order of IMTLR requirements (Parts A to E) (See Annex A. IPD/IMTLR Concordance Tables).

The IA process, including the requirements of the IMTLR, has been developed through western knowledge systems and is guided by western frameworks, which do not readily align with our ways of knowing and being. Our contributions are limited by the style, format, and language of this document; Our contributions to this IPD have been discussed and interpreted through English, which limits the full understanding and meaning of our concepts and Knowledge, as they are originally understood in our dialects of *Anishinaabemowin*.

As such, we have made changes to some of the terminology utilized within the Agency's *Guide to Preparing an Initial Project Description and a Detailed Project Description*, with the goal of maintaining the intention of the IMTLR, while refining the language to ensure it is better aligned with our ways of knowing and being and the lived realities of our communities. An overview of changes to IMTLR process terms is provided in Table II. We have also made use of footnotes throughout this document to help the reader better understand our concepts, ways of knowing and being, language, and rationale.

The Government of Canada owes a DtCA in connection with any decisions that might impact Aboriginal or Treaty rights, including potential but unproven rights. This includes decisions rendered under the IAA. The Agency integrates the Government of Canada's Crown Consultation activities into the IA process to the greatest extent possible, guided by the principle of the honour of the Crown, and to further the objective of reconciliation with Indigenous peoples. The Agency will be responsible for coordinating Crown consultations from the Planning phase to the issuance of the Decision Statement.

Our contributions underscore the need for in-depth consultation established in a manner that achieves our FPIC, meets the Crown's DtCA, and respects each MS-WTFN's sovereignty,

governance processes, and Rights. Engagement and participation of the MS-WTFNs in this IPD is non-binding and does not equate to consultation or endorsement for the NNW Project.²²

In order to carry out meaningful consultation we remain open to working with OPG and the Crown to undertake a MS-WTFNs-led Impact Assessment for the NNW Project. This would serve as the primary framework through which studies, reviews, and decisions are coordinated and integrated with the broader IA process. A MS-WTFNs-led assessment process (and studies) will allow us to assess areas of specific interest and concern to our communities, within our desired timelines. It will ensure our Knowledge, values, and priorities are centred when assessing real and potential adverse impacts and effects of the NNW Project. We trust that our findings will carry equal weight in shaping the designs, mitigations, and approvals, related to the NNW Project.

Real or potential impacts²³ identified by Rights-holding First Nations, will be considered alongside impacts identified by the Crown. Public engagement throughout the NNW Project's lifecycle will be conducted to inform OPG of real or potential impacts. OPG is committed to meaningfully partnering and consulting Rights-holding First Nations for all aspects of the NNW Project, outside of the IA.

²² The MS-WTFNs wish to make clear that this IPD is an OPG document. Most of the content has been produced by OPG. Our communities, and those who have contributed their Knowledge and experience, retain all ownership and control of MS-WTFNs' contributions. Our contributions should not be copied, replicated, or applied to any other context without our express permission. Our input to this IPD should not be construed or understood as support for the NNW Project. There is not agreement between our communities and OPG on several aspects of this IPD and its content, including but not limited to, statements regarding the need for the NNW Project, the contribution of this project to sustainability, or the lack of commitment to nuclear waste management planning. There may be differences between the values, understanding, and positions of OPG and of our communities on many of the topics and concepts found within this IPD. The willingness of the MS-WTFNs to contribute to the IPD should not be understood or construed as endorsement for the full content of the IPD.

²³ Throughout this IPD, OPG has used the language 'real and potential impacts' based on feedback received from the MS-WTFNs. This language is intended to reflect OPG's acknowledgement that the MS-WTFNs have identified that portions of the NNW site were subject to previous uses which has caused impacts to their communities; in particular, the eastern portion of the site was originally intended to be developed in the 1970s for an oil powered thermal generating station, and while construction was never completed, certain structures remain including a powerhouse and chimney stack; and the western portion is leased for partial agricultural development. In assessing the NNW Project, OPG will take into account these prior uses, which the MS-WTFNs consider to have caused 'real impacts', and in particular, the cumulative effects that may arise as a result of such prior activities. Further, OPG understands the MS-WTFN's perspective that the NNW Project will likely have certain impacts that may not be fully mitigated, and that such impacts are considered 'real impacts' by the MS-WTFNs as opposed to purely hypothetical impacts. By using the language 'real and potential impacts', OPG intends to respect its collaborative discussions with the MS-WTFNs and does not wish to convey that certain impacts are less significant, or will be assessed with less scrutiny, as compared to others.

1. Part A – General Information

Part A describes proponent information on OPG, general information on the NNW site, and outlines early engagement activities with Rights-holding First Nations and interested Indigenous communities as well as plans for ongoing engagement activities throughout the project lifecycle. Part A also describes past and future engagement activities with the public, other groups and government authorities, and broader regional and strategic assessments that may impact the NNW Project.

1.1 General Project Information

OPG has identified the OPG owned NNW site for the potential development of new nuclear power generation.

Project Name: New Nuclear at Wesleyville (NNW) in Port Hope
Sector: Energy
Location: Wesleyville, ON 100 km E from Toronto, ON
(2655 Lakeshore Road, Port Hope)

The NNW site, which is currently owned by OPG, has the potential to host up to approximately 10,000 MWe, which is enough to power the equivalent of ten million homes. OPG has identified the potential to construct and operate nuclear generating stations on both the eastern and western portions of the NNW (see Section 3.1.2 for the NNW site map).

OPG acknowledges that Port Hope and the NNW site are within the shared traditional and treaty territory of the Chippewa and Michi Saagiig Anishinaabeg Nations, collectively known as the WTFNs.

The Municipality of Port Hope, as the host community for the proposed new nuclear generating station, has expressed support for exploring the early stages of project planning and related IA and began working in conjunction with OPG's project team in early 2025. OPG is partnering with the Municipality of Port Hope to understand the priorities of the community. As a valued and important stakeholder, the Municipality will continue to play an active role in the future design and development of the NNW Project.

1.2 Proponent Information

OPG is wholly owned by the Province of Ontario with a core business of producing clean, reliable, safe, and low-cost electricity through the operation of a diverse portfolio of electrical generating stations. OPG generates approximately 50% of Ontario's electricity needs, with nuclear power contributing approximately 50% of OPG's energy mix.

The proponent, the name, and contact information of the primary representatives for the purpose of the IPD are provided below.

Proponent:	Ontario Power Generation (OPG)	
Corporate Contacts:	Program Owner	
	Title: Project Director	Margaret Mervin
	Title: Director, Nuclear Environment Projects Support	Cammie Cheng
	Contact Email:	Wesleyville@opg.com
	Project Website & Contact Form	https://www.opg.com/projects-services/projects/new-generation-opportunities/wesleyville/
	Toll Free Contact Number:	1-800-461-0034
Address:	Ontario Power Generation 1908 Colonel Sam Dr Oshawa, ON, L1H 8P7	

1.3 *Michi Saagiig Anishinaabeg* Nations of the Williams Treaties First Nations

The NNW site is situated within Lands and Waters which have been part of the *Michi Saagiig Anishinaabeg* homelands since *me'wzha*. Our people live in continuous relationship with the Lands, Waters, and all Relatives who both live near, and visit along, the north shore of *Gchi Nibi*, where the NNW Project is proposed. As the MS-WTFNs, we hold Rights to the area within and surrounding the NNW site.

Our Rights are recognized by the Crown through the pre-Confederation Treaty-making process and are upheld and protected by Section 35 of the Canadian Constitution Act. Our Rights were re-affirmed through the Williams Treaties First Nations Settlement Agreement of 2018, after nearly a hundred years of illegal Rights-denial which resulted from the Williams Treaties of 1923. In 2021, Canada enacted UNDA which embedded the principles of UNDRIP into Canadian positive law. We specifically note UNDRIP article 29 (2). Our communities must be willing hosts to the management, storage, or transportation, of any hazardous waste within our homelands and Treaty Territories, and our FPIC is required.

The pre-Confederation and Williams Treaties are silent on lakebeds and Waters within WTFNs' Territories. The CNSC is aware that the MS-WTFNs are claiming jurisdiction over the Lakebed of *Gchi Nibi*. The CNSC confirmed with CIRNAC that the Williams Treaties First Nations Settlement Agreement of 2018 does not cede the Lakebed of *Gchi Nibi* to the Crown. Until proven otherwise, the WTFNs have Aboriginal Title with all corresponding property rights, to all lakes and lakebeds within our Treaty Territories which remain under our jurisdiction. Any activities which impact those Lands and Waters requires our consent and meaningful consultation, not simply a process of sharing information (Adapted from MSIFN, 2024).

The WTFNs must be involved in any decisions regarding their homelands and Treaty Territories and consulted whenever their proven and asserted Rights may be adversely impacted.

The WTFNs include:

- Alderville First Nation
- Beausoleil First Nation
- Chippewas of Georgina Island First Nation
- Chippewas of Rama First Nation
- Curve Lake First Nation
- Hiawatha First Nation
- Mississaugas of Scugog Island First Nation

1.3.1 *Michi Saagiig Anishinaabeg* Ways of Knowing and Being, Values, Principles, and Laws²⁴

As *Michi Saagiig Anishinaabeg*, our ways of knowing and being are fundamentally relational and include, but are not limited to, responsibilities, cycles, and consequences related to holding and being in relationship with the Lands, Waters, and all Relatives within our homelands. In other words, our ways of knowing and being are primarily informed by our place. Our epistemologies are circular, familial, and intergenerational. Animals, Plants, the Elements, the Directions, and Celestial bodies, are all parts of our family – Our Relatives. What western science conceives as independent components within an external environment, our worldviews conceive of as very large and interconnected families. There is no word which aligns with the western concept of ‘environment’ in our dialects of *Anishinaabemowin*. The closest parallel concept within our worldview is closer to the western concept of ‘place’ – the Lands, the Waters, and all Relatives, their relationships, their sounds, the natural features, etc. We understand ourselves to be part of, and interconnected with, our place, rather than separate from it - we are all related.

As understood by Eliza Braden-Taylor, Cultural Interpreter at CLFN:

As Anishinaabeg, we recognize that we are part of the landscape and not something separate. We cannot be holistically healthy if we do not ensure the land is as well. One of the most impactful ways to connect with creation is to recognize our place in the ecosystem and understand the responsibilities we hold to protect creation, remembering that we have a role to play in the health of the land, the same way the land plays a role in our health. Our state of wellbeing is a direct reflection of the wellbeing of the land, and we cannot have true holistic health in one but not the other. What we do to the land, we do to ourselves.

As shared by Chief Taynar Simpson of AFN:

The Earth is our mother, the Moon is our grandmother, the bear, the wolf, the oaks and maples, our brothers and sisters, the rocks and stones our grandfathers. If humans treated the earth with the same love and respect with which most treat their mothers and grandmothers, with care, kindness, gentleness, and reverence, the health of our world would be much different.

²⁴ This section includes a selection of *Michi Saagiig Anishinaabeg* ways of knowing and being, including some of our values, principles, and laws, as conveyed in English by the contributors to this IPD. It must be noted that our ways of knowing and being are best understood in our dialects of *Anishinaabemowin*, as a lot of the meaning and understanding are lost in translation to English. Our ways of knowing and being are multi-faceted and include many different perspectives, which are to be considered and understood as collective truth. Knowledge is formed from collective and intergenerational experiences, observations, ceremonies, memories, stories, and other modalities.

The Anishinaabeg way of thinking is designed to protect, maintain, sustain, and uphold all life. It strives for what we refer to as MINO-BIMAA-DIZIWIN²⁵, which means “the good life”. Our people uphold many comprehensive Teachings, engage in many sacred ceremonies, and observe 7 guiding principles that sustain our relationships with and responsibilities to all our Relations while providing us with the tools we need to live MINO-BAMAADIZIWIN (a good life). The teachings of Honesty, Humility, Love, Bravery, Respect, Wisdom, and Truth form the basis of our cultural code of ethics.

As shared by Tom Cowie, Consultation Indigenous Knowledge Lead at HFN,

These teachings form the foundation of Michi Saagiig Anishinaabeg laws, roles and responsibilities and are viewed as gifts from the Creator, which are sacred laws, which the Michi Saagiig Anishinaabeg live by.

Lands and nature hold sacred and natural laws and principles for the Michi Saagiig Anishinaabeg. The lands and nature hold various natural laws and teachings that are highly respected, and which are depended upon for survival. Respect for all of Creation and all Relations, which sustain us and care for us is a sacred law. From this sacred law stems the responsibility of the Michi Saagiig Anishinaabeg to be care-takers of the lands and waters upon which they live. The Michi Saagiig Anishinaabeg connection with the land and nature is foundational to the values and customs of each Nation.

Our people were given the responsibility by the Creator to protect *Shkakimikwe*²⁶ and her *dooskweyaabin*²⁷ - the Waters. Water is life for us, as *Michi Saagiig Anishinaabeg*, as well as for all our Relatives. Our women are the caretakers of the Waters, and they hold the responsibility to ensure the Waters are protected and clean. We care for *Shkakimikwe* by engaging in a reciprocal relationship, taking only what is needed, and offering ceremony as an act of gratitude.

With all decisions made, we always consider the effects that choices will make on future generations just as our *Aanikoobigiganaanan* have done since *me'wzha*. Our Elders hold great

²⁵ Throughout this document, we have expressed our *Anishinaabemowin* phrase which is often associated with one of our original teachings – our code of ethics. It can be loosely translated as ‘a good way of living’, in English. As mentioned in the Glossary of *Anishinaabemowin*, we honour the different spellings and nuances of our language across our dialects and communities, which is reflected in how this word has been spelled a few different ways within this document, including *Mino Bimaadiziwin/ Bimaadizin/ Bamaadiziwin*.

²⁶ Throughout this document we have expressed our name for our Relative, which can be loosely translated as ‘Mother Earth’, in English.

²⁷ This is our phrase, in *Anishinaabemowin*, which expresses our understanding of the Waters (rivers, creeks and tributaries) that traverse *Shkakimikwe*. It can be loosely translated as ‘blood veins,’ in English.

Knowledge of *Shkakimikwe* which no one else possesses. Their Knowledge is held in their hearts and minds to be passed by oral tradition for the next generations.

1.4 Engagement with Rights-Holding First Nations and Interested Indigenous Communities

As Ontario's leader in electrical generation, OPG is committed to supporting the social and cultural well-being of the communities where it operates. OPG values the unique histories and cultures of Indigenous peoples and strives to meaningfully engage and work collaboratively with Rights-holding First Nations and interested Indigenous communities. Guided by OPG's core values and Reconciliation Action Plan (RAP) (Ontario Power Generation, 2024), OPG is dedicated to establishing strong, collaborative relationships based on respect, trust, and transparency²⁸, and engaging meaningfully with Rights-holding First Nations and interested Indigenous communities, supporting their priorities, and ensuring OPG operations contribute positively to Indigenous well-being.

OPG understands that positive relationships with Rights-holding First Nations and interested Indigenous communities, leads to better outcomes for the NNW Project and communities. OPG recognizes the important shifts that have occurred in recent years, including the Truth and Reconciliation Commission of Canada's *Calls to Action* (Truth and Reconciliation Commission of Canada, 2015), and Government of Canada's commitment to ensure that Canadian laws are consistent with UNDRIP, in consultation and cooperation with Indigenous peoples. OPG acknowledges the ongoing, whole-of-government efforts to implement UNDRIP into federal law through UNDA, including the important roles of IAAC, CNSC, and First Nations and other Indigenous communities in that process.

Through UNDA, the Government of Canada has affirmed UNDRIP as a universal international human rights instrument with application in Canadian law. The federal government has stated that UNDRIP provides a framework for reconciliation, healing and peace, as well as harmonious and cooperative relations based on the principles of justice, democracy, respect for human rights, non-discrimination and good faith.²⁹ UNDA sets out a statutory framework for the implementation of UNDRIP into federal law. The Supreme Court of Canada has stated that it is

²⁸ OPG has initiated discussions with the MS-WTFNs with the goal of entering into a co-development agreement, which would allow for real-time participation in decision-making for aspects of the NNW Project.

²⁹ [Backgrounder: United Nations Declaration on the Rights of Indigenous Peoples Act.](#)

“through this Act of Parliament that [UNDRIP] is incorporated into the country’s domestic positive law.”³⁰

OPG is closely monitoring the federal government’s efforts, in consultation with Indigenous peoples, to implement UNDRIP and to ensure that the laws of Canada are consistent with UNDRIP. Further, over the past several years, Canadian courts have begun to consider and interpret the impact of the UNDA on the constitutional principles of consultation and the Honour of the Crown.

OPG has engaged extensively with the 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 FPIC, as a mechanism to enable their meaningful participation in decisions that may impact their treaty and traditional territories. 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.

*As Michi Saagiig Anishinaabeg, we have existed on the back of the Big Turtle since me’wzha. Our Nation pre-existed the establishment of Canada. We have our own legal order and sovereignty, which flow from our ways of knowing and being. Our laws, Knowledge and ways of knowing and being are intrinsically connected to our place – the Lands, Waters, and all Relatives, within our homelands. We have Rights and responsibilities which are informed by our relationships with *Shkakimikwe* and all creation. We have Rights protected through the Treaty-making process with European governments, affirmed through the Canadian Constitution Act, and supported by UNDRIP, which subsequently became Canadian domestic law in 2021, through UNDA.*

The ability for our communities to freely exercise our Rights, including our right to self-determination, and the right to preserve our ways of life, have been disrupted by the assertion of Canadian sovereignty. This has been further exacerbated by the ongoing imposition and centering of western science and western knowledge. This disruption has included, but is not limited to:

- Disruption to our ability to freely engage in our relationships with our homelands, Treaty Territories, cultural landscapes, and Relatives.
- Disruption to our ability to freely participate in our spiritual and our cultural activities across our homelands and Treaty Territories.

³⁰ Reference re *An Act respecting First Nations, Inuit and Métis children, youth and families*, 2024 SCC 5 at para 15.

- Disruption to our ability to freely cultivate and disseminate our ways of knowing and being.
- Disruption to make decisions about our homelands and Treaty Territories.

Reconciliation between the assertion and imposition of Canadian sovereignty and the pre-existing, ongoing, sovereignty of Rights-holding First Nations, is at the centre of Canadian law and society today; it gives rise to the duty of Canada to give effect to the pre-existing sovereignty and legal order of the MS-WTFNs (and other Rights-holding First Nations), through Canadian laws, policies, and frameworks.

As stated within the *Final Report of the Truth and Reconciliation Commission of Canada*:

Reconciliation between Aboriginal and non-Aboriginal Canadians, from an Aboriginal perspective, also requires reconciliation with the natural world. If human beings resolve problems between themselves but continue to destroy the natural world, then reconciliation remains incomplete. This is a perspective that we as Commissioners have repeatedly heard: that reconciliation will never occur unless we are also reconciled with the earth (Truth and Reconciliation Commission of Canada, 2015).

The commitment of Canada to uphold Indigenous Rights through UNDRIP and FPIC, as well as to reconciliation, highlights the need to identify, understand, evaluate, analyze, avoid, mitigate and accommodate impacts to our Rights. It is a requirement of the IAA to uphold our Rights through UNDRIP and FPIC. The IA also presents an opportunity to advance reconciliation between our communities and the Crown, by creating equal space for, as well as, giving equal weight to, our Knowledge, data, views, positions, and decision-making authority. We assert that this must happen through Indigenous-led frameworks. In order to carry out meaningful consultation and ensure our Knowledge, values, and priorities are carried through the IA and project planning phases, we remain open to working with OPG and the Crown to undertake a MS-WTFNs-led Impact Assessment for the NNW Project.

OPG is committed to supporting MS-WTFNs' approaches to identify any and all real or potential impacts of the NNW Project to MS-WTFNs' Rights. OPG will continue to offer to work collaboratively with MS-WTFNs to identify, develop, and implement mitigation and accommodation measures to avoid, offset, and/or mitigate, for any real and potential impacts.

The MS-WTFNs remain open to working collaboratively with OPG to identify and avoid needless³¹ and unjustified real and potential adverse impacts and effects to our Relatives, to our Rights and to the wellbeing of our people.

OPG's commitment includes engagement and outreach with Rights-holding First Nations and interested Indigenous communities. As part of these activities, OPG provides pathways for capacity-building and development of equity partnerships with Rights-holding First Nations on OPG's new generation projects.

OPG's RAP was launched to support the Truth and Reconciliation Commission's *Final Report's* Call to Action #92 (2015), which urges corporations in Canada to help create a better future. In June 2024, the RAP has been refreshed by leaders across the company and incorporates feedback from Indigenous communities and businesses and focuses on maximizing economic impact on the traditional territories where OPG operates. The five pillars in the plan include:

1. Leadership – Commit to reconciliation as a journey and track progress on accountability with metrics and targets around commitments.
2. Relationships – Build positive and mutually beneficial relationships with Indigenous communities and peoples based on respect and understanding.
3. People – Create an engaged and inclusive workforce that reflects the broad diversity of Indigenous communities and peoples across our company.
4. Economic Empowerment – Advance economic reconciliation with Indigenous Nations and communities and businesses through meaningful engagement, collaboration and partnership.
5. Environmental Stewardship – Be a trusted partner in environmental stewardship and an ally in addressing climate change.

Sections of this IPD that contain information regarding engagement undertaken with Rights-holding First Nations and interested Indigenous communities on the NNW Project include:

- Section 1.4.1 – identification of Real and Potentially impacted First Nations and interested Indigenous communities
- Section 1.4.4 – summary of initial comments on key issues and concerns specific to each Rights-holding First Nation and interested Indigenous community.

³¹ We have chosen to include the western term 'needless' in this instance, as it most closely corresponds to our understanding in *Anishinaabemowin*. The determination of what constitutes 'needless' with respect to the real and potential adverse impacts and effects of the NNW Project would need to be defined and evaluated collaboratively between OPG, the Agency, the CNSC, and our communities.

- Section 1.4.5 – OPG’s plan for engagement that will occur throughout the life of the NNW Project
- Section 3.3 – NNW Project proximities to lands used for traditional purposes by Indigenous peoples of Canada including reserve lands
- Section 5.5 – a description of the real and potential impacts to Indigenous peoples of Canada (preliminary).

Consultation and engagement activities, as well as assessment activities, will be determined by the requirements of Rights-holding First Nations and interested Indigenous communities and informed and guided by First Nation and Canadian governance and knowledge systems, including the key principles provided in CNSC’s REGDOC 3.2.2 Indigenous Engagement (Canadian Nuclear Safety Commission, 2022). First Nation governance, including laws, policy, frameworks, as well as cultural principles and customs will inform the assessment. A preliminary overview of the MS-WTFNs’ consultation framework is outlined in section 1.4.2.

1.4.1 *Real and Potentially Impacted Rights-holding First Nations and Interested Indigenous Communities*³²

The WTFNs are Rights-Holding First Nations who may experience new impacts if the NNW Project were to proceed. The WTFNs include:

- Alderville First Nation
- Beausoleil First Nation
- Chippewas of Georgina Island First Nation
- Chippewas of Rama First Nation
- Curve Lake First Nation
- Hiawatha First Nation
- Mississaugas of Scugog Island First Nation

³² We have chosen to include the phrase ‘real and potentially impacted Rights-holding First Nations and interested Indigenous communities’, which better reflects the lived realities of our people. We assert that adverse impacts and effects associated with the NNW Project are already occurring to our communities and our Relatives, prior to the completion of an IA (e.g. borehole drilling, MET tower installation etc.). Such impacts and effects are exacerbated by OPG’s ownership of the site, which continues to disrupt our relationships and direct connections with the Lands, Waters, and all Relatives that live within the NNW site and surrounding areas. This includes, but is not limited to, aspects of our landscape that were specifically protected by Treaty. As such OPG and the MS-WTFNs have agreed to use the term ‘real and potentially impacted Rights-holding First Nations and interested Indigenous communities’ within this document in place of the Agency’s term ‘Indigenous groups that may be affected by the project.’

OPG will also work with potentially impacted interested Indigenous communities in proximity to the NNW Project and who have previously expressed interest in nuclear projects, including:

- Wendat Nation (for archaeological purposes)
- Métis Nation of Ontario
- Mississaugas of the Credit First Nation
- Mohawks of the Bay of Quinte First Nation
- Six Nations of the Grand River

1.4.1.1 *Michi Saagiig Anishinaabeg*

As *Michi Saagiig Anishinaabeg*, we exist in familial harmony with our Relatives – who live within, or visit, our homelands and Treaty Territories – in perpetuity, as it has been since *me'wzha*. We value all our Relatives and have an obligation to continue to steadfastly maintain our responsibilities, which includes ensuring the health and integrity of our Relatives and communities, for generations to come.

As sovereign Nations, we hold Inherent Rights which include our right to make and be involved in decisions about our homelands and Treaty Territories. Our Inherent Rights include our right to make decisions about our future, about the future of our children, and about the future of our grandchildren, for generations to come. We have the right to protect and preserve our culture, our spirituality, and our ways of knowing and being, which are intrinsically connected to the Lands, Waters, and all Relatives, that are, or may be, adversely impacted or effected by the NNW Project.

Members of our communities continue to live, work, harvest³³, and maintain relationships with the Lands, Waters, and all Relatives throughout our homelands and Treaty Territories, including those within or near the NNW site. Our communities continue to exercise our Rights to harvest the Lands and Waters surrounding the NNW site. We fully intend to protect, preserve, and improve, the current conditions of the NNW site and surrounding areas so that future generations may once again reconnect with that part of our homelands.

As recorded by *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban)³⁴:

The traditional homelands of the Michi Saagiig encompass a vast area of what is now known as southern Ontario. The Michi Saagiig are known as “the people of the big river mouths” and were also known as the “Salmon People” who occupied and

³³ We have chosen to include the term ‘harvest’ within this document which we mean to encompass many activities including, but not limited to hunting, fishing, trapping, planting, cultivating, and gathering gifts from our Relatives for sustenance, medicine, ceremony, craftsmanship, ingenuity, or other purposes.

³⁴ *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban authored *Michi Saagiig Anishinaabeg Background-Historical Context* in 2017, which was provided by CLFN for the purposes of preparing MS-WTFNs contributions to this IPD.

fished the north shore of Lake Ontario where the various tributaries emptied into the Lake. Their territories extended north into and beyond the Kawarthas as winter hunting grounds on which they would break off into smaller social groups for the season, hunting and trapping on these lands, then returning to the Lakeshore in spring for the summer months.

The Michi Saagiig were a highly mobile people, travelling vast distances to procure subsistence for their people. They were also known as the “Peacekeepers” among Indigenous nations. The Michi Saagiig homelands were located directly between two very powerful Confederacies: The Three Fires Confederacy to the north and the Haudenosaunee Confederacy to the south. The Michi Saagiig were the negotiators, the messengers, the diplomats, and they successfully mediated peace throughout this area of Ontario for countless generations.

Michi Saagiig oral histories speak to their people being in this area of Ontario for thousands of years. These stories recount the “Old Ones” who spoke an ancient Algonquian dialect. The histories explain that the current Ojibwa phonology is the 5th transformation of this language, demonstrating a linguistic connection that spans back into deep time. The Michi Saagiig of today are the descendants of the ancient peoples who lived in Ontario during the Archaic and Paleo-Indian periods. They are the original inhabitants of southern Ontario, and they are still here today.

1.4.1.2 Alderville First Nation

AFN is a proud and unified self-governing nation which strives collectively to enhance the quality of life for all generations. AFN aims to develop and maintain a sustainable, self-reliant economy that is built upon the traditional values of our people which includes a close relationship to the Land and Waters through which we exercise our Rights to harvest.

AFN is a thriving community that is rich in heritage and native culture. We are located in South-Central Ontario, Canada. AFN is intersected by County Road 45, and is located on the south side of Rice Lake, Ontario, approximately 30 km north of Cobourg. AFN has been home to the *Mississauga Anishinaabeg* of the Ojibway Nation since the mid-1830s. Before that time the people lived in their traditional lands around Bay of Quinte (Grape Island) but with the influx of refugee settlement after the American Revolution their existence found itself under increased pressure.

To this day, community members hunt, trap, harvest, and gather foods and medicines, perform and engage in ceremony upon these Lands and Waters that we now call southern Ontario. These activities are fundamental to our ability to be Mississauga, to express our identity as a people, and to continue to thrive into future generations. The integrity and health of the Lands and

Waters are essential for Mississauga peoples to continue to be *Michi Saagiig Anishinaabeg* – they are integral to our culture, to who we are, and to who we become. And so, we hold the environment, or as we know her – Mother Earth, in the highest regard, with the greatest respect, and with an unconditional love. This principle forms the basis upon which our governance is structured as a people and guides us in all decision-making processes which ultimately strive for a balanced and sustainable future for our community.

In keeping with our reverence and respect for the environment, AFN hosts the Black Oak Savanna and Tallgrass Prairie, a 50-hectare site on the edge of the Oak Ridges Moraine. The NNW site is now the largest intact tract of native grassland habitat left within the Rice Lake Plains and Eastern Ontario and plays a key role in the future restoration of this unique eco-region by acting as a pristine source for native plants and seed.

AFN is a cultural partner of the *Michi Saagiig* (Mississauga) Nation, with Traditional Territories expanding through most of southeastern Ontario, including lakebeds, tributaries, and watersheds. AFN is signatory to the Williams Treaties of 1923, which after 90 years of dispute came to a final settlement agreement in 2018 which reaffirmed our pre-Confederation Treaty Rights to harvest.

The courts recognize that Indigenous communities have constraints which can lead to inadequate opportunities for them to meaningfully participate in consultation. These constraints include, but are not limited to, personnel capacity, funding capacity, and internal governance structures that move at a different pace than federal or provincial teams.

1.4.1.3 Curve Lake First Nation

The community members of CLFN are *Anishinaabeg* from the Mississauga Nation (*Michi Saagiig Anishinaabeg* Nation). Presently, we have approximately 2,800 registered, with roughly a third living within our reserve lands. CLFN is located roughly 25 kms northeast of Peterborough, Ontario. Known in our language as *Oshkiigmong*, our reserve lands are situated on a peninsula between Chemong Lake and Buckhorn Lake and consist of a mainland peninsula and large island (Fox Island). CLFN co-owns smaller islands located throughout the Trent Severn Waterway system. The total land base of the First Nation is approximately 900 hectares. The community members of CLFN have long had a deep and meaningful connection to the land in our beautiful Territory, fostered through the hunting, fishing, gathering, harvesting, and ceremony that strengthens our relationship with each other and to the land that sustains us.

CLFN is signatory to many of the pre-Confederation Gunshot Treaties, Treaty 20 of 1818, and the Williams Treaties of 1923. It was the last Treaty signed in Canada, covered almost 13 million acres and was very controversial. After 90 years of dispute between the Crown and the WTFNs, a final settlement agreement was reached in 2018 which reaffirmed our pre-Confederation Treaty

Rights. The settlement agreement formally recognizes the pre-existing Treaty harvesting Rights of our community members to hunt, trap, fish and gather for food, social and ceremonial purposes within portions of our Traditional Territories and Treaty areas.

We are a deeply spiritual people and bring this spirituality into our personal lives, as well as the work we do for those outside our community boundaries. We are a community committed to sharing cultural teachings, nurturing cultural awareness and appreciation, and promoting a sense of cultural pride. As a traditionally migratory people, *Anishinaabeg* and “Curve Lakers” have had a deep connection and awareness of the land within our Territory and beyond.

Today, CLFN is a forerunner in Indigenous education, repatriation efforts, traditional language revitalization, cultural resurgence, land-based learning and conservation efforts. We have strong Lands & Consultation departments that ensure that those engaging in the land on our Territory do so respectfully, and that the land is left better than when we came to it. We are a strong and proud community, dedicated to upholding our traditional teachings and protecting the gifts of this land for all generations to come.

1.4.1.4 Hiawatha First Nation

HFN is located on the north shore of Rice Lake east of the Otonabee River. We are found in the Otonabee Township approximately 30 kilometres south of Peterborough. Our First Nation consists of approximately 2145 acres of land.

Our values grow from the culture from which we are born into and live with. Our beliefs and attitudes emerge from these values. As *Michi Saagiig* people from the Mississauga Nation, we try to live a healthy way of life "*Mino Bimaadizin*" through the teachings passed down from ancestors. These teachings include the Seven Grandfathers given to us by the Creator.

HFN is a cultural partner of the *Michi Saagiig* (Mississauga) Nation, with Traditional Territories expanding through most of southeastern Ontario, including lakebeds, tributaries, and watersheds. HFN is signatory to the Williams Treaties of 1923, which after 90 years of dispute came to a settlement agreement in 2018 which reaffirmed our pre-Confederation Treaty Rights to harvest.

1.4.1.5 Mississaugas of Scugog Island First Nation

The MSIFN community is located on the shores of Lake Scugog in Durham Region, Ontario. MSIFN has a long history in this part of Ontario and is a cultural partner of the *Michi Saagiig* (Mississauga) Nation, with traditional Territories expanding through most of southeastern Ontario, including lakebeds, tributaries, and watersheds. Lake Ontario and its Lakebed adjacent to the lands covered by the *Michi Saagiig Anishinaabeg* pre-Confederation and Williams Treaties, and south to the border with the United States, are unceded Lands and Waters. Within these Treaty and unceded Territories, MSIFN's priority is the protection and preservation of the Lands, Waters, wildlife, and fisheries that we rely on.

MSIFN formerly occupied about 800 acres of Reserve Lands situated near the north end of Scugog Island. The Historic Atlas of Ontario County describes the Mississauga as having occupied “villages or lodges” on the Lake from a “very remote time”. They used the mainland shores of Lake Scugog, harvesting wild rice, before historic damming of the Lake and raising of water levels in 1828-1834 which contributed to their temporary relocation to Coldwater and Mud Lake. The original Reserve Lands purchased in 1843 included 200 acres of Lot 7, Concession 11 which is not today part of the MSIFN Reserve Lands.

Original vegetation on Scugog Island was hardwood forest, the well-drained sites supporting Sugar Maple, Black Maple, Beech, Ironwood, and Basswood; the areas of imperfect and poor drainage were dominated by Elm, Ash, Soft Maple, and White Cedar. The south end of Scugog Island was covered by a Tamarack forest when white settlers arrived.

Much of the rice harvesting activity of the MSIFN peoples was focused along the south shore of Lake Scugog. This would have been the largest stretch of relatively open, shallow water suitable for rice beds prior to historic damming of the Scugog River. After the damming, according to Cartwright’s circa 1875 map, there were extensive beds of wild rice on both the west and east sides of the northern part of Scugog Island.

Scugog Carrying Place is a First Nation trail that connected Lake Ontario to Lake Scugog and Lake Simcoe. It formed part of an extensive pre- and post-contact transportation network over land and water connecting Georgian Bay and the Trent River to Lake Ontario. These routes facilitated seasonal travel and harvesting of resources over long distances by *Anishinabek* peoples of the area (Lake Scugog connected to the Kawartha Lakes and Lake Simcoe via the Beaver River). The Scugog River and Lake formed part of a northern route to hunting Territories in what we now know as Muskoka and Haliburton regions and much of Algonquin Park. Karcich (2013) reports that until 1829 the Mississauga had a camp at the head of the Scugog Carrying Place which now is Port Perry.

MSIFN is signatory to several pre-Confederation Treaties as well as the Williams Treaties of 1923, which after 90 years of dispute came to a settlement agreement in 2018 that reaffirmed the pre-Confederation Aboriginal and Treaty Rights to harvest. MSIFN contested Crown hunting regulations into the 1980s when Supreme Court decisions began recognizing Aboriginal harvesting Rights.

MSIFN is also signatory to the Framework Agreement for First Nations Lands Management, the First Nations Fiscal Management Act, and other political Aboriginal arrangements all of which support our Inherent Right as a self-governing authority.

MSIFN's reserve community is less than 50 km from the proposed NNW Project, and members have expressed concerns and uncertainty surrounding the safety, management, and security of the

existing and proposed nuclear facilities and operations within their Treaty area, regulated by the CNSC. MSIFN members, employees, and businesses are active in and around the NNW site in many ways.

Nuclear safety is paramount to MSIFN. Nearly every aspect of the nuclear fuel lifecycle occurs within our Territory, except for uranium mining. These post-colonial activities will continually impact our community. It is the future generations who will bear this burden. The Crown and OPG have legal obligations to ensure our safety.

MSIFN's Chief and Council, in conjunction with their teams, act as their community's regulatory body. The process MSIFN must undertake to discharge their legal obligations to their community members and community is complex and not something that the Crown can legally rush or disregard. UNDRIP exists to protect this, and our duty is to ensure it is upheld.

1.4.2 Consultation Frameworks of the MS-WTFNs

Engagement activities undertaken by OPG with respect to the MS-WTFNs will be guided by the governance, including the laws, customs, policies, and practices of each MS-WTFN. Engagement activities will be further guided by the leadership and members of each MS-WTFN. It is important that consultation and engagement activities be guided by ceremony and other customs and cultural practices, where appropriate.

Meaningful consultation is a process grounded in the Honour of the Crown and the DtCA, which arises when the Crown contemplates conduct that may or potentially adversely affect Inherent, Aboriginal, and Treaty Rights recognized and affirmed under Section 35 of the Canadian Constitution Act.

Consultation is not about retroactive validation or catching up on decisions already made. It must be proactive, iterative, and continuous, with the MS-WTFNs at the table from the outset and throughout all phases of planning, assessment, decision-making, implementation, and follow-up. This process must also respect and uphold other processes and items that are brought forward as they develop through project and IA processes. This includes the ability to influence and change proposed project methods and outcomes.

Meaningful consultation must, at minimum:

- be defined and formalized through agreement between the MS-WTFNs, the Crown, and the proponent
- begin as early in the process as possible and continue for the life of the activities, process, and/or project

- be as transparent as possible and based on the sharing of full, relevant, and timely information in a format that is understandable and accessible
- include adequate funding, technical support, and flexible, co-defined timelines that align with the governance and decision-making processes of the MS-WTFNs, and support proper community consultation
- acknowledge the jurisdiction, control, and responsibilities of the MS-WTFNs to make decisions regarding our homelands and Treaty Territories. This includes decision-making over the process itself, its outcomes (including determining level of impact and required mitigations), and the final decision from the process. This includes respecting the MS-WTFNs' FPIC
- be culturally relevant and conducted in a way that respects the laws, customs, values, Knowledge systems, and decision-making timelines of the MS-WTFNs
- involve genuine Nation-to-Nation³⁵ dialogue that seeks to resolve and address concerns in a manner that reflects the values and priorities of the MS-WTFNs, rather than a checkbox exercise
- be accommodation-oriented, where real and potential adverse impacts and effects that are identified are meaningfully addressed. Such accommodations must be developed in collaboration with the MS-WTFNs
- consider, mitigate, avoid, and monitor real and potential impacts to future generations and the integrity of the Lands, Waters, and all Relatives, ensuring that decisions made today protect our communities' ability to exercise Rights and responsibilities for generations to come. This must be done through processes co-led with the MS-WTFNs
- seek to bring benefits to the MS-WTFNs in the manner identified by our communities.

The following sections provide an overview of certain facets of our laws, responsibilities and customs that must inform the engagement and consultation related to the IA and the NN W Project. It is important to note that this is not an exhaustive list, and that engagement activities will evolve to be informed and guided by all relevant frameworks, legislation, policies, customs, and best practices, as determined applicable by each of our communities.

³⁵ We have chosen to incorporate the western phrase 'Nation-to-Nation', throughout this document, to refer to partner-based dialogue between MS-WTFNs, the Crown, and OPG based on equal voices and decision-making authority.

1.4.2.1 Our Ways of Knowing and Being: *Michi Saagiig Anishinaabeg* Laws, Governance and Customs

As *Michi Saagiig Anishinaabeg*, we have our own ways of knowing and being, which include, but are not limited to, our own responsibilities, values, principles, laws, and Rights. These facets of our ways of knowing and being flow from our relationships with the Lands, Waters, and all Relatives, found within our homelands and Treaty Territories. Our Knowledge systems and legal orders have never ceased to exist or be in operation, but have been overlooked, dismissed and oppressed through the ongoing assertion and primacy of western knowledge and Canadian sovereignty, through colonization.

We hold Inherent Rights which include our right to make and be involved in decisions about the Lands, Waters, and all Relatives, within our homelands and Treaty Territories. We have the right to make decisions about our future, the future of our children, and the future of our grandchildren, for generations to come. We have the right to protect and preserve our identity and ways of knowing and being, which are intrinsically interconnected with our homelands (Lands, Waters, and all Relatives), including those that are, and will be, potentially adversely impacted and effected by the proposed NNW Project.

Each of our communities are self-governed and have their own internal customs and processes which must be respected. The Chiefs and Councils of the MS-WTFNs are directly responsible for all aspects of life for the members of each community. There are formal processes which must be followed, not unlike any other government. This may include holding community meetings to inform and gather feedback, seeking guidance from our Elders and Knowledge holders, and ensuring that our Rights are protected. Each matter before the Chiefs and Councils of our communities has its own timeline and process based on our responsibilities. Collaboration with OPG, the Agency, and CNSC are valued; However, our governance processes cannot be disregarded.

As Nations who are signatories of the Williams Treaties First Nations Settlement Agreement of 2018, we also have responsibilities to uphold the WTFNs' shared Rights. The WTFNs are currently consulting on the concept of a shared governance structure.

1.4.2.1.1 First Nation Law

First Nation collective governmental bodies, such as the Assembly of First Nations and the Chiefs of Ontario, have passed collective laws regarding natural resources and related consultation, including specific resolutions regarding water. These laws will inform, and guide, consultation and engagement activities undertaken by OPG, through direction from the MS-WTFNs, in relation to the NNW Project.

1.4.2.1.1.1 Assembly of First Nations Resolution on First Nation Treaty and Inherent Rights to Water (2019)

In 2019, the Assembly of First Nations passed a resolution which underscored UNDRIP's assertion that First Nations have the right to maintain their cultural and spiritual relationship with waters and coastlines. It affirmed that First Nations, in Canada, have the right to determine and develop priorities and strategies for the development and use of their Lands and Waters. It reiterated that proponents who are seeking to develop Lands or Waters or undertaking any activity which may impact a Nation's Lands or Waters, should obtain each Nation's FPIC. The resolution also affirms that such activities should accommodate the impacted Rights of First Nations, and take all appropriate measures to mitigate adverse environmental, economic, social, cultural and spiritual impacts.

1.4.2.1.1.2 Chiefs of Ontario Water Declaration (2008)

In 2008, The Chiefs of Ontario issued a 'Water Declaration' which underscored the importance and centrality of water to First Nations people, their unique roles and responsibilities towards it, and the Inherent Rights and jurisdictions of First Nations over the waters, which were never given up or included in Treaties with the Crown.

1.4.2.1.1.3 Curve Lake First Nation Declaration Regarding *Manoomin* (2020)

In 2020, Curve Lake First Nation released a declaration acknowledging the sacredness and importance of *manoomin*, as a significant food source and central component of harvesting, culture, spirituality and social and economic life. The Declaration acknowledges the impacts of the rapid decline of the species in recent years and underscores the *Michi Saagiig Anishinaabeg* revitalization efforts and importance of food sovereignty as reconciliation.

1.4.2.2 Treaties

The NNW site is located on Lands which are covered by pre-Confederation Treaties signed between the Crown and *the Michi Saagiig Anishinaabeg*, as well as the Williams Treaties of 1923, and the Williams Treaties First Nations Settlement Agreement of 2018. These Treaties, which are Nation-to-Nation agreements, were negotiated between Crown actors and our communities, and include specific provisions and promises, which are legally binding. Through the longstanding advocacy by First Nations, including our communities, modern Canadian courts have agreed and established that Treaties, understood through their historic context and intentions, must be upheld with honour and integrity by the Crown. This includes Crown actors and agencies, such as those with delegated duties or entities undertaking activities that will be relied upon by the Crown, as part of the fulfillment of the Crown's DtCA. Those Treaties signed by our communities, including their historic context and intentions will inform and guide the consultation activities undertaken by OPG in relation to the NNW Project.

As shared by Tom Cowie, Consultation Indigenous Knowledge Lead at HFN, the *Anishinaabemowin* term in our dialect, which most closely aligns with the English term ‘treaty’, is *Zagaswe*, and includes the concept of sharing:

Zagaswe – I would say this word, like ‘I share a story’ or ‘we share food’. That is the way we looked at it. When the Crown was asking for land to share, there wasn’t the sense of them amassing land to exploit. Our Chiefs had the responsibility to ensure everyone had what they needed, even if they gave up their own things to make sure everyone had what they need. So, there was a misconception of the Crown, when they asked to share the land for their people to have a place to live. Understanding wealth wasn’t about how much you had, but rather how much you give.

Our people pursued Treaties with the Crown as an act which flowed from our responsibilities to our Nation, and to our Relatives. We sought to protect our identity, our values, and our ways of life, all of which are derived from our place, in a way that was understandable to European governments; We sought to convey our relationships with and responsibilities to the Lands, Waters, and all Relatives. Pursuing Treaties with the Crown was an act of our sovereignty and of our right to self-determination. It was guided by our relationships and interconnectedness to *Shkakimikwe*, and our desire to build relationships with and share the Lands with settlers, in a manner consistent with our teachings and understanding of the act of sharing.

1.4.2.2.1 Pre-Confederation Treaties and the Williams Treaties (1923)

The pre-Confederation Treaties, which were established between our people and the Crown, were negotiated with the intention of sharing our Lands with settlers and establishing a Nation-to-Nation relationship between governments. The negotiations of these Treaties were understood at the time, by our people, within the context of needing to protect and preserve our way of life, our spirituality, values, culture, and economy, as well as to balance our relationships and connections with our homelands, with the desire of settlers to farm the fields and make use of the soil (McNab, 1979) (Whetung-Derrick, 1976)³⁶.

Our Treaties were not understood, or anticipated by our people, to impact our relationships with our Relatives, including but not limited to, *Gchi Nibi*, its shorelines, the shorelines of its tributaries, river and creek mouths, islands, or peninsulas. Our Treaties were not understood or anticipated to disrupt or extinguish our ability to harvest, gather, live, and occupy our place.

Our Treaties expressly reserved our Rights to all shorelines, islands, peninsulas, maple stands, rice beds, wetlands and beaver houses within our homelands, as well as to the creek and river mouths of tributaries that flow into *Gchi Nibi*. Harvesting and establishing seasonal settlements were also reserved along every shore, reiterating that settlers were granted limited access to the

³⁶ *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban and Tracey Taylor, Cultural Administrator at CLFN both shared similar stories and teachings related to this understanding of our Treaties.

Lands for farming purposes only (Williams-ban, 2018) (Mikokomon Paper, 1927 as in McNab, 1996). Crown records confirm that such promises were given (McNab, 1996).

Despite these Treaty promises, our people were pushed out of our summer grounds along the north shore of *Gchi Nibi*, as they were favoured by settlers and Loyalists; We were illegally denied access to our own Lands and Waters, despite the Treaty promises to the contrary. Our circumstances were further exacerbated by the imposition of Crown and private ownership, despite the promises and protections afforded to us within our pre-Confederation Treaties. In 1923, the Crown imposed the Williams Treaties, which were implemented without negotiation, and under the false pretense of resolving our long-standing grievances with the Crown's failure to honour the original intention and understanding of the pre-Confederation Treaties. The Williams Treaties of 1923 included a devastating 'Basket Clause' which denied our Inherent Rights to fish, hunt and harvest within our homelands. The Basket Clause, which was intended by the Crown to 'extinguish' our Rights, disrupted our relationships with the Lands, Waters, and all Relatives. The Basket Clause impacted our ways of knowing and being, including but not limited to, our ability to pass our Knowledge, language, culture, spirituality, and ways of life to future generations. It also had devastating effects to our ability to care for our families and communities, as it became illegal for us to hunt, fish, gather, forage, and harvest our traditional foods and medicines. This also had severe impacts on our well-established economies, ingenuity, and craftsmanship.

As shared by *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban):

The 1923 Williams Treaty was devastating to my people. I witnessed the trauma and the fear that was put on my people that were trying to live on the land. They lived daily watching over their backs and trying to maintain their lifestyle as Michi Saagiig Nishnaabeg. The government with the implementation of the "basket clause" was a sneaky way to get rid of us as people who enjoyed this part of our great land. These old men I hung around with such as Madden and Jimkoons lived a life where they had to live by sneaking around and feeling like they were "poachers." They resorted to catching other animals and harvesting those things that the government did not feel were part of those things they need to "protect" from us. These things included small animals, such as the groundhog and the porcupine, the muskrat for meat and other things were also eaten because we were forbidden from hunting game like deer (which was our staple) and we were also prohibited from fishing from October 15 to July 1 every year under provincial statutes. This process was devastating to people that lived on the land. They faced starvation. But you know, I witnessed where they would circumvent some of these things brought by the government. Such as posting of permanent Game Wardens on

our tri-Lakes here – Buckhorn, Chemong and Pigeon. That way we were able to survive somehow but I see where it was an undignified way of living on the land, an adjustment that didn't need to be made. It was particularly difficult to obtain food in the winter time and since fishing was prohibited it became a time of great suffering. People had to run up an account at the Whetung General Store to tie them over until the muskrat season opened in April. So it was November to April that was quite difficult. Some people still had to fish and would do it at odd hours and would have to sneak around and not be seen. This is a very difficult thing to do in the winter time. As you know, anyone standing on the ice can be seen for miles and this is what the Game Warden would look out for and go out and chase my people. There were many stories told of how my people escaped the Game Warden. There were many stories of our people being caught, and going to court in Peterborough to be given fines for fishing out of season. Imagine the indignity on our people when they came in front of the Canadian courts (Williams-ban, 2018).

1.4.2.2 Williams Treaties First Nations Settlement Agreement (2018)

The Williams Treaties First Nations Settlement Agreement of 2018 re-affirmed the MS-WTFNs' pre-existing Rights to freely fish, hunt, gather and harvest within portions of our Treaty Territories. It acknowledged our collective right to practice our culture, spirituality and way of life. Despite the recognition of our Rights and a Statement of Apology³⁷ issued by Canada and Ontario, the original promises and intentions of the pre-Confederation Treaties go unfulfilled, leaving our communities with many issues facing the preservation of our cultural, spiritual and economic longevity and way of life.

1.4.2.3 United Nations Declaration on the Rights of Indigenous Peoples (2007)

In 2007 the United Nations General Assembly adopted UNDRIP which established a minimum international standard for the survival, dignity, and wellbeing of Indigenous peoples globally and is a roadmap for reconciliation. UNDRIP recognizes and affirms the Rights of Indigenous peoples to self-determination, self-government, and the ability to make decisions about their lands, waters, territories, and resources. It recognized and affirmed Indigenous peoples' Rights to practice their culture, language and spirituality. In April 2024, the Supreme Court of Canada issued a direction which included an acknowledgement that UNDRIP became domestic positive law (*Reference Re: An Act respecting First Nations, Inuit and Metis children, youth and families*, 2004 SCC 5).

It is the expectation of the MS-WTFNs that OPG, the Agency, and CNSC will ensure that the principles of UNDRIP inform consultation and engagement with our communities on all aspects

³⁷ <https://www.rcaanc-cirnac.gc.ca/eng/1542393580430/1542393607484>

of the NNW Project, including any decisions, or future regulatory processes related to construction, operation and decommissioning. We wish to highlight UNDRIP Article 29(2) which states that "*States shall take effective measures to ensure that no storage or disposal of hazardous materials shall take place in the lands or territories of Indigenous peoples without their free, prior and informed consent.*" It is our expectation that OPG, the Agency and CNSC will ensure that in-depth consultation takes place in a manner that achieves each MS-WTFN's FPIC.

1.4.2.3.1 Free, Prior and Informed Consent

Critical to the planning of consultation and engagement activities, is the right of First Nations to FPIC. This principle flows from the Right to self-determination and self-government and underscores Indigenous peoples' Right to consent to actions that affect their lands, waters, territories, or rights. FPIC was included within UNDRIP and as such became domestic positive law in Canada.

FPIC is the foundation for creating any long-term relationship. A healthy and positive long-term relationship needs a balance which respects the position of each party and one that is built on trust.

1.4.3 Summary of Engagement with Rights-Holding First Nations and Interested Indigenous Communities to Date

OPG is dedicated to building strong, collaborative relationships based on respect, trust, and transparency, engaging meaningfully with Rights-holding First Nations and interested Indigenous communities, supporting their priorities. OPG has been working with Rights-holding First Nations and interested Indigenous communities through early engagement of the potential NNW Project. OPG will continue to support Rights-holding First Nations' and interested Indigenous communities' participation in the IA in the manner and to the extent determined by Rights-holding First Nations, based on their priorities, needs and ways of knowing.

Preliminary discussions have been initiated with the WTFNs who have established and asserted Aboriginal and Treaty rights to the area of the NNW site, including the MS-WTFNs (AFN, CLFN, HFN, and MSIFN), as well as the Chippewa Nations of the WTFNs (Beausoleil First Nation (BFN), Chippewas of Georgina Island First Nation (CGIFN), and Chippewas of Rama First Nation (CRFN)). Communications have also been initiated with interested Indigenous communities including Wendat Nation, Métis Nation of Ontario (MNO), Mississaugas of the Credit First Nation (MCFN), Mohawks of the Bay of Quinte (MBQ), and Six Nations of the Grand River (SNGR). The following summarizes engagement activities undertaken to date for the NNW Project. A summary of engagement undertaken with the public is included in Section 1.5.1.

On July 10, 2023, the Ontario Ministry of Energy and Mines (MEM) asked the IESO in collaboration with OPG and Bruce Power to develop a feasibility study and business case for future nuclear generation and report back to the MEM in December 2024. Utilizing existing relationship tables, on January 23, 2024, OPG held an initial conversation with HFN and CLFN around the IESO *Pathways to Decarbonization* Report and Need for New Generation and the feasibility study.

On August 26, 2024, OPG along with CLFN and MSIFN visited the NNW site to provide an opportunity for the Nations to visualize the area as well as continue to build relationships with OPG. A subsequent visit to the NNW site occurred on October 22, 2024, with AFN.

OPG is willing and able to accommodate site visits from WTFNs to the NNW site, subject to their availability. OPG has supported each MS-WTFN's participation in early and ongoing conversations and collaboration in studies around future power generation opportunities at the NNW site.

On September 9, 2024, OPG and the MS-WTFNs continued these early conversations around Ontario's increasing demand for electricity and potential future power generation. MS-WTFNs and OPG have held regular monthly meetings, at minimum, to continue meaningful, collaborative discussions based on the principles of respect, trust and transparency.

On November 27, 2024, the Ontario Government announced it had asked OPG to begin discussions with leadership of Rights-holding First Nations and interested Indigenous communities, the broader community, and municipal leaders on its existing sites in Port Hope, Haldimand County, and St. Clair Township to determine community support for all types of new energy generation, including nuclear, to meet the significant increase in Ontario's forecasted demand for electricity.

Since January 15, 2025, when the Ontario's Minister of Energy made a public announcement that the Ontario Government had asked OPG to explore opportunities for new nuclear energy generation at the NNW site, OPG has continued to build upon prior discussions, and has maintained regular communication and engagement with Rights-holding First Nations and interested Indigenous communities, including the MS-WTFNs. OPG continues to provide information through continued dialogue with Rights-holding First Nations and interested Indigenous communities around the potential for new nuclear in the Territory.

OPG's Indigenous Relations team has maintained regular communications with the Chippewa Nations of the WTFNs regarding the NNW site at Wesleyville, in Port Hope. The Chippewa

Nations have advised OPG that they wish to continue being engaged and OPG will continue seeking opportunities for participation.

The Wendat Nation has expressed interest in being involved should archaeological fieldwork or related site activities be scheduled, and OPG continues to engage on this archaeological interest. OPG has also provided information about the potential of NNW Project to SNGR and MCFN. The MNO has noted that the NNW site is outside of their asserted Rights-bearing area. OPG has also engaged with the MBQ regarding the NNW site. Engagement with MBQ has included ongoing discussions about potential new generation development, information sharing on OPG's operations, and opportunities for relationship-building. These efforts reflect OPG's commitment to sharing information, seeking input, and supporting relationship-building with MBQ in relation to potential new nuclear development and educational opportunities.

OPG will respect the Aboriginal and Treaty rights and interests of all First Nations and Indigenous communities and will engage with Rights-holding First Nations within their respective governance frameworks with respect to decisions that impact or potentially impact their rights, homelands, and treaty territories.

In summary, as of October 2025, OPG has engaged with Rights-holding First Nations and interested Indigenous communities, via the following:

- established relationship and regular minimum monthly cadence meetings with MS-WTFNs as Rights-holding First Nations to discuss key issues and priority areas
- focused workshops to garner input and feedback around key issues and studies;
- ongoing draft deliverable and schedule sharing for input and feedback through an established Wesleyville-specific SharePoint site
- starting in spring 2025, OPG has provided MS-WTFNs with weekly outreach requesting MS-WTFNs' liaison participation in ongoing field studies, where health and safety provisions can accommodate
- starting in spring 2025, providing weekly field work summaries for activities at the NNW site and highlighting key observations
- exploring including Michi Saagiig Anishinaabeg perspectives in the Port Hope Nuclear Discovery Centre (information centre), which had its grand opening on October 10, 2025. The Port Hope Nuclear Discovery Centre opened to the public on October 15, 2025

- OPG has maintained ongoing outreach to BFN, CGIFN, and CRFN regarding the NNW Project through Chippewa Tri-Council meetings and through email correspondence on areas of interest
- OPG has maintained ongoing engagement with the MBQ regarding the NNW site, including discussions on potential new generation development, information sharing, and relationship-building opportunities
- OPG has maintained ongoing outreach to the Wendat Nation regarding archaeological assessments at the NNW site mainly through email correspondence
- OPG has participated in project information/booths at local community events, including:
 - Little Native Hockey League (LNHL) Tournament (March 2025)
 - CLFN - Business Day Event (July 2025)

In November 2024, OPG provided a draft version of this IPD to MS-WTFNs with placeholders seeking input and feedback. Since this time, OPG has welcomed collaborative input from the MS-WTFNs, culminating in this document. OPG would like to thank the Elders, Knowledge contributors, staff, and community members, who have shared their insights and guidance throughout this process. We are grateful for the opportunity to listen, learn, and work together.

OPG remains dedicated to continued engagement with Rights-holding First Nations and interested Indigenous communities, with the goal of building strong, collaborative relationships based on respect, trust, and transparency. OPG will continue to work with Rights-holding First Nations and interested Indigenous communities to discuss future steps and potential approaches to collaborative and MS-WTFNs-led assessments to support the further understanding of real and potential impacts of the proposed NNW Project.

To enable the activities above, in the spirit of building strong, collaborative relationships based on respect, trust, and transparency the OPG staff and vendor partners have participated in Indigenous relations awareness and cultural training. AFN and CLFN have furthered this learning through on-the-land training provided to OPG staff. OPG remains grateful for the opportunity to advance meaningful learning about Indigenous culture, history, and perspectives.

1.4.4 Key Interests and Issues Raised by Rights-Holding First Nations and Interested Indigenous communities

OPG will actively listen to and consider feedback from engagement with Rights-holding First Nations and interested Indigenous communities throughout the proposed NNW Project. OPG recognizes the importance of ongoing dialogue around potential Indigenous-led assessment of

real and potential impacts and is willing to work collaboratively with the WTFNs to understand preferred approaches in assessing real and potential impacts of the NNW Project. OPG will continue to work with each Rights-holding First Nation and interested Indigenous community to identify and address key issues throughout the IA for the NNW Project.

1.4.4.1 Key Interests, Issues and Concerns Raised by the MS-WTFNs

The following subsections cover a preliminary and high-level list of some of the key interests, issues and concerns which have been raised collectively by the MS-WTFNs. To be clear, this list in no way represents all the interests, issues or concerns of our communities regarding the NNW Project; There has not been sufficient information, data, or details about the NNW Project provided by OPG at this feasibility and pre-planning phase of the NNW Project. There has not been enough time for proper engagement with the leadership, community members or Knowledge holders of the MS-WTFNs for this list to be considered complete. Further engagement will be required by OPG, in order to develop a more fulsome list of key interests, issues and concerns to be carried through the IA.

Our key interests, issues and concerns thus far have focused on high level concerns related to nuclear activities in general, as well as some NNW Project-specific concerns, which are based on our first impressions and limited details of what we know about the NNW Project at this stage.

1.4.4.1.1 Our Right to Self-Determination and Our Decision-Making Authority

- We raise concern regarding our ability and responsibility to protect, preserve, and ensure the longevity of *nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad*, our identity and ways of life, as well as the wellbeing of our communities and all of our Relatives, in the face of nuclear development and activities taking place within our homelands and Treaty Territories.
- We raise concern regarding the previous, current, and future establishment and operation of nuclear activities within our homelands and Treaty Territories, which has, and continues to occur, in a manner which is inconsistent with the intent and explicit promises of the Treaties, the DtCA, UNDRIP, and without achieving our FPIC.
- We express concern that decisions about the NNW Project are being made without our decision-making authority, and without OPG committing to UNDRIP and FPIC, creating uncertainty and undermining trust early in the process. It is our expectation that OPG, the Agency and the CNSC uphold UNDRIP, FPIC, the DtCA and our decision-making authority throughout all aspects of the IA, and other regulatory processes related to the NNW Project.

- We express concern regarding our opportunity to participate meaningfully in ongoing decision-making processes; There is currently a lack of an appropriate and meaningful processes to ensure that our decision-making authority is upheld, respected, and followed throughout the lifecycle of all nuclear activities taking place within our homelands and Treaty Territories, including the NNW Project. We express concern that OPG has made several decisions that have informed the IPD without the involvement of the MS-WTFNs. Examples include, but are not limited to, determination of the purpose and need (Section 2.2), schedule (Section 2.5), infrastructure, and physical work, including phasing (Section 2.6), and alternative means to carrying out the project (Section 2.3). The MS-WTFNs have the authority to make decisions regarding real and potential adverse impacts and effects to our homelands and Treaty Territories, and we request that this authority be acknowledged, respected, and upheld by OPG, the Agency and the CNSC. This includes establishing an appropriate and meaningful process within the IA, and other regulatory processes, as well as in relation to future OPG decisions. Such processes must uphold each MS-WTFN's decision making authority with respect to whether and how projects should proceed within our homelands and Treaty Territories, as well as deciding any required follow-up and monitoring programs. Upholding our decision-making authority is essential to fully address real and potential adverse impacts and effects to our values, culture, spirituality, and to protect our relationships, Rights and our Relatives.
- Should the NNW Project be approved, we express concern regarding the current lack of opportunity to directly oversee operations. We must ensure that nuclear operations are undertaken and carried out responsibly, with full consideration for the longevity of ecosystems and the wellbeing of Relatives, for generations to come. Our direct involvement and decision-making authority in developing and implementing processes and programs including, but not limited to, monitoring or compliance verification, which are guided by our values, responsibilities, and ways of knowing and being, must be supported. This includes financial and structural supports for our involvement.
- We express concern that the current mechanisms and processes beyond the IA decision do not account for our future inclusion in decision making, oversight, monitoring, completion of various studies, and commitments. We require a wholistic process, which upholds our decision-making authority, and ensures our ability to affect project outcomes. Such processes must be established throughout the full lifecycle of the NNW Project, beyond the IA. A mutually agreeable approach which upholds our sovereignty and facilitates Nation-to-Nation dialogue must be established. Such an approach must uphold each MS-WTFN's decision-making authority, by ensuring our involvement in decision-making activities wherever such decisions may result in real and potential adverse impacts and effects to our communities, our wellbeing, and/or the Lands, Waters and all Relatives, or Rights.

1.4.4.1.2 Nation-to-Nation Approach to Meaningful Consultation and Regulatory Process

- We express concern regarding the unilateral determination of what meaningful consultation entails within the IA process and how it will be determined as being achieved. We recognize OPG's efforts in bringing the MS-WTFNs into the feasibility phase of the NNW Project and the pre-planning process; however, we express concern regarding the absence of even earlier consultation. Consultation and engagement should begin, at a minimum, 'when the pen meets the napkin', or when an idea is contemplated by OPG, and prior to any process or decision-making. With respect to the CNSC and the Agency, this early engagement and consultation must have already taken place in order to have solidified process matters before the official regulatory "clock" starts. We require timely and frequent consultation on all CNSC, Agency and OPG activities in a Nation-to-Nation context. This includes structural and financial support to develop and implement appropriate processes that uphold each MS-WTFN's internal governance processes and decision-making authority. We must be included in decisions about our homelands and Treaty Territories, to ensure they honour our responsibilities and Rights, as well as our collective (OPG - Crown - MS-WTFNs) regulatory needs, and that our communities determine what constitutes meaningful consultation as well as determine when it has been achieved.
- We express concern that the current IA process is not compatible with our ways of knowing and being, including, but not limited to:
 - not being able to identify and fully inform study scope, criteria, values, and study areas related to our communities' priorities,
 - not being able to take the time required for adequate deliberation and decision-making by each of the MS-WTFNs.

Given this incompatibility, the MS-WTFNs intend to undertake our own IA process. It is our expectation that OPG, the Agency, and CNSC support our MS-WTFNS-led Impact Assessment and ensure that its findings are incorporated and inform the federal IA process.

- We raise concern that the current regulatory processes do not support Nation-to-Nation dialogue, foster a shared understanding, facilitate joint decision-making, or adequate coordination among the MS-WTFNs, OPG, the Agency, and the CNSC. We express concern regarding the likelihood that our efforts to engage and provide input into the IA and regulatory processes related to the NNW Project will be treated as commentary and be arbitrarily truncated by regulatory timelines and compartmentalized decision-making. Given OPG's timelines and the format of the federal IA process, many issues that we identify, will remain incomplete or unresolved, yet such issues or concerns will carry forward beyond the IA. For example, any MS-WTFNs-led assessments and studies that need to be completed will likely not conform to OPG's timelines or the imposed timelines of the IA, and therefore the IA will not have complete or sufficient information to support

proper and fulsome decision-making for either the Crown or our communities. It is our expectation that OPG fully support our communities' involvement in the assessment of the NNW Project (and all other OPG projects within our homelands and Treaty Territories) and our MS-WTFNs-led Impact Assessment.

- We express concern regarding our financial and structural capacity, which may limit our necessary involvement and participation in the IA for the NNW Project. This includes, but is not limited to, physical resources, appropriate timelines, and any associated work, including on and off-site activities, any follow up that may come from the IA, and our decision-making processes. Our concern also includes our need to involve third parties, who have the necessary expertise, to ensure that we can evaluate information through an independent western lens. The validation of the western view provided by a third party can better inform our ability to evaluate information from our own perspective, values, and ways of knowing and being. We expect OPG, the Agency and CNSC to meaningfully and adequately support our capacity in this regard.
- We express concern over the federal IA and NNW Project timelines and processes; It does not seem likely that a MS-WTFNs-led Impact Assessment, processes, studies, review periods, or deliberations will be accommodated, given our limited resources and competing priorities. We have concern that there will not be sufficient time for us to make informed decisions, undertake internal community engagement, and seek approvals through our governance processes, or for the MS-WTFNs to achieve consensus where needed. It is our expectation that OPG, the Agency and the CNSC support our involvement in the IA, including, but not limited to, being receptive to our timelines, capacity and internal governance processes.

1.4.4.1.3 Real and Potential Adverse Impacts and Effects to Rights, Relatives, Health and Wellbeing

- We raise concerns that, if approved, the NNW Project could have wide-ranging adverse impacts and effects to many aspects of our ways of life. We raise concern that such adverse impacts and effects may not be fully captured by conventional western structured assessments. For example, the NNW Project may have adverse impacts and effects to our ability to protect, preserve, partake in, and ensure the longevity of:
 - our Inherent, Aboriginal and Treaty Rights
 - our *nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad*, identity, spirituality, and culture
 - our ability to gather and share Knowledge, which flows from our relationships with the Lands, Waters and all Relatives
 - our cultural landscapes and our places of spiritual and cultural significance
 - our wellbeing and mental health
 - our harvesting practices

- our *Aanikoobigiganaanan and kina ngadmawaad*³⁸ and relationships with the Lands, Waters and all Relatives
- our social customs, ingenuity, craftsmanship and economies
- our laws and responsibilities, including our Right to self-determination and our ability to carry out our responsibilities to the Lands, Waters and all Relatives.

(A more fulsome list of real and potential adverse impacts and effects of the NNW Project to our communities must be identified through additional studies and assessments)

- We raise concern regarding the real adverse impacts and effects that the proposal of the NNW Project is already having on our communities and our Relatives, prior to the completion of an IA. Our concern includes, but is not limited to:
 - the continued and exacerbated loss of our ability to freely access healthy and balanced Lands, Waters and all Relatives
 - the continued and exacerbated loss of, or impact to, our ability to freely partake in our Rights, our identity, our spirituality and our culture on those Lands and shorelines that have been taken up by the Crown and converted into private ownership, including, but not limited to the NNW site
 - the continued and exacerbated adverse impacts and effects to our wellbeing and the wellbeing of our Relatives, which create fear and uncertainty about the future of the Lands, Waters, Relatives, Rights, and our ways of life within our homelands and Treaty Territories.
- We express concern regarding the ongoing lack of accessible and healthy Lands, Waters and all Relatives within our homelands and Treaty Territories, which will be exacerbated by the NNW Project. We express concern over those areas which remain accessible to us, yet are impacted by environmental degradation, and the loss or relocation of our helper species (Relatives) or Relatives of specific interest or concern to us. Many of our Relatives are relocating to areas outside our Treaty Territories, which represent losses including, but not limited to:
 - a loss in our ability to exercise our Right to harvest
 - a loss in our ability to sustain ourselves through our traditional foods and medicines
 - a loss in our ability to generate, cultivate and disseminate our ways of knowing and being, including but not limited to, our language, culture and spirituality
 - a loss to our direct relationships with our Relatives
 - a loss to our health and wellbeing, including to our economies.

³⁸ Under the guidance of the Elders of CLFN and our Knowledge Contributors, we have chosen to include this *Anishinaabemowin* phrase, which loosely translates as ‘what they left behind’, in English. It most closely corresponds with the western concept of ‘material culture.’

- We express concern regarding the fear, sorrow and concern of our community members regarding the ongoing loss and alteration of our Lands and Waters, including, but not limited to, our cultural landscapes and places of cultural or spiritual significance. We express concern over our lack of sense of safety in those areas of our homelands and Treaty Territories which have been degraded or altered by development, nuclear and otherwise.
- We express concern regarding the lack of sufficient information regarding the NNW Project, including, but not limited to, the general location including the scale and footprint of potentially impacted areas, and a detailed understanding of the full scope of anticipated infrastructure; Without this information, we are not able to fully identify or assess the extent of real and potential adverse impacts and effects to the Lands, Waters and all Relatives, to our Rights, to our cultural landscapes, and to areas of cultural and spiritual significance including archaeological resources and ancestral burial sites.
- We express concern regarding real and potential adverse impacts and effects related to changes in air quality and increases to air pollutants associated with the NNW Project. This includes increases as a result of activities related to pre-planning and feasibility studies which are being undertaken at the NNW site, prior to the IA. Such changes impact our health and the health of our Relatives. They also disrupt our relationships with our Relatives and our ways of knowing and being; Poor air quality impacts plant harvesting, ceremonial practices, and the ability to relate to our Celestial Relatives such as seeing the stars and *Dabik Giizis Nookimis*³⁹. We express concern about thermal effects to air, caused by nuclear facilities, including the NNW Project. Such effects can lead to localized temperature changes which adversely impact our Relatives that fly. Impacts to air quality and air temperature represent an infringement on our Rights. Should the NNW Project move forward, all aspects must be designed to avoid, reduce and limit any changes to air quality or increases to air pollution, and must uphold our decision-making authority.
- We express concern regarding real and potential adverse impacts and effects of infrastructure at the NNW site to our Relatives. This includes, but is not limited to, restrictions to their movement, foraging grounds, nesting and breeding grounds, potential strike impacts, changes to their landscapes leading to changes in migratory patterns, and disruptions to their relationships with the Lands, Waters and all Relatives.
- We express concern regarding changes and increase in noise and light pollution associated with the NNW Project, including through preliminary assessment activities occurring prior to the IA. Changes and increases in noise and light pollution adversely impacts many of our Relatives, disrupts our relationships with them, and disrupts our ways of knowing and being. This includes, but is not limited to, adverse impacts and effects to our ability to locate ourselves within our place, not being able to hear guidance and instructions from the

³⁹ Throughout this document, we have chosen to include our name for our Relative ‘*Dabik Giizis Nookimis*’, which can be loosely translated as ‘Grandmother Moon’, in English.

sounds of the landscape and our Relatives, and diminishing or limiting our ability to see Celestial Relatives. Should the NNW Project move forward, all aspects must be designed to avoid, reduce and limit any increases to noise and light pollution, and must uphold our decision-making authority.

- We express concern regarding real and potential adverse radiological impacts and effects to our communities and our Relatives. Currently, radiological impacts assessments do not consider a First Nation Receptor, nor are ecological receptors considered as more than as a resource from a human-centric perspective. Radiological impacts and effects to our communities and our Relatives must be identified, evaluated and protected against. Thresholds based on our Relatives' wellbeing and inclusive of consideration for the interconnectedness of all our Relatives must be established. Radiological impacts and effects must be presented in ways that are more relatable to our communities. Decisions regarding acceptable radiological doses to our Relatives must be inclusive of our values and ways of knowing and being and must uphold our decision-making authority.
- We express concern regarding real and potential adverse impacts and effects of the NNW Project to the Waters, including *Gchi Nibi*, wetlands, creeks, groundwater, and the many Relatives who depend on them. The NNW Project's activities may increase sedimentation and turbidity, alter water chemistry and temperature, and degrade water quality, leading to harm to aquatic Relatives such as fish, amphibians, and wetland species. We are concerned about habitat loss, fragmentation, and the disruption of aquatic vegetation, wetland functions, migration routes, and fish populations and behaviour. Contaminants and radiological pollutants may accumulate within the aquatic food web, impacting the health and reproduction of aquatic Relatives, our traditional food and medicine sources, and limiting safe access to clean water.

1.4.4.1.4 Cumulative Effects and Pre-existing Impacts

- We express concern regarding the cumulative real and potential adverse impacts and effects generated by the NNW Project, as well as from existing and future OPG projects (non-nuclear and nuclear), other industries, land privatization, farming, transport, operations, and historical policy, etc. Such cumulative impacts and effects must be identified and interpreted through analysis undertaken by the MS-WTFNs. Analysis must examine how existing industrial and development activities have already affected our wellbeing, culture and ways of life. Analysis must examine the cumulative impacts and effects of the limitation of our access to healthy and balanced Lands, Waters and all Relatives, which will only be exacerbated by the NNW Project. Our concern includes the need to fully identify and address such cumulative impacts and effects for the full life cycle of the NNW Project, including, but not limited to:
 - the existing conditions of the OPG NNW site
 - mining of raw materials and associated mining waste

- the transportation of raw materials
- the processing of such raw materials
- the generation of waste during construction and operation
- the generation of radionuclides which are emitted to the environment.

A wholistic MS-WTFNs-led analysis of intergenerational impacts and effects to our communities must be completed and inform the IA.

- We express concern regarding the ongoing feasibility and pre-assessment works related to the NNW Project (e.g., borehole drilling, MET tower installation) that are already disturbing the Lands, Waters, Relatives, *kina ngadmawaad*, our cultural landscapes and our relationships to them. The proposal of the NNW Project has caused fear and uncertainty about the future of the Lands, Waters and all Relatives within our homelands. We already see and feel the effects which began before this assessment and continue today. Continuous monitoring must be planned and established, and consistently funded, for the life of the NNW Project. Monitoring must include (but not be limited to), a First Nation Guardians program or other MS-WTFNs-led or informed monitoring program, which is consistent with our decision-making authority. We must be included in all data collection and interpretation. Barriers to our ability to access healthy and balanced Lands, Waters, and all Relatives must be addressed, and *chi weshjigaadeg nike gaazhnaagwaak mewzha* must be achieved, including, but not limited to, through processes that uphold our decision-making authority.
- Should the NNW Project be approved, we express concern regarding the potential unilateral identification and categorization of impacts based on western science, including the notion of ‘negligible effects’ which differs greatly from our understanding of real and potential adverse impacts and effects. All impacts and effects to the Lands, Waters and all Relatives must be accounted for, taken into consideration, and meaningfully addressed. We express concern regarding proposed avoidances and mitigation measures conforming solely to regulatory minimum standards, which fall short of our responsibilities to our Relatives, forcing us to live in a state of compromised ethics. OPG, the Agency, and CNSC must work with the MS-WTFNs to develop a shared understanding of categorization and scale of impacts and effects and collaboratively identify appropriate avoidance and mitigation measures. It is our expectation that commitments be made to protect the Lands, Waters and all Relatives, including *chi weshjigaadeg nike gaazhnaagwaak mewzha*. A co-led process, which is guided by our Knowledge, experiences, customs, and responsibilities, and upholds each MS-WTFN’s decision-making authority must be established.
- Should the NNW Project be approved, we express concern regarding its cumulative real and potential impacts and effects to climate change, especially as the NNW site is situated on *Gchi Nibi*, which is increasingly sensitive to any shifts in climate. Climate change has a disproportionate impact on our communities, and our ways of knowing and being. Cumulative effects and the overall impact of colonization and development, including nuclear operations, and the mining activities associated with nuclear development, have

and continue to impact the Lands, Waters and all Relatives. Our relationships and connections with the Lands, Waters and all Relatives are also impacted. Such impacts and effects will only be increased and prolonged by the NNW Project. Continuous monitoring must be planned, established, and consistently funded for the life of the NNW Project. Monitoring must include, but not be limited to, a First Nation Guardians program or other MS-WTFNs-led or informed monitoring program, consistent with our decision-making authority. We must be included in data collection and interpretation.

1.4.4.1.5 Interim and Long-Term Nuclear Waste Management & Decommissioning Activities

- We express concern that the IA for the NNW Project may not fully assess real and potential adverse impacts and effects related to decommissioning activities and the interim and long-term management, storage, and transportation of nuclear waste. We express concern regarding any deferral of decisions regarding decommissioning and/or the interim and long-term management, storage, and transportation of nuclear waste. Such decisions cannot be left for future generations to solve; This is not consistent with our values, laws, or responsibilities to our Relatives or future generations. The IA must fully address decommissioning and how nuclear waste will be managed, stored, and transported, not only in the interim, but also through long-term storage solutions. Innovative approaches to nuclear waste management, storage, and transportation must be pursued, including recycling/other uses for used or unspent nuclear fuel. Any decisions regarding decommissioning, nuclear waste management, waste storage, and waste transportation conform to Article 29(2) of UNDRIP.
- Should the NNW Project proceed, we express concern regarding the need to explore on-site long-term storage of nuclear waste as part of the IA, due to the uncertainty of an off-site long-term storage solution. We require assurance that risks to our communities, our Rights and the Lands, Waters and all Relatives, will be adequately captured. Mutually agreed upon plans for long-term nuclear waste storage must be established. Alternatives for short- and long-term nuclear waste must be studied as part of the IA and incorporated into the TISG. Decisions regarding the selection of reactor technology, and all associated infrastructure and facilities, including nuclear waste management, storage and transportation, must conform with Article 29(2) of UNDRIP, including obtaining our FPIC, and uphold our decision-making authority. We must be central decision makers with respect to nuclear waste storage and be directly involved with alternative means assessment; Our governance structures and long-term vision for our homelands and Treaty Territories, as well as protection of our Rights, must be upheld.
- We express concern regarding the need for rigorous safeguards and transparent monitoring systems to prevent harm from nuclear waste to the environment, to our communities, and to our Relatives. Mutually agreed upon processes, which uphold our decision-making authority with respect to the management, storage, and transportation of nuclear waste

within our homelands and Treaty Territories must be established. Safeguards and monitoring systems must be guided by the MS-WTFNs. Nuclear waste management activities must be informed and guided by *Canada's Policy for Radioactive Waste Management and Decommissioning* (Government of Canada, 2023) as well as any future best practices.

- We express concern regarding the fundamental differences between the understanding of OPG and of our communities regarding the definition and application of the operational range and PPE for the NNW Project. Nuclear waste generation is technology dependent, and the definition and application of the PPE shape how nuclear waste generation, storage, and their associated real and potential adverse impacts and effects are assessed. Should the NNW Project proceed, and nuclear waste is stored on-site, yet outside of the PPE, it would be difficult to characterize. A shared understanding of the definition of the scope of the PPE and how it is intended to be applied must be established between OPG, the Agency, the CNSC and our communities. Risks to our communities, to our Rights and to the Lands, Waters and all Relatives must be adequately captured. Mutually agreed upon plans for long-term nuclear waste storage must be established. All decisions regarding the selection of reactor technology, and the associated infrastructure and facilities, including nuclear waste management, storage, and transportation, must conform with Article 29(2) of UNDRIP, including obtaining our FPIC, and uphold our decision-making authority. We must be central decision makers with respect to nuclear waste storage and directly involved with alternative means assessment; Our governance structures and long-term vision for our homelands and Treaty Territories, as well as protection of our Rights, must be upheld.

1.4.4.1.6 Emergency Preparedness and Risk

- We express concern regarding the lack of opportunity and established processes to accept, respect, and fully integrate each MS-WTFN's right to self-determination with respect to the current existing nuclear safety and emergency preparedness regime. Each MS-WTFN must be fully part of the emergency preparedness and response planning. All efforts must be made to ensure that our communities and our members are aware, prepared, and equipped to understand and implement appropriate safety measures. OPG must fulfil its responsibility and duty to protect *Shkakimikwe*. CNSC must fulfil its mandate to uphold the safety of all Canadians through its regulatory processes. These responsibilities and mandates must uphold each MS-WTFN's decision-making authority, including our FPIC. Each MS-WTFN must be included in decision making around nuclear safety, plans, drills and exercises, and our decision-making authority must be upheld.
- We express concern about the potential impact of a nuclear disaster taking place within or near our homelands and Treaty Territories, which would have far reaching and devastating impacts and effects to our communities, Relatives and every aspect of our ways of life. We express concern regarding the cumulative risk that is posed by the current nuclear facilities

and activities taking place within or near our homelands and Treaty Territories.

- We express concern regarding the lack of opportunity, capacity, and mutually agreed upon processes regarding community education and access to timely and relevant information related to nuclear safety and nuclear activities occurring within our homelands and Treaty Territories. A Nation-to-Nation dialogue must be established to fully identify and understand the real and potential adverse impacts and effects of all nuclear activities that are taking place within our homelands and Treaty Territories, including the NNW Project.

1.4.4.1.7 Archaeology and *Nike gaabinjibaad Nishnaabe, Kina Ngadmawaad, Kina Gaabmishjigewaad, Nike Wanishaawaad*

- We express concern regarding assurance that all proper archaeological and cultural heritage processes, laws, and protocols are followed. Timely, transparent, and ongoing communication regarding any archaeological and cultural heritage matters must be established and maintained. This includes, but is not limited to, any finds or recovery of any potential *kina ngadmawaad* or ancestral remains. Our *nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad* and cultural landscapes must be adequately acknowledged, respected, and protected, moving beyond minimum standards. This includes, but is not limited to, the need to protect, and respect our *Aanikoobigiganaanan* by making all efforts to ensure that they are not disturbed or relocated. We must be fully involved in any cultural heritage processes, such as studies or assessments and our guidance on the methods and interpretation of any *kina ngadmawaad* is required. All decisions related to our *nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad* must include our FPIC and uphold our decision-making authority.
- We express concern regarding the lack of co-developed policy to protect our *nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad* and ensure that our *kina ngadmawaad* and *Aanikoobigiganaanan* are not impacted. We express concern regarding the lack of appropriate mechanisms to address any real and potential adverse impacts and effects to our *kina ngadmawaad* and *Aanikoobigiganaanan*, in a manner which is aligned with our responsibilities and decision-making authority. We require respect and protection for our *Aanikoobigiganaanan* and *kina ngadmawaad*. We must lead the safe care, repatriation, and appropriate ceremony, upon the recovery of our *kina ngadmawaad*, cultural landscapes, and/or *Aanikoobigiganaanan*.
- We express concern regarding the need to protect our history and *nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad*; Our communities are awakening memories and stories of the past which have been disrupted through colonization, the illegal extinguishment of our Rights, and our inability to freely access the Lands, Waters and all Relatives within our homelands and Treaty Territories,

due to the ongoing assertion of Crown jurisdiction and private land ownership, including the NNW site and surrounding areas.

1.4.4.1.8 Project Naming

- We express concern over any name for the NNW Project which reflects, or references, names or titles associated with the establishment or implementation of Residential Schools. It is our expectation that OPG considers an appropriate name for the NNW Project that is respectful to all parties.

1.4.4.1.9 Knowledge Protection

- We express concern regarding respect for and the integrity of any Knowledge or data that we share with OPG, the Agency and the CNSC. This includes ensuring protection against the potential for misuse, misinterpretation, and/or misappropriation outside of the original context for which our Knowledge and data was provided. Any Knowledge or data provided must uphold the First Nation principles of Ownership, Control, Access and Possession^{®40}

⁴⁰ OCAP[®] is a registered trademark of the First Nations Information Governance Centre (FNIGC) <https://fnigc.ca/ocap-training/>

Table 1: Summary of Key Interests and Issues raised by each MS-WTFN

MS-WTFN	Interest, Issue or Concern Raised
AFN	<ul style="list-style-type: none"> • When considering the NNW Project, the challenges posed to the fundamental values and beliefs of our <i>Anishinaabeg</i> worldview are conflicting. • Concern that the NNW Project requires that we challenge our own <i>Anishinaabeg</i> Teachings, our own Knowledges, and our relationships with all our Relations. • Concern regarding the creation of dangerous and hazardous waste, especially in terms of responsibility, in our view, the idea of producing dangerous and hazardous waste would only come to fruition if a sound and safe solution existed to dispose of it. Through a <i>Nishnaabe</i> lens, if there is no sound methodology to account for any harm that may come through an action, that action is not taken. • Concern regarding the idea of transporting nuclear waste produced within our Treaty Territories to other First Nations' territories does not uphold our responsibilities, accountability, or our relationships with other sovereign First Nations. • Concerns regarding the imposition to AFN and its community members to: <ul style="list-style-type: none"> ○ put our values and Knowledge aside ○ break with circular thinking ○ deny our familial connections to all our Relation ○ deny responsibility to our children yet to come ○ to allow our Grandfathers to house the most toxic of waste materials ○ to agree to allow potential harm to our mother and her children ○ to allow potential harm to come to all of our Relatives, and harm to come to the relationships we have built with them ○ to approve harm to come to <i>Nibi</i>, the Waters, and the lakebed that supports her, as well as the Fish and all aquatic life (our Relatives) that inhabit the area • Concern that our Nations are being subject to diminishing our worldviews, diminishing our epistemologies and methodologies and diminishing our pathways to <i>MINO-BIMAADIZIWIN</i>. In many ways, the NNW Project and all that comes with it is simply not compatible with <i>Anishinaabeg</i> Teachings and ways of being. Thus, we are subject to losing something in this process, which diminishes our peoples and all our Relations. This is a truth that must be acknowledged.

MS-WTFN	Interest, Issue or Concern Raised
	<p>It is imperative to ensure that our Nations are up front and helping to guide the process. It is imperative that our Nations are included in and informed on all aspects of the NNW Project so that we may achieve Full⁴¹, Prior, and Informed Consent.</p>
CLFN	<ul style="list-style-type: none"> • The need to identify, understand, and address impacts to Inherent, Aboriginal, and Treaty Rights. • The need to identify, understand and address impacts to Relatives in the area of the NNW Project. • The need to identify, understand and address cumulative effects of all development, including the proposed Industrial Park, in the area of the NNW Project. • Concern regarding the transportation of nuclear waste within the WTFNs’ Territory and avoiding burdening other First Nations with the risks of nuclear waste storage or transportation without meaningful consultation. • Concern that mitigation measures comply with current regulations only, which may be insufficient to effectively protect our Land, Waters, and other Relatives. • The need for proper consultation and engagement, fostering a strong relationship between the Nation, its community members, and OPG by involving CLFN in every key step of projects, operational activities, and decommissioning activities and genuinely adopting our input. • Establishing an accurate baseline for restoration purposes, based on a pre-European settler landscape, to ensure <i>chi weshjigaadeg nike gaazhnaagwaak mewzha</i>⁴², rather than using a baseline of condition based on Euro-settler altered lands. • The need to ensure that CLFN’s ways of knowing and being informs and guides environmental assessments and other aspects of the NNW Project. • CLFN modes of evaluation, analysis and decision making (coming to a conclusion) must inform and guide the identification and analysis of the impacts of the NNW Project.
HFN	<ul style="list-style-type: none"> • Concern regarding the consultation process, including the difficulty in accessing and receiving information, communication issues, and the high volume of requests, and short timelines for review. • HFN has been experiencing capacity challenges which have impacted the Nation’s ability to fully engage in consultation activities to date.

⁴¹ AFN has chosen to include the term ‘Full’ to emphasize a comprehensive and complete form of consent, whereas ‘Free’ highlights that consent is unfettered, without coercion or external influence. Both terms reflect important dimensions of consent, and together they offer a more holistic understanding of the standard AFN advocates for.

⁴² Under the guidance of the Elders of CLFN, we have chosen to include the *Anishinaabemowin* phrase ‘*chi weshjigaadeg nike gaazhnaagwaak mewzha*’ to more closely align with our ways of knowing when discussing the concept of ‘restoration’, in English. Loosely translated, this term can be understood as ‘to get it fixed to how it used to look long ago’, in English. Our understanding of *chi weshjigaadeg nike gaazhnaagwaak mewzha*, moves beyond western regulations, standards or baselines. It signifies a return to balance as it was within our homelands since *me’wzha*, prior to the arrival of European settlers. As shared by Tom Cowie Consultation Indigenous Knowledge Lead at HFN, this concept includes our teaching of leaving the Lands better than when we found them.

MS-WTFN	Interest, Issue or Concern Raised
	<ul style="list-style-type: none"> • Concern regarding the ability and willingness to establish mutually defined expectations and promote an environment that encourages two-way dialogue.
MSIFN	<ul style="list-style-type: none"> • Concern regarding disturbance and consideration of works taking place before full site-wide Archaeological Assessment, Ecological Land Classification and Flora inventories are complete. • Concern regarding the limitations of Valued Components (VCs), versus applying a framework that allows for MS-WTFNs-led Impact Assessment of the NNW Project’s impacts on Relatives. VCs, provided by OPG’s contractors, have been incorporated into field work and sampling plans for the NNW Project, without input from, and collaboration, with MSIFN. • The need for comprehensive baseline understanding of the NNW site prior to any site work or disturbance, including ecological, cultural, and hydrological conditions, to ensure Nation-led priorities are reflected. • Concern regarding consultation activities to date, including the level of collaboration and involvement of MSIFN in decisions that could impact Rights, such as vendor selection and project planning independent of MSIFN input. • The need to ensure that MSIFN has decision-making authority and direction over key aspects of the assessment, including process design, timelines, engagement methods, and mitigation planning, in line with Nation-led governance and FPIC principles. • Concern regarding unknown plans for the long-term management, storage, and transportation of nuclear waste generated at the proposed NNW site, and the potential for impacts to Lands, Waters, and all Relatives. There is also concern that this won't be assessed or accounted for in the IA. • Concern that current assessments do not fully capture broad, interconnected impacts on MSIFN culture, wellbeing, mental health, the exercise of Rights, and relationships with the environment, water, and all other Relatives. • Concern regarding real and potential adverse impacts and effects to Rights including (but not limited to) hunting, fishing, harvesting, access to Lands and Waters, cultural and spiritual practices, wellbeing, governance, and other inherent Rights exercised within the Territory, as well as cumulative effects from other development that could further restrict or interfere with these Rights. • Concern regarding currently unknown impacts to the unceded lakebed and Waters at the NNW site and Lake Ontario, including anticipated cooling structures, and the need for Nation-led input on design, monitoring, and mitigation. • The need to ensure that MSIFN is provided with sufficient capacity, funding, and support to participate meaningfully throughout all stages of the assessment and project lifecycle, including review, deliberation, and decision-making processes.

MS-WTFN	Interest, Issue or Concern Raised
	<ul style="list-style-type: none"><li>• The need to ensure ongoing, collaborative, and transparent consultation that allows MSIFN to co-lead aspects of the assessment, mitigation planning, and monitoring, while supporting consensus-building among the MS-WTFNs.

OPG will continue to work with each Rights-holding First Nation and interested Indigenous community to identify and address key interests and issues, including those raised in Table 1, throughout the NNW Project.

1.4.5 Plans for Engagement with Rights-holding First Nations and Interested Indigenous Communities

OPG prioritizes early, ongoing, and transparent communication and collaboration with Rights-holding First Nations and interested Indigenous communities. OPG is committed to engagement with the WTFNs throughout the future life cycles and other aspects of the NNW Project. OPG will continue to engage Rights-holding First Nations, interested Indigenous communities, as well as organizations, and groups who are interested in the NNW Project. OPG's approach is guided by respect for the unique cultural practices, customs, and preferences of each Rights-holding First Nation and interested Indigenous community, with a commitment to relationship-building, and meaningful, two-way dialogue.

Engagement with Rights-holding First Nations and interested Indigenous communities will be designed based on an agreed upon process, activities and participation. Consultation will be to identify, understand, evaluate, protect, and meaningfully address or accommodate the Rights of the WTFNs. OPG will also consider, and address, interests and concerns of Rights-holding First Nations and interested Indigenous communities, to the extent feasible. Engagement will prioritize building trust, fostering mutually beneficial relationships, and collaborating to balance Indigenous Knowledge, perspectives, and priorities with Western frameworks in decision-making processes and project outcomes.

OPG will take direction from Rights-holding First Nations and interested Indigenous communities with respect to when, how and to what extent they wish to be engaged and participate in the various stages of the NNW Project. OPG will work with each willing Rights-holding First Nation and interested Indigenous community to understand engagement protocols and procedures, appropriate methods of communication and engagement, and develop the community-specific engagement plans. OPG will work with each Rights-holding First Nation and interested Indigenous community to understand how interests, concerns and any real and potential impacts to Aboriginal and Treaty rights might be appropriately addressed and how collaborative decisions will be made.

Engagement methods with Rights-holding First Nations and interested Indigenous communities could include a variety of activities, based on their preferences, including but not limited to:

- in-person or virtual meetings

- one-on-one or group meetings
- information sessions
- email correspondence
- Indigenous working groups
- workshops and working group sessions
- participation in field visits and site walks
- reviews of plans, reports, and other documents
- monitoring committees.

Engagement plans will be designed to be flexible and responsive. As such, they will be considered living documents subject to review and modification in response to the WTFNs' values, priorities, and rights as well as the interests of interested Indigenous communities, as well as unanticipated opportunities, events, or issues as they arise. As the NNW Project moves into different phases, engagement plans will be updated to reflect anticipated activities. OPG will be accountable to the commitments made in the engagement plan and ensure transparency in communicating progress and setbacks.

1.5 Engagement with the Public and Other Groups

OPG believes our power can help change the world, and not just by electrifying economies. OPG and our employees are proud of the role communities are playing in Ontario's mission to decarbonize. OPG relies on the support of host communities to generate power. OPG and its employees are also proud to be part of the community – as employees, but also residents. Beyond electricity generation, OPG has a long history as an engaged community member that encourages and supports local organizations and initiatives that help keep our communities strong and healthy.

OPG will continue to engage with municipalities, community groups, stakeholders and community members throughout the IA process and entire lifecycle of the proposed NNW Project.

OPG's summary of engagement (to date) with the public, stakeholders and other groups interested in the NNW Project is provided below. These include, but are not limited to:

- all levels of government
- municipal staff
- businesses
- educational institutions
- social services and healthcare organizations

- public groups (such as non-governmental organizations, community and neighbourhood associations, and business improvement associations)
- residents and property owners
- general public and interested parties.

OPG is committed to building long-lasting relationships with local communities, the public and key stakeholders. OPG fosters open, transparent and ongoing communications through a range of engagement activities and aims to facilitate the following understanding with interested public and other groups with respect to the NNW Project development and regulatory processes:

- project details, regulatory processes and requirements
- how the project contributes to the province of Ontario's energy demand and decarbonization goals
- how participation and engagement is reflected in processes and regulatory submissions
- sustainability, and benefits to the community from the project.

OPG has Public Information and Disclosure programs established for existing operations. The Public Information and Disclosure Program complies with the requirements outlined in CNSC REGDOC 3.2.1, Public Information and Disclosure. Implementation and maintenance of a Public Information and Disclosure Program is a condition of OPG's CNSC operating licences. OPG may leverage existing public information strategies to support project engagement, including community newsletters and existing social media channels; however, an NNW Project-specific engagement program has been developed and is further discussed in the following sections, including:

- a summary of communications strategies and approaches used through the early engagement phase
- a summary of early engagement undertaken with the public and other groups
- a summary of key issues raised and the results of those engagements
- a brief description of OPG's plan for future engagement.

1.5.1 *Summary of Public Engagement Conducted to Date*

OPG is committed to proactive, open and ongoing engagement. OPG has and will continue to provide a variety of opportunities for engagement with the public, stakeholders and other interested groups, both in-person and virtually. OPG will continue to keep the public, stakeholders and interested parties engaged throughout the IA process, and will provide regular

updates on the project through its website, news releases, social media, community-based information sessions and events, and videos, among others.

On November 27, 2024, the Ontario Government announced it had asked OPG to begin discussions with leadership community and municipal leaders on its existing sites in Port Hope, Haldimand County and St. Clair Township to determine community support for all types of new energy generation, including nuclear, to meet Ontario's forecasted demand for electricity.

On January 15, 2025, stakeholders, community groups and interested parties from local municipalities, unions, industry suppliers, and members of the media were invited to attend a press conference at OPG's NNW site. During that press conference, Ontario's Minister of Energy publicly announced that the Ontario Government had asked OPG to explore opportunities for new nuclear energy generation at their Wesleyville site, following expressions of interest from the Municipality of Port Hope.

To date, OPG has completed a number of public engagement activities, including:

- Creation of an NNW Project-specific website (opg.com/Wesleyville) to provide project updates and information. The website also provides an opportunity for interested parties to subscribe to receive project updates.
- Creation of a project-specific email address (wesleyville@opg.com) to encourage dialogue, engagement and answering of questions.
- Creation and sharing of a project-specific timeline to outline project processes and opportunities for public input.
- Use of a toll-free information line (1-800-461-0034) to allow another mechanism for interested parties to contact OPG to discuss the project.
- News releases and social media posts providing updates on the project.
- One-on-one briefings with Port Hope Mayor, Chief Administrative Officer and all council members (beginning January 2025).
- Creation of a joint working group with Port Hope staff to provide briefings and ongoing updates (February 2025).
- Stakeholder emails, sent to stakeholders and interested parties introducing the potential project (March 2025) and providing an update on progress (October 2025).
- Regular briefings held with local stakeholders, community groups and interested parties (including Friends of Wesleyville, Willowbeach Field Naturalists, Northumberland Land Trust, Ganaraska Region Conservation Authority (GRCA) (Ongoing).

- An introductory letter on the project delivered to near-site neighbours, including direct contact information to OPG's project engagement team (April 2025).
- A project newsletter, mailed to all postal codes within the Township of Port Hope (April 2025).
- Project overview presentations and tours completed with the Port Hope Mayor, Chief Administrative Officer, members of council and the Port Hope Chamber of Commerce. (March-July 2025).
- Monthly community updates provided to local stakeholders (Mayor, Chief Administrative Officer, Chamber of Commerce, Member of Provincial Parliament) to provide ongoing updates on project activities.
- A series of four information sessions was held locally in the Port Hope community to provide an overview of the project and offer an opportunity to discuss and ask questions (April 2025).
- An early engagement survey, accessible at the public information sessions, sought to understand the community's preferred methods of learning about the proposed project, the topics they are most interested in, and their preferred ways of providing feedback (April 2025).
- Delegations to local Port Hope Council (Planned quarterly updates provided May 2025, September 2025).
- Opening of the Port Hope Nuclear Discovery Centre (information centre) (2025).
- Launched project information video (Summer 2025).
- NNW Project brochure published and mailed to all homes in Northumberland County and the Municipality of Port Hope (October/November 2025).
- Participation in/information booth at industry and municipal conferences (Canadian Nuclear Association, Ontario East Municipal Conference, Association of Municipalities of Ontario).
- Project information/booths at a variety of local community events, including:
 - Port Hope Library Lunch and Learn
 - Sponsored swim and skate events at local community centres
 - Port Hope Float your Fanny Down the Ganny
 - Northumberland Highland Festival
 - Cobourg Sandcastle Festival
 - Port Hope Arts Festival
 - Port Hope Fall Fair.

1.5.2 *Key Issues Raised by the Public and Other Groups*

Table 2 provides a summary of key interests and issues raised through engagement to date, through the pre-planning phase of the project. Information on how OPG has, or plans to address the comments, interest and issues is also provided. The information has been organized into themes.

Table 2: Summary of Key Issues (Public Engagement)

Theme	Issue or Concern Raised	Current Plan to Address Interest or Issue
Need for the Project	<ul style="list-style-type: none"> interest in understanding the demand for electricity in the province and future projections 	<p>The need for the NNW Project has been provided in section 2.2 of this IPD.</p>
Project Details	<ul style="list-style-type: none"> questions about how much electric capacity is being considered for the project questions about where on the NNW site the proposed project will be built questions about the cost of the potential project 	<p>Preliminary project information has been included in the IPD to support many of the questions raised during the pre-planning phase of the project. The project will be refined further, and additional information will be provided in the Impact Statement.</p> <p>Siting information has been included in sections 2.3.5 and 2.3.6 of this IPD.</p>
Local Municipal Government Engagement	<ul style="list-style-type: none"> questions about how municipal government can be involved early and throughout the process so they can anticipate and plan for potential economic effect (growth/development) of the project discussions around financial support to local municipalities to participate in the federal IA process questions about the role of municipal governments in the federal IA process the desire for the municipality to have their own engagement process, separate and distinct from that of OPG or the Agency 	<p>OPG will continue to engage with local municipal government throughout the IA process. This engagement will include, but not be limited to:</p> <ul style="list-style-type: none"> monthly meetings with local government officials including the mayor and CAO regular email updates to all 6 members of council and the mayor quarterly or as required presentations to council by project leaders collaboration and support offered by OPG on municipal engagement

Theme	Issue or Concern Raised	Current Plan to Address Interest or Issue
		<p>A joint MOU was drafted and received by Port Hope council, to establish a framework for collaboration between the Municipality of Port Hope and OPG.</p> <p>The Municipality of Port Hope received \$1 million in capacity funding from OPG in December 2024. This funding is intended to be annual to support planning and infrastructure assessments until project approvals and subsequent host agreement discussions.</p>
<p>Community and Stakeholder Engagement</p>	<ul style="list-style-type: none"> • interest in community involvement, attendance at local events and where community members can get more information • interest in being part of focus or engagement groups on the project • suggestions on types, timelines and cadence of community engagement including townhall style sessions, addressed mail, road signage and promoted social media • interest in the how the approval/decision-making process for the project will involve stakeholders and the public • interest from environmental / naturalist groups in forming a working group for engagement and IA 	<p>OPG will continue to engage with local communities and stakeholders throughout the IA process.</p> <p>This engagement will include, but not limited to:</p> <ul style="list-style-type: none"> • offering a wide range of advertising methods for planned engagement opportunities, considering feedback from the public and local council i.e.: targeted mailings for Port Hope residents, installation of road signage, employing popular locations (i.e., grocery stores and libraries), social and paid media (e.g., local radio), local events, OPG’s website and public information centre

Theme	Issue or Concern Raised	Current Plan to Address Interest or Issue
	<ul style="list-style-type: none"> discussions community involvement for sustainable development 	<ul style="list-style-type: none"> adding interested individuals to our stakeholder list, to be included on regular stakeholder emails regular meetings and working groups with environmental groups i.e.: Willowbeach Field Naturalists, Northumberland Land Trust and Friends of Wesleyville monthly stakeholder emails to environmental groups and conservation authorities hosting public information sessions (in variety of styles/settings) in rural and urban settings and at timeslots to ensure participation from all demographics sponsoring public swims and skates to maintain visibility and meet the public in areas they frequent staffing a local public information centre in a central location in Port Hope, where the public can attend to speak with project members, ask questions and find out where we will be in the community next
<p>Rights-Holding First Nations and Interested Indigenous Communities</p>	<ul style="list-style-type: none"> questions on how First Nations and Indigenous communities will be consulted and their rights respected 	<p>OPG will continue to engage with Rights-holding First Nations and interested Indigenous communities and the public throughout the IA process. This process will include engaging with Rights-holding First</p>

Theme	Issue or Concern Raised	Current Plan to Address Interest or Issue
		<p>Nations to understand real and potential impacts to Aboriginal and Treaty rights.</p> <p>A preliminary summary of engagement with Rights-holding First Nations and interested Indigenous communities is provided in Section 1.4.</p>
IA Process	<ul style="list-style-type: none"> • questions on the purpose, process and timeline of a federal IA • interest in considerations of cumulative effects of the proposed project and other operating nuclear facilities and projects • interest in current and future site assessment activities • questions on the potential project timeline, including regulatory approvals • discussions on real and potential environmental IAs and community involvement for sustainable development 	<p>The federal IA process is comprised of five distinct phases. Specific information on the five phases of an IA can be found on the Agency’s webpage including the activities to be undertaken by the Agency, the integrated review panel, and the proponent; engagement with Rights-holding First Nations and interested Indigenous communities, the public and federal/provincial authorities.</p> <p>As part of the IA, OPG will be completing a Cumulative Effects Assessment. More information on Cumulative Effects Assessment is provided in Section 6.3.</p> <p>A preliminary schedule of the project can be found in Section 2.5.</p>
Real and Potential Project Impacts	<ul style="list-style-type: none"> • questions about habitat restoration • questions raised about the potential effects on the Waterfront trail 	<p>The NNW Project will be refined further, and additional studies, such as noise and traffic assessment, will be completed and provided in the Impact Statement.</p>

Theme	Issue or Concern Raised	Current Plan to Address Interest or Issue
	<ul style="list-style-type: none"> • questions on the potential effects from the project on Lakeshore and Willow Beach Roads • interest in potential effects to traffic patterns and noise levels, specifically along Lakeshore Road 	<p>During working group presentations and information sessions government reviewers, stakeholders and the public, OPG will share current site maps to depict potential effects to local roads near site and remediation efforts. Key information related to road, traffic and noise levels will also be shared on OPG’s website and through regular mailings to local residents.</p>
<p>NNW Site Ecology</p>	<ul style="list-style-type: none"> • discussion on ecosystem protection • further discussions regarding strategic planning between organizations such as Willow Beach Field Naturalists and Northumberland Land Trust (and possibly others) on the preservation of NNW site areas • interest in establishing a Natural Conservation Area at Wesleyville. Key topics included boundary development and ecological classifications 	<p>Information related to the preliminary characterization of the NNW site as well as summary of vegetation communities, bird communities and terrestrial wildlife including amphibians and reptiles, mammals and insects, and potential species at risk at the NNW site can be found in Section 3.4.</p> <p>OPG will offer frequent meetings and working groups with environmental groups and monthly stakeholder emails to environmental groups and conservation authorities.</p>
<p>Economic Effects</p>	<ul style="list-style-type: none"> • interested in the benefits to the host community, job numbers, and how Clarington and Port Hope can collaborate on economic development • interest in the structure for growth readiness funding and future community host agreement 	<p>The Conference Board of Canada studied the potential economic benefits of constructing a large nuclear generation project at the OPG Wesleyville site, using a scenario of 8,000-10,000 MWs station (which could power 8 to 10 million homes), and pulling from other large nuclear projects as benchmarks. The</p>

Theme	Issue or Concern Raised	Current Plan to Address Interest or Issue
	<ul style="list-style-type: none"> • interest in career opportunities as part of the project and nuclear industry • interest in the effect of the project to housing cost • interested in co-location opportunities and local supply chain business opportunities 	<p>study is publicly available on the project website (opg.com/wesleyville).</p> <p>OPG will complete a socio-economic effects assessment to support the Impact Statement. Information pertaining to the socio-economic effects assessment is contained in Section 6.2 of this IPD. Studies to characterize existing conditions include but not limited to:</p> <ul style="list-style-type: none"> • socio-economic features mapping and field reconnaissance • Statistics Canada data collection program • Public Attitude Research • key stakeholder interviews • tourist and day user survey • site neighbor survey • nuclear service industry survey
Waste Management	<ul style="list-style-type: none"> • questions on the type of waste produced by a nuclear station and the process by which it is stored. • interest in types of isotope production from nuclear stations and associated benefits. • questions about the types of waste the project may create 	<p>A list of the types of waste and emissions that are likely to be generated — in the air, in or on water and in or on land — during any phase of the project can be found in Section 5.10 of this IPD.</p> <p>A preliminary list of the licences, permits, approvals, and authorizations to perform site preparation and construction for the NNW Project, as they relate to waste management</p>

Theme	Issue or Concern Raised	Current Plan to Address Interest or Issue
		<p>has been provided in Annex C. Permits, Licences, Approvals and Authorization.</p> <p>Regular and ongoing public engagement on waste, with support from OPG’s Nuclear Sustainability team, including storage, long-term management and isotope production continues.</p>
Emergency Preparedness	<ul style="list-style-type: none"> • questions around the definition of an exclusion zone and the size of the exclusion zone for the project • questions on emergency service requirements and necessary infrastructure to support emergency management 	Detailed studies on-site layout, exclusion zone, and emergency preparedness will take place as part of the IA. More information on these can be found in Section 2.3.3.
Land Use	<ul style="list-style-type: none"> • questions on land use and the acquisition and/or expropriation of land adjacent to the NNW site 	Ongoing engagement with stakeholders in the local community, including near-site neighbours, will continue to take place on land use, making clear that OPG does not have expropriation rights, and detailed information will be provided in the Impact Statement for the NNW Project.
Technology	<ul style="list-style-type: none"> • what types of nuclear technologies are being considered and what are their safety, efficiency and environmental effects? • questions about what technologies are being considered/which technology will be selected 	The size of the facility would depend on the type of nuclear technology that is suitable for the NNW site. Over the next several years, detailed evaluations of a range of nuclear technologies will be conducted to select the most suitable technology using criteria that includes safety, efficiency, environmental impacts including emissions, and economics.

Theme	Issue or Concern Raised	Current Plan to Address Interest or Issue
		Section 2.3.1 of this IPD details initial technology information. Ongoing engagement and dialogue will continue throughout the IA process.
Other	<ul style="list-style-type: none"> • questions about the capacity of current transmission lines and the need/planning for additional transmission 	Additional transmission that may be required will be conducted by a transmission and distribution service provider (like Hydro One) under a separate environmental assessment process.

1.5.3 Plans for Engagement with the Public and Other Groups

OPG is committed to being an engaged and productive member of its host communities. This includes engaging with potential host communities in a manner that aligns with OPG's reputation as a trusted corporate citizen and neighbour.

OPG's stakeholder engagement plan will document proposed activities for the IA phase of the NNW Project. The plan will be guided by the following key principles:

- All communications and outreach activities will meet all regulatory and OPG corporate requirements (as applicable); specifically:
 - CNSC REGDOC 3.2.1 (Public Information and Disclosure) (Canadian Nuclear Safety Commission, 2018)
 - OPG governing document N-STD-AS-0013 (Nuclear Public Information and Disclosure).
- inclusion of all interested public and other groups at a level of involvement suitable to their needs and interests.
- flexibility to respond to unanticipated issues and stakeholder input, concerns and comments brought forward in project planning and carrying out of the IA process.

This plan will be designed to be flexible and responsive. As such, it will be considered a living document subject to review and modification in response to stakeholder input and unanticipated opportunities, events, or issues as they arise. As the Project advances, this plan will be updated to reflect anticipated activities.

OPG remains committed to ensuring the public and stakeholders with an interest in the NNW Project are provided with relevant information and have the opportunity to engage with OPG. Information will be communicated in a number of ways based on interests and preferred means of communication. Plans for future engagement include:

- updates to the NNW Project website
- NNW Project information line and email address
- public engagement opportunities in the local community, advertised using local media and social media
- news and media releases
- site tours, briefings and presentations to stakeholders, community groups, and the public
- NNW Project update emails and letters
- delivery of NNW Project mailers and newsletters

- development of communication tools including infographics, plain language summaries, factsheets and videos
- public information sessions and town hall meetings to discuss the project
- focused workshops to engage with groups and organizations on topics including socio-economic conditions, human health and wellbeing and the environment
- delegations to local municipal council
- information booths at local community facilities and events.

Future engagement plans will be flexible and adaptive, evolving in response to the feedback we receive to ensure we continue to meet the needs of the local communities, key stakeholders, and the public.

1.6 Regional Assessments

OPG is not aware of any ongoing or planned regional assessments, as defined under sections 92 and 93 of the IAA, which would include the NNW site. Two environmental assessments were completed in Port Hope and Port Granby. These assessments were started in November 2001 and completed under the Canadian Environmental Assessment Act 1992. These projects were titled:

- Port Hope Long-Term Low-Level Radioactive Waste management Project (completed January 2007)
- Port Granby Long-Term Low-Level Radioactive Waste management Project (completed January 2009).

Both projects concluded they could proceed with appropriate mitigation measures in place. The outcomes supported the safe cleanup and long-term containment of historic low level radioactive waste⁴³ (LLW) and marginally contaminated soils, ensuring protection of human health and the environment in compliance with federal environmental standards. Additional studies have been completed within the Port Hope region, within approximately 15 km of the NNW site, which may be relevant to the project. These are summarized below and include the:

- Environmental Protection Review Report: Port Hope Area Initiative (PHAI) (Canadian Nuclear Safety Commission, 2022)

⁴³ The historic low-level radioactive waste and contaminated soils associated with these projects are a consequence of past practices involving the refining of radium and uranium, and include contaminated soils and rocks, contaminated recycled building materials, and contaminated sediment in the harbour at Port Hope.

- Lake Ontario Canadian Nearshore Assessment, 2019 (Environment and Climate Change Canada, 2022).

The Environmental Protection Review Report for PHAI details the results of environmental monitoring and assessment related to the cleanup and long-term management of historic LLW in the Port Hope area. The LLW was a result of radium and uranium refining by a former federal Crown corporation (Eldorado Nuclear) and its private-sector predecessors from the 1930s to 1980s. The report covers a suite of biophysical environmental parameters, including air quality, surface water, groundwater, soil, and non-human biota monitoring, ensuring compliance with regulatory requirements and the protection of human health and the environment. Also highlighted within the report is the ongoing remediation efforts, progress in waste management, and community engagement initiatives, and the aim to restore and maintain a safe environment for current and future generations. The assessments cover various areas in Port Hope, including the new waste management facility south of Highway 401 and west of Baulch Road.

The 2019 Lake Ontario Canadian Nearshore Assessment report (Environment and Climate Change Canada, 2022) mentions that the Port Hope area faces specific environmental challenges, including contamination from historical industrial activities, which affect sediment quality and aquatic habitats. The assessment took place along the Canadian shoreline of Lake Ontario, aiming to evaluate environmental health and identify potential pollution sources. This included regions around Port Hope, but the assessment is broader and extends beyond the immediate vicinity. Efforts are being made, through Environment and Climate Change Canada (ECCC), to manage and remediate these issues to protect the nearshore environment and improve water quality in the region.

The MS-WTFNs-led Impact Assessment may include a landscape-based, regional cumulative effects approach, in order to align with our ways of knowing and being, which honours the interconnectedness of all aspects of place and of our Relatives.

1.7 Strategic Assessments

The Strategic Assessment of Climate Change (SACC) provides documents and guidelines to quantify the GHG emissions throughout the Project phases. These guidance documents include:

- Strategic Assessment of Climate Change (Environment and Climate Change Canada, 2020)
- Draft: Technical Guide Related to the Strategic Assessment of Climate Change (Environment and Climate Change Canada, 2022) Guidance on quantification of net GHG

emissions, impact on carbon sinks, mitigation measures, net-zero plan and upstream GHG assessment

- Draft Technical Guide Related to the Strategic Assessment of Climate Change: Assessing Climate Change Resilience (Environment and Climate Change Canada, 2021).

OPG is not aware of any other strategic assessment relevant to the proposed project that has been conducted under section 95 of the IAA.

2. Part B – Project Information

OPG, through dialogue with MS-WTFNs, has come to understand that the following sections were formulated and are presented primarily through a Western Scientific lens. While the evidence and conclusions of western science and ways of knowing have been centred by OPG within this section, it is OPG's desire to work with Rights-holding First Nations and interested Indigenous communities to incorporate Indigenous Knowledge into the project and the IA process, where we can, as we move forward.

We have contributed to this IPD, in good faith, facets of our ways of knowing and being. Our Knowledge is based on our intergenerational experiences, memories, and stories. Our contributions are intended to underscore our connection to, and the importance of, the NNW site, and surrounding area, to our identity, culture, values, Rights, and wellbeing. We seek to ensure that our perspectives, concerns and the real and potential adverse impacts and effects of the NNW Project to our communities and our ways of life are captured early on in the IA process. We wish to acknowledge the Lands, Waters and all Relatives, which have provided gifts, instructions, and Knowledge that have informed our contributions to this IPD. We wish to acknowledge that many of our Relatives are already being impacted at the NNW site through preliminary studies and early assessment activities related to the NNW Project.⁴⁴

An overview of the NNW Project's purpose, need, and schedule including all activities, infrastructure, and physical works that will be carried out or constructed throughout all the project phases has been provided below. Alternative means of carrying out the NNW Project have been described.

2.1 Project Designation under the Physical Activities Regulation

The site preparation, construction, operation, and decommissioning of a new nuclear reactor over 200 MWth on an unlicensed site is a designated project, under the *Physical Activities Regulations* (item 27 in the Schedule) under the IAA. Additionally, the construction and operation of a new facility for the storage and management of irradiated nuclear fuel or nuclear

⁴⁴ We reiterate that our contributions do not equate to support or endorsement for the NNW Project, nor do we agree with everything presented in this document. OPG has made several decisions that have informed this document that the MS-WTFNs were not involved in. Examples include, but are not limited to, determination of the purpose and need (section 2.2), schedule, infrastructure, and physical work, including phasing and alternative means to carrying out the NNW Project (Section 2.3). MS-WTFNs have the authority to make decisions regarding real and potential adverse impacts and effects to our homelands and Treaty Territories and request that this authority be acknowledged, respected and upheld by OPG, the Agency and the CNSC.

waste on an unlicensed site is also a designated project, by *Physical Activities Regulations* (item 28 in the Schedule) under the IAA. The proponent is required to submit an IPD to the Agency that meets the requirements of the IMTLR.

The NNW Project could generate up to a total of approximately 10,000 MWe which equates to over 30,000 MWth on a site not currently licensed for an existing Class IA nuclear facility, making it potentially subject to an IA. Additionally, OPG is considering alternatives for the on-site storage of irradiated fuel, which would require additional consideration within the overall IA process.

The IA must fully assess all real and potential adverse impacts and effects that result from the NNW Project. This includes, but is not limited to, how nuclear waste will be managed, stored, and transported in our homelands and Treaty Territories, not only in the interim, but also through long-term storage solutions. Innovative approaches to nuclear waste management, storage, and transportation should be pursued, including recycling/other uses for used or unspent nuclear fuel. Nuclear waste, waste management, waste storage, and waste transportation must conform to Article 29(2) of UNDRIP and require FPIC from Indigenous peoples (i.e. the MS-WTFNs and any other potentially impacted Rights-holding First Nations) for the storage or disposal of hazardous waste within their territories. Nuclear waste management activities must be informed and guided by *Canada's Policy for Radioactive Waste Management and Decommissioning* (Government of Canada, 2023) and uphold our decision-making authority.

2.2 Project Purpose and Need

Canada has committed to reaching net-zero greenhouse gas 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.

The NNW Project directly supports Canada's Net Zero goal by providing reliable, low-emitting electricity to help decarbonize Ontario's grid and meet growing energy demands. Ontario, guided by the Integrated Energy Plan and working IESO, aims to maintain a clean, reliable, and affordable electricity grid through investments in nuclear, renewables, and emerging technologies. The Integrated Energy Plan emphasizes the need for expanded clean electricity generation, electrification of key sectors, and innovation to meet climate targets and ensure energy security. The IESO's *Pathways to Decarbonization* (Independent Electricity System Operator, 2022) study outlines scenarios for achieving a net-zero electricity grid by 2050,

emphasizing the roles of nuclear power, renewables, and energy storage in meeting both provincial and national climate commitments.

The NNW Project is tied to provincial initiatives for decarbonizing Ontario's electricity system by 2050 as outlined in the provincial IESO *Pathways to Decarbonization* report (Independent Electricity System Operator, 2022) and supported by Ontario's Integrated Energy Plan *Energy for Generations* (Ministry of Energy And Electrification, 2025). The IESO report adopted a holistic approach to evaluate and consider multiple low-carbon technologies that could satisfy the projected growth of Ontario's future energy needs. The assessment led to the recommendation of a diverse energy mix, where nuclear power is just one component among several. The report highlights the importance of integrating various low-carbon options, including renewable sources like wind and solar, as well as energy storage solutions, to achieve a reliable and resilient grid. The evaluation of alternatives affirms that the IESO has thoroughly considered the overall energy mix to meet Ontario's decarbonization goals effectively.

Ontario's *Energy for Generations* (Ministry of Energy And Electrification, 2025) plan and IESO's *Pathways to Decarbonization* report (Independent Electricity System Operator, 2022) recognize nuclear energy as a reliable and clean energy source with a high energy density and a small footprint, making it an ideal candidate to help meet Ontario's projected need for additional capacity by 2050. Neither positions nuclear as the sole solution, considering, instead, a diversified decarbonized supply mix that includes contributions from new nuclear facilities. Given that large-scale infrastructure projects like hydroelectric and nuclear facilities, as well as transmission infrastructure, require 10 to 15 years to develop, the report advocates for the initiation of planning, siting, and environmental IAs now to ensure these options are viable by the 2030s and beyond. Should Ontario decide to decarbonize, the IESO report and Ontario's plan highlight the need for early actions, including beginning the necessary groundwork for new nuclear, long-duration storage, and hydroelectric projects, alongside essential transmission infrastructure, to expedite their deployment when needed.

Low-carbon, reliable nuclear power will be critical to achieving OPG's net-zero goals. OPG's Climate Change Plan (Ontario Power Generation, 2024) is focused on achieving net-zero carbon emissions, reinforcing OPG's commitment to sustainable energy production. OPG's Climate Change Plan outlines strategies such as maintaining nuclear power generation, expanding hydroelectric capacity, investing in new clean energy technologies, and enhancing energy efficiency across operations. It also includes initiatives for carbon capture and storage, electrification, and support for broader efforts to reduce carbon emissions in Ontario and beyond.

Today, as Ontario's economy, demand for clean electricity, and the importance of energy security grows, so too does the need to explore the potential for new large nuclear. Developing options for new energy generation is part of Ontario's Integrated Energy Plan, the government's vision as it plans for rising energy needs. The proposed development of new nuclear projects by OPG supports achievement of the two major goals of OPG's Climate Change Plan and serves as a response to the IESO's electricity demand growth projections for Ontario.

The NNW site is situated on approximately 540 ha (1,300 acres) of land that has been municipally zoned and maintained for electricity generation for more than 50 years. The NNW site has close access to transmission, rail, and road infrastructure, and is in a region of Ontario experiencing significant growth. Early studies indicate the NNW site could support up to approximately 10,000 MWe of new nuclear generation, which is enough to power the equivalent of ten million homes.

The current plan is to submit a LTPS application together with the Impact Statement (IS), where site preparation will include activities related to a nuclear facility (Class IA) and a potential waste facility (Class IB).

OPG is considering future options for the interim storage of L&ILW and spent fuel on-site or in an off-site licensed facility. Should the decision be made to store waste on-site, OPG's future applications will be of a site licence that includes activities related to the nuclear facility and the waste facilities.

Rigorous safeguards and transparent monitoring systems must be established to prevent harm from nuclear waste to the environment, to our communities, and to our Relatives. Mutually agreed upon processes to uphold our decision-making authority with respect to the management, storage, and transportation of nuclear waste within and near our homelands and Treaty Territories must be established. Safeguards and monitoring systems must be guided by the MS-WTFNs.

We express concern that the IA may not fully address how nuclear waste will be managed, stored, and transported. We express concern about any action by OPG or the Crown to defer such considerations to future decision points or regulatory processes, which limits the ability to truly contemplate real and potential adverse impacts and effects of the NNW Project.

The IA must fully address how nuclear waste will be managed, stored, and transported, not only in the interim, but also through long-term storage solutions. Innovative approaches to nuclear waste management, storage, and transportation should be pursued, including recycling/other uses for used or unspent nuclear fuel. Nuclear waste, waste management, waste storage, and waste transportation must conform to Article 29(2) of UNDRIP, including the requirement of FPIC from Indigenous peoples (i.e., the MS-WTFNs, and any other potentially impacted Rights-

holding First Nations) for the storage or disposal of hazardous waste within or near their Territories. Nuclear waste management activities must be informed and guided by *Canada's Policy for Radioactive Waste Management and Decommissioning* (Government of Canada, 2023) and uphold our decision-making authority.

2.2.1 Alternatives to the Project

As noted, the NNW Project supports Ontario's Integrated Energy Plan *Energy for Generations* (Ministry of Energy And Electrification, 2025), and the findings of the IESO's *Pathways to Decarbonization* report (Independent Electricity System Operator, 2022). IESO's approach also included evaluating different approaches to decarbonization including contributions from new nuclear, conservation, demand response, renewables, and emerging low carbon generating technologies like hydrogen and renewable natural gas. The IESO 2025 *Annual Planning Outlook* (APO) (Independent Electricity System Operator, 2025) 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 the de-carbonization objectives.

In the case of a nuclear energy project, an assessment of energy mandates established through federal and provincial legislation or policy may not be within the scope of the IA⁴⁵ (Impact Assessment Agency of Canada, 2023), therefore, no alternatives to the project are being considered.

An alternative to the NNW Project includes returning the Lands, Waters and all Relatives within the NNW site to our communities. We continue to hold deep connections and relationships with the Lands, Waters and all Relatives within and surrounding the NNW site. Our relationships have been disrupted by the imposition of Crown and private ownership of the Lands and shorelines, which has limited our access to the NNW site and other areas of spiritual and cultural significance within and near the NNW site. If OPG did not own the NNW site, the Lands, Waters and all Relatives within it would be readily cared for and visited by our people. We would readily return to care for our *Aanikoobiganaanan* and our Relatives, as well as to harvest, as has been done since *me'wzha*.

⁴⁵ Ontario asked OPG to explore opportunities for new nuclear generation at its Wesleyville site on January 15, 2025. The potential development of the NNW Project is also acknowledged in Ontario's first Integrated Energy Plan, *Energy for Generations* released in June 2025.

2.3 Alternative Means of Carrying out the Project

In July 2023, The MEM released *Powering Ontario's Growth: Ontario's Plan for a Clean Energy Future* (Ministry of Energy and Electricity, 2025), as Ontario's official response to the IESO's *Pathways to Decarbonization* report and registry consultation. The report outlines Ontario's plan to meet the province's growing demand for electricity.

On November 27, 2024⁴⁶ the Ontario Government asked OPG to begin discussions with leadership of Rights-holding First Nations and interested Indigenous communities, as well as with community and municipal leaders on its existing sites in Port Hope, Haldimand County and St. Clair Township to determine community support for all types of new energy generation, including nuclear, to meet Ontario's demand for electricity.

On January 15, 2025 the Ontario Government asked OPG to explore opportunities for new nuclear generation at its Wesleyville site, following a formal expression of interest from the Municipality of Port Hope. The potential development of the NNW Project is also acknowledged in Ontario's first Integrated Energy Plan, *Energy for Generations* released in June 2025. *Energy for Generations* provides a coordinated, long-term approach to meeting Ontario's affordable energy needs.

It will require several years for OPG to undertake the necessary work, in collaboration with Rights-holding First Nations and interested Indigenous communities and the local community, before it can be determined whether the NNW site can proceed to support new power generation. As it will be a designated project under the Physical Activities Regulations (See Section 2.1), an IA will be undertaken⁴⁷. Before a decision is made to proceed, technically and economically feasible alternative means of carrying out the Project will be evaluated, including the assessment of best available technologies.

Sections 2.3.1 –2.3.9 outline the various alternatives that are being considered for the NNW Project. At this early stage of planning, detailed analysis of the real and potential environmental impacts, and economic considerations of each alternative means of carrying out the project has not yet been completed. The information provided in the following sections is conceptual and OPG recognizes that analysis to characterize these important considerations, in collaboration with the MS-WTFNs will be required as the IA process progresses. During the future analysis of alternative means there will be opportunities for Indigenous and public participation. The

⁴⁶ <https://news.ontario.ca/en/release/1005403/ontario-generating-more-energy-to-meet-soaring-demand>

⁴⁷ During the planning phase of the IA process, the Agency will decide whether an IA is required for the NNW Project based on factors listed in Section 16 of the IAA.

alternative means and general approach planned for inclusion in the assessment are summarized in Section 2.3.9.

A full analysis of real and potential adverse impacts and effects to our communities, to our Relatives, to our Rights, and to our ways of life has not yet been completed. Additional studies including, but not limited to, an Indigenous Knowledge Study, Cumulative Impact Assessment, and Rights Impact Assessment, which consider all alternatives are required, at a minimum. Such additional studies will allow our communities, OPG, the Agency, and CNSC to have a more fulsome understanding of the real and potential adverse impacts and effects of the NNW Project. This understanding is critical to making informed decisions. To this end, we intend to pursue a MS-WTFNs-led Impact Assessment for the NNW Project. Decisions regarding potential alternatives to carrying out the NNW Project must include our involvement and uphold our decision-making authority.

2.3.1 *Alternative Reactor Designs*

A specific reactor technology has yet to be chosen for the NNW site and as such OPG will be following a Plant Parameter Envelope (PPE) approach for licensing the NNW site. The use of a PPE is consistent with the CNSC regulatory document REGDOC-1.1.1 (Site Evaluation and Site Preparation for New Reactor Facilities).

The PPE concept has been applied in the nuclear power reactor licensing process for several years in the United States (U.S.) and has been successfully applied in recent Canadian nuclear projects such as the Darlington New Nuclear Project (DNNP). In selecting the PPE approach, OPG has considered the *Preliminary advice on the use of a bounding approach*, jointly prepared by the Agency and the CNSC, provided to OPG in 2023 (Impact Assessment Agency of Canada and the Canadian Nuclear Safety Commission, 2023). A PPE is a tool that can be used in the assessment and licensing of new nuclear facilities. The PPE outlines a set of plant design parameters used when a specific reactor technology has not yet been selected for a proposed site. The PPE can be thought of as forming an envelope around a set of parameters representing a range of nuclear power plants and their associated facilities that may be deployed. It allows for the evaluation and initiation of licensing processes for situations where there may be multiple applicable reactor technologies. The PPE involves identifying a representative set of reactor designs and their characteristics, such as electrical generating capacity, land area use, and design life, and uses these to create an envelope of parameters that provides details to support the impact and safety assessments. The PPE includes parameters to quantify all relevant project components, allowing the PPE to capture all manners the project influences the IA for any of the reactor technologies considered. The OPG

PPE forms a representative envelope encompassing Pressurized Water Reactors (PWRs), Pressurized Heavy Water Reactors (PHWRs) and Boiling Water Reactors (BWRs). Examples of reactor technologies which have been considered as part of OPG's PPE include:

- PWR – Westinghouse's AP1000 or EDF's Evolutionary Pressurized Reactor (EPR)
- PHWR – CANDU such as AtkinsRealis' CANDU MONARK
- BWR – GE-Hitachi's BWRX-300

These are not reactor technologies which have been chosen for the NNW Project but are representative examples that the PPE encompasses.

The PPE approach enables the assessment of real and potential impacts based on a conceptual design that incorporates key features from the range of reactor technology options encompassed by the PPE. The real and potential impacts determined using the PPE would be representative of any reactor design that is encompassed by the PPE. Figure 1 below, visually illustrates the PPE concept. For each parameter of the PPE, such as electricity generation capacity, land area usage, and design life, the expanded boundary of the combined shape is meant to illustrate that the most impactful parameter from the various reactor technologies is always the one considered.

While it is possible that a preferred technology may be identified by OPG prior to the completion of the IA process, OPG is pursuing the PPE approach instead of choosing a preferred technology at the outset of the IA. Selecting a reactor technology is a complex long-term process. Additionally, the reactor technologies considered are at differing levels of design readiness; the PPE approach helps to ensure that assessments of real and potential adverse impacts or benefits undertaken as part of the IA are accurate or conservative as design readiness is progressed.

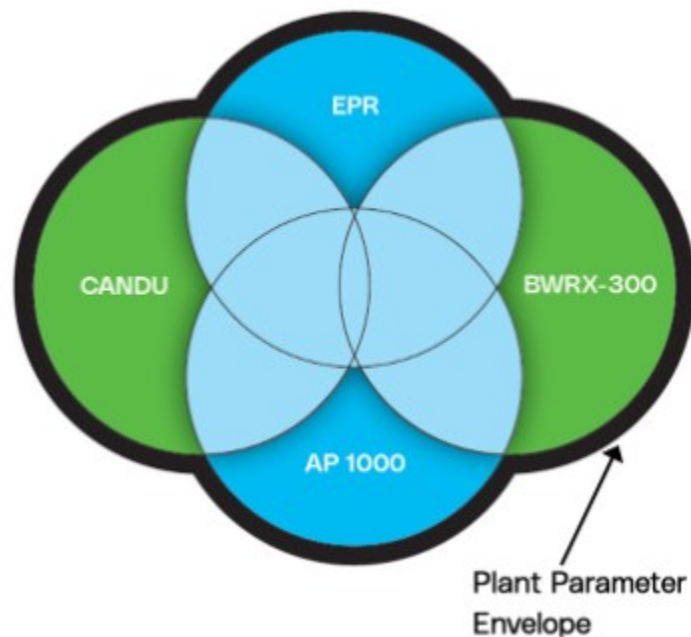


Figure 1: Visual Illustration of the PPE Concept

We express concern regarding the fundamental differences in understanding, between OPG and our communities, regarding the definition and application of both the operational range and PPE for the NNW Project. Nuclear waste generation is technology dependent, and the definition and application of the PPE shape how nuclear waste generation, storage, and their associated real and potential adverse impacts and effects are assessed.

Should the NNW Project proceed, and nuclear waste is stored on-site, yet outside of the PPE, it would be difficult to characterize. A shared understanding of the definition of the scope of the PPE, and its application, must be established between OPG, the Agency, CNSC, and the MS-WTFNs. Risks to our communities, to our Rights, and to the Lands, Waters and all Relatives must be adequately captured.

Mutually agreed upon plans for long-term nuclear waste storage must be established. All decisions regarding the selection of reactor technology, and the associated infrastructure and facilities, including nuclear waste management, storage, and transportation, must conform with Article 29(2) of UNDRIP, including obtaining our FPIC, and uphold our decision-making authority. We must be central decision makers with respect to nuclear waste storage and be directly involved with alternative means assessment; Our governance structures and long-term vision for our homelands and Treaty Territories, as well as protection of our Rights, must be upheld.

2.3.2 Alternatives for Circulating Cooling Water

Nuclear power plants rely on circulating cooling water systems to ensure the safe, continuous operation of the nuclear reactor. Several circulating cooling water technologies for the NNW Project are being considered for implementation including:

- once-through cooling
- natural draft cooling towers
- mechanical draft cooling towers
- mechanical draft cooling towers with plume abatement technology.

OPG has yet to select a circulating cooling water technology, therefore, the construction and operations related elements of all four circulating cooling water alternatives will be encompassed by the PPE. Selection of circulating cooling water technology will consider the Best Available Technology Economically Achievable (BATEA), and real and potential impacts to MS-WTFNs’ Rights, in continued discussions with Rights-holding First Nations. See Table 3.

Table 3: Alternative Means for Circulating Cooling Water

Technology Option	Description
Once-Through Lake Water Cooling	Involves the withdrawal of water from Lake Ontario, which is circulated through the condensers, and returned to the lake through an open-loop intake and discharge system. The scenarios to be assessed will include intake structure and diffusers for discharge at the lake bottom and not at surface.
Cooling Tower – Natural Draft	Involves a closed-loop system where water is drawn from the cooling tower, circulated through the condensers, and returned to the tower to be cooled. The warmer water from the condensers is sprayed into the tower interior as outside air is introduced to the tower near its base. As the air is cooler than the water, a transfer of heat takes place and the air warms. The principle of buoyancy creates a chimney effect, and the warm moist air will rise naturally, due to the density differential with the dry cooler outside air. Natural draft cooling towers are typified by a traditional hyperbolic shape and extend to approximately 150 m above finished grade. The evaporative effect results in a plume of moisture-laden air exiting the top of the cooling tower. The visibility of the plume is largely dependent upon weather conditions.
Cooling Tower – Mechanical Draft	Involves generally the same principle as natural draft towers (i.e., water is cycled between the condensers and the tower). However, in the case of mechanical draft towers, fans are used to force air through (fan at bottom of tower), or to draw air through (fan at top of tower) the tower to promote the cooling process. Mechanical draft towers are typically much shorter (approximately 20 m in height) than natural draft towers but require a much larger land area and use more energy

Technology Option	Description
	to operate the fans. The water is cooled by the same heat transfer principles of convection and evaporation. The evaporative effect associated with mechanical draft cooling also results in a vapour plume exiting the top of the tower.
Cooling Tower – Mechanical Draft with Plume Abatement Technology	A variant of hybrid wet/dry cooling towers, the tower contains the evaporative section to cool the circulating water and the dry section to abate or reduce the visible plume. Abatement works by taking the warm moist air that is created from the cooling process and cooling it to remove the condensation and letting it fall back into the tower. Abating the plume minimizes the potential for the vapour to condense and fall on the surrounding areas and reduces the visible plume. Mechanical draft towers with plume abatement technology are typically taller than traditional mechanical draft towers (approximately 28 m in height). Similar to traditional mechanical draft towers, mechanical draft cooling towers with plume abatement require a large footprint and increased energy to operate the fans.

Should the NNW Project proceed, all decisions regarding the selection of circulating cooling water and any associated infrastructure and facilities must include our involvement and uphold each MS-WTFN’s decision-making authority.

2.3.3 Alternative Site Layouts

OPG is in the process of determining the most suitable placement of infrastructure within the NNW site. As part of the IA process, OPG will identify siting constraints to help minimize impacts of the NNW Project, while balancing project cost and technological constraints. OPG is committed to listening to and considering feedback from engagement with Rights-holding First Nations and interested Indigenous communities, as well as local communities, as this input will play an important role in guiding decision-making as the NNW Project advances.

Should the NNW Project proceed, all decisions regarding the NNW site layout must include our involvement and uphold our decision-making authority. Site design must avoid and protect our *Aanikoobiganaanan*, as well as any sites or landscapes of cultural or spiritual significance to our communities. Site design must not undertake needless and unjustified impacts to our *kina ngadmawaad* cultural landscapes or to our Relatives. We have the sole authority to identify or validate the identification of any areas that require protection and avoidance.

The NNW site is directly adjacent to the Hydro One electricity corridor which hosts 500 kV high voltage transmission lines. Wesleyville is within a relatively short distance to urban centres as well as transborder connections.

Figure 2 below shows the on land and water portion of the NNW site to be considered in understanding alternative site layout options for the NNW Project. Some initial siting considerations, which are expected to be defined further as part of the IA process, include, but are not limited to the following:

- Power generating infrastructure is preferred to be sited adjacent to Lake Ontario to maximize pumping energy efficiency for any of the four circulating cooling water alternatives considered.
Decisions regarding appropriate avoidance, mitigation, compensation, restoration, and accommodation measures related to real and potential adverse impacts and effects to *Gchi Nibi*, and its shoreline, must uphold the decision-making authority of the MS-WTFNs, and be guided by our responsibilities, values and Knowledge.
- The NNW Project intends to minimize its impacts to the central wetland area of the NNW site as much as reasonably achievable.
Decisions regarding appropriate avoidance, mitigation, compensation, restoration, and accommodation measures related to real and potential adverse impacts and effects to any wetlands must uphold the decision-making authority of the MS-WTFNs, and be guided by our responsibilities, values and Knowledge.
- All structures containing radioactive materials are currently intended to be sited south of Lakeshore Road. This is to avoid the alternative of a public road (Lakeshore Road) intersecting an active nuclear site and require duplication of security infrastructure.
Siting of all structures must take into consideration avoiding and reducing real and potential adverse impacts and effects to our *kina ngadmawaad*, our cultural landscapes, to our Relatives and to any archaeological sites, and in particular any potential ancestral burial site(s). Decisions regarding appropriate avoidance, mitigation, compensation, restoration, and accommodation measures must uphold the decision-making authority of the MS-WTFNs, and be guided by our responsibilities, values and Knowledge.
- Project activities may extend beyond the existing shoreline into Lake Ontario for certain features or alternatives (such as submerged cooling water structures, near shore lake infill, or shoreline erosion protection).
Decisions regarding appropriate avoidance, mitigation, compensation, restoration, and accommodation measures related to real and potential adverse impacts and effects to *Gchi Nibi*, and its shoreline, must uphold the decision-making authority of the MS-WTFNs, and be guided by our responsibilities, values and Knowledge.
- The areas north of Lakeshore Road are not intended for siting of the power generation nor other nuclear infrastructure. These areas are being considered for administrative/storage buildings, electrical transmission connection, spoils management, and site construction support.
Siting of all structures must take into consideration avoiding and reducing real and potential adverse impacts and effects to our place, to our Relatives and to any archaeological sites, and in particular any potential ancestral burial site(s). Decisions regarding appropriate avoidance, mitigation, compensation, restoration, and

- accommodation measures must uphold the decision-making authority of the MS-WTFNs, and be guided by our responsibilities, values and Knowledge.
- A portion of the areas north of Lakeshore Road may be developed to accommodate third-party businesses. The location and boundaries of the industrial park have yet to be finalized and may be offsite. The industrial park is considered outside the scope of the NNW Project as it would not contain any essential components nor activities tied to the production of nuclear energy.

Any development and associated potential adverse impacts or effects of an industrial park in relation to the NNW Project must be determined collaboratively with the MS-WTFNs and uphold our decision-making authority.

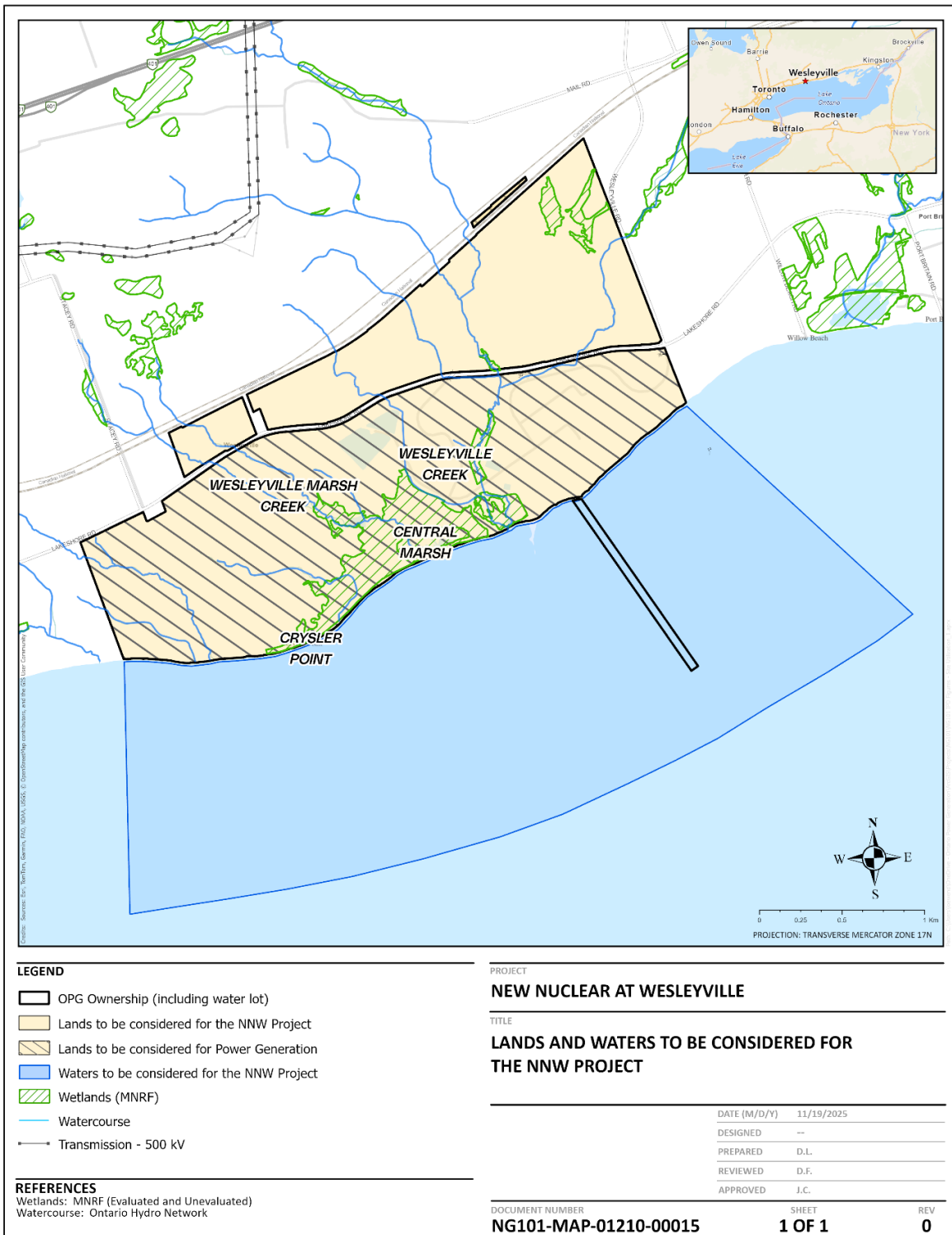


Figure 2: Lands and Waters to be considered in Alternative Site Layout Assessment for the NNW Project

2.3.4 *Alternative Methods for Site Preparation and Construction Approaches*

OPG will explore alternative means of completing specific site preparation and construction activities, including utilizing the expertise of an approved construction contractor to evaluate alternative site preparation and construction techniques.

Any site preparation and construction approaches must avoid any *kina ngadmawaad*, archaeological sites, and in particular our *Aanikoobigiganaanan* and ancestral burial site(s). Site preparation, and construction approaches must avoid, and where not possible, reduce impacts to our cultural landscapes and to our Relatives. A co-developed policy to protect our *kina ngadmawaad*, and to ensure that our *Aanikoobigiganaanan* are not impacted, must be established between the MS-WTFNs and OPG. Appropriate communication mechanisms must be established to ensure that we are promptly notified of any unintentional impacts to our *kina ngadmawaad*, so that they can be addressed in a manner which is aligned with our responsibilities, customs, and archaeological protocols. Constructor contractors and any other project personnel involved in ground disturbing activities must receive training in the identification of potential *kina ngadmawaad*, and archaeological and ancestral burial sites, including protocols to be taken after a rediscovery is made.

Should the NNW Project proceed, all decisions regarding site preparation and construction approaches must include the MS-WTFNs and uphold our decision-making authority. Site preparation and construction activities must avoid and protect any sites or landscapes of cultural or spiritual significance to our communities and must not undertake needless or unjustified adverse impacts or effects to our cultural landscapes and to our Relatives. We have the sole authority to identify or validate the identification of any areas that require protection and avoidance. A preliminary identification of aspects of our cultural landscapes, found within and surrounding the NNW site, are outlined within Figure 13.

2.3.5 *Alternatives for the Management of Low and Intermediate Level Radioactive Waste*

Canada's Policy for Radioactive Waste Management and Decommissioning (Government of Canada, 2023) notes that the management of radioactive waste includes interim storage and disposal⁴⁸, and should be undertaken according to the following four priorities:

⁴⁸ The CNSC's REGDOC-3.6, *Glossary of CNSC Terminology*, defines the terms "storage" and "disposal" as follows: (i) Storage: With respect to nuclear substances and radiation devices, possession for storage only; (ii) Disposal: The placement of radioactive waste without the intention of retrieval. For the purposes of this IPD, OPG adopts this terminology.

- Protection of health, safety, security of people and the environment, and ensuring nuclear non-proliferation.
- Inclusive engagement, openness, and transparency on radioactive waste management and decommissioning matters.
- Recognition of Canada's deep commitment to building partnerships and advancing reconciliation with Indigenous peoples related to the management of radioactive waste and decommissioning, based on the recognition of rights, respect, collaboration and partnership.
- Global excellence in the fields of radioactive waste management and decommissioning.

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 and interested Indigenous communities. The Integrated Strategy for Radioactive Waste (ISRW), developed by the Nuclear Waste Management Organization (NWMO) and accepted by the Minister of Energy and Natural Resources Canada, the Honourable Jonathan Wilkinson on October 5, 2023, recommends that the implementation of disposal solutions for LLW be undertaken directly by waste generators and waste owners. The ISRW further recommends that the implementation of disposal solutions for intermediate and high-level waste be undertaken by the NWMO. Waste generators and owners are responsible for interim storage of radioactive waste prior to disposal.

Alternative means for the management of L&ILW being considered for the NNW Project, include:

- Interim storage of the LLW and/or ILW on-site in one or more new, appropriately licensed LLW and/or ILW facilities to be constructed on-site including consideration of alternative sites.
- Interim storage of the LLW and/or ILW off-site at one or more appropriately licensed facilities including consideration of alternative sites.
- Transportation of the LLW and/or ILW off-site for processing and return of the waste to the site for interim storage in one or more new, appropriately licensed LLW and/or ILW facilities to be constructed on-site.
- Disposal in one or more appropriately licensed permanent disposal facilities.
- Any combination of the above alternatives, including the use of multiple alternatives in sequence.
- Appropriate transportation to and from off-site licensed facilities. The CNSC regulates the transportation of nuclear substances in accordance with the NSCA and its Regulations and other applicable requirements. OPG remains committed to continuing conversations with Rights-holding First Nations and interested Indigenous communities.

OPG has been safely transporting such wastes and other radioactive materials for over 50 years and OPG will apply this experience and expertise to the NNW Project. All transportation will comply with OPG's existing, approved systems and processes and any additional transportation packages required for new waste streams will be designed, licensed, and procured following existing processes and meeting applicable CNSC, Transport Canada and other applicable requirements. As is current practice, OPG will seek to exceed, or at a minimum meet any requirements to inform those Rights-holding First Nations and interested Indigenous communities who may be impacted by waste transported through their territories, as well as appropriate emergency responders along transportation routes, where appropriate.

The management, storage, and transportation of nuclear waste within our homelands and Treaty Territories is one of our greatest concerns. We also express concern regarding any transportation or storage of nuclear waste within any other Indigenous Territories without the approval of those impacted Rights-holding First Nations. Should the NNW Project proceed, all decisions regarding the management, storage, and transportation of nuclear waste, and all associated infrastructure and facilities must conform with Article 29(2) of UNDRIP, including obtaining our FPIC, and uphold our decision-making authority.

2.3.6 *Alternatives for the Management of High-Level Radioactive Waste (Used Nuclear Fuel)*

High-Level Waste (HLW) refers to (irradiated) nuclear fuel whose owners (i.e., OPG) have declared it as radioactive waste and/or which generates significant heat through radioactive decay (Government of Canada, 2021). In accordance with applicable legal requirements, design-specific used nuclear fuel storage facilities will be a feature of any reactor type selected for the NNW Project. In all cases, the storage system will consist of the transfer of the used nuclear fuel from the reactor to a water-filled storage pool (i.e., an irradiated fuel bay) in which the used nuclear fuel is stored for several years for a period of decay and cooling. After the used nuclear fuel has cooled sufficiently, it will be transferred into approved storage containers.

Alternative means for the management of used nuclear fuel, following sufficient cooling are being considered for the NNW Project, including, but not limited to:

- Interim storage of the HLW on-site in a new, purpose-built, appropriately licensed HLW facility to be constructed on-site, with HLW contained in fuel-specific dry storage containers.
- Long-term management of the used nuclear fuel by the NWMO, in accordance with its statutory mandate under the 2002 Nuclear Fuel Waste Act, or in another appropriately licensed facility⁴⁹.
- Any combination of the above alternatives, including the use of multiple alternatives in sequence.

The long-term management of the used nuclear fuel by the NWMO will be subject to a separate licensing and IA process. As a result, in this IA, OPG will evaluate and consider alternative potential on-site locations for a licensed HLW management facility for the interim storage of used fuel. In assessing alternatives, OPG will be guided by Section 3 of *Canada's Policy for Radioactive Waste Management and Decommissioning* (Government of Canada, 2023) and the perspectives of Rights-holding First Nations and interested Indigenous communities.

We have expressed concern regarding the transportation and storage of nuclear waste occurring within our homelands and Treaty Territories without our consent. We express concern about the

⁴⁹ As mandated in the 2002 Nuclear Fuel Waste Act, the NWMO was established by certain nuclear energy corporations (including OPG) to propose to the Government of Canada approaches for the management of nuclear fuel waste (HLW), and to implement the approach selected by the Government of Canada (Government of Canada, 2002). Funded by these nuclear energy corporations, NWMO is developing a Deep Geological Repository (DGR) for disposal of HLW.

transportation and storage of nuclear waste within any other Indigenous Territories without the consent of those impacted Rights-holding First Nations. Should the NNW Project proceed, all decisions regarding the management, storage, and transportation of nuclear waste, and all associated infrastructure and facilities must conform with Article 29(2) of UNDRIP, including obtaining our FPIC, and uphold our decision-making authority.

We express concern that the IA for the NNW Project may not fully assess real and potential adverse impacts and effects related to the interim and long-term management, storage, and transportation of nuclear waste. We express concern regarding any deferral of decisions regarding the interim and long-term management, storage, and transportation of nuclear waste. Such decisions cannot be left for future generations to solve; This is not consistent with our values, laws, or responsibilities to our Relatives, or to future generations. The IA must fully address how nuclear waste will be managed, stored, and transported, not only in the interim, but also through long-term storage solutions. Innovative approaches to nuclear waste management, storage, and transportation must be pursued, including recycling/other uses for used or unspent nuclear fuel.

Any decisions regarding nuclear waste, waste management, waste storage, and waste transportation must conform to Article 29(2) of UNDRIP, including the requirement of FPIC from Indigenous peoples (i.e., the MS-WTFNs, and any other potentially impacted Rights-holding First Nations) for the storage or disposal of hazardous waste within their territories. It is the expectation of the MS-WTFNs that nuclear waste management activities be informed and guided by *Canada's Policy for Radioactive Waste Management and Decommissioning* (Government of Canada, 2023), and our decision making-authority.

2.3.7 Alternatives for Excavated Material Management

Alternative means for the management of excavated materials considered for the NNW Project include:

- Management of the excavated material on the NNW site (such as utilization of excavated material for lake infilling, on-site berms, or on-site spoil retention piles).
- Transportation and disposal of the excavated material off-site to a non-OPG facility.
- Combination of the above alternatives.

Any excavated material management approaches must avoid any *kina ngadmawaad*, archaeological sites, and in particular our *Aanikoobigiganaanan* and ancestral burial site(s). Excavation material management approaches must avoid, and where not possible, reduce impacts to our cultural landscapes and to our Relatives. A co-developed policy to protect our *kina ngadmawaad*, and to ensure that our *Aanikoobigiganaanan* are not impacted, must be established

between the MS-WTFNs and OPG. Appropriate communication mechanisms must be established to ensure that we are promptly notified of any unintentional impacts to our *kina ngadmawaad*, so that they can be addressed in a manner which is aligned with our responsibilities, customs, and archaeological protocols. Constructor contractors and any other project personnel involved in ground disturbing activities must receive training in the identification of potential *kina ngadmawaad*, and archaeological and ancestral burial sites, including appropriate protocols and steps to be taken after a rediscovery is made.

Should the NNW Project proceed, all decisions regarding excavated material management approaches must include the MS-WTFNs and uphold our decision-making authority. Excavated material management approaches must avoid and protect any sites or landscapes of cultural or spiritual significance to our communities' and avoid needless impacts to our *kina ngadmawaad*, our cultural landscapes and our Relatives. We have the sole authority to identify or validate the identification of any areas that require protection and avoidance. A preliminary identification of aspects of our cultural landscapes, found within and surrounding the NNW site, are outlined within Figure 13.

2.3.8 Decommissioning Alternatives

OPG will assess the decommissioning strategy options outlined in CSA N294 (CSA Group, 2019) and REGDOC 2.11.2 Decommissioning, including prompt and deferred decommissioning, will be conducted in collaboration with the MS-WTFNs. A 30-year deferred decommissioning strategy has been identified by OPG to represent, for the purposes of the IA, a conservative assumption for decommissioning timelines. As the NNW Project advances, OPG will develop a Preliminary Decommissioning Plan (PDP), in collaboration with Rights-holding First Nations and interested Indigenous communities which will identify the decommissioning strategy and outline the plan of activities to execute the decommissioning activities. In assessing alternatives, OPG will be guided by Section 3 of *Canada's Policy for Radioactive Waste Management and Decommissioning* (Government of Canada, 2023), as well as the perspectives of Rights-holding First Nations and interested Indigenous communities.

Decisions regarding decommissioning cannot be left for future generations to solve; This is not consistent with our values, laws, or responsibilities to our Relatives and future generations. The IA must fully address decommissioning and any decisions regarding decommissioning must conform to Article 29(2) of UNDRIP and uphold our decision-making authority.

2.3.9 Summary of Alternative Means

A summary of the alternative means to carry out the NNW Project has been provided in Table 4. It details the description of the alternatives and the planned approach that will be undertaken.

Table 4: Alternative Means of Carrying out the NNW Project

Alternative Means Topic	Description	Planned Assessment Approach
<p>Reactor design (Section 2.3.1)</p>	<p>A specific reactor technology has yet to be chosen for the NNW Project and site licensing will follow a PPE approach. Examples of reactor technologies which have been considered as part of OPG’s PPE include:</p> <ul style="list-style-type: none"> • PWR - Westinghouse’s AP1000 and EDF’s Evolutionary Pressurized Reactor • PHWR – 850 MW to 1050 MW CANDU such as Atkins Realis’ CANDU MONARK • BWR - GE-Hitachi’s BWRX-300 <p>These are not reactor technologies which have been chosen for the NNW Project but are representative examples that the PPE encompasses.</p>	<p>A conceptual design that is representative of the design features of the range of technology options will be encompassed in the PPE. The design will include the most conservative (worse case) parameters to evaluate real and potential impacts.</p> <p>We require that any planned approach avoid or reduce needless and unjustifiable real and potential adverse impacts and effects to our place and to our Relatives, as well as uphold our Rights and decision-making authority.</p>
<p>Circulating cooling water (Section 2.3.2)</p>	<p>Several circulating cooling water technologies for the NNW Project are being considered including:</p> <ul style="list-style-type: none"> • once through cooling • natural draft cooling towers • mechanical draft cooling towers • mechanical draft cooling towers with plume abatement technology 	<p>Circulating cooling water alternatives will be carried forward into the assessment.</p> <p>We require that any circulating cooling water alternatives avoid or reduce needless and unjustifiable real and potential adverse impacts and effects to our cultural landscapes and to our Relatives, as well as uphold our Rights and decision-making authority.</p>
<p>Alternative Site Layouts (Section 2.3.3)</p>	<p>Constraints and alternatives for placement of infrastructure on the NNW site will be identified. Alternative locations on the NNW Project site that can accommodate the various structures, and equipment will be identified. This may include consideration of alternatives for construction and crossing methods for waterbodies, watercourses, wetlands and other</p>	<p>Infrastructure siting constraints will be considered with the intent to minimize impacts of the Project, while balancing technological constraints. Alternatives will consider feedback from engagement with First Nation and Indigenous communities, the local community and other stakeholders.</p> <p>We require that any alternative site layouts avoid needless and</p>

Alternative Means Topic	Description	Planned Assessment Approach
	obstacles that relate to siting (see Section 2.3.4).	unjustifiable real and potential adverse impacts or effects to our Relatives, to our cultural landscapes, or to areas of cultural and spiritual significance, as well as uphold our Rights and decision-making authority.
Alternative methods for Site Preparation and Construction Approaches (Section 2.3.4)	Alternative means of completing specific site preparation and construction activities will be identified.	Preferred methods for site preparation and construction approaches will be carried forward into the assessment. Constraints will be considered with the intent to minimize impacts of the Project, while balancing project cost and technological constraints. We require that any alternative methods for site preparation and construction approaches avoid needless and unjustifiable real and potential adverse impacts and effects to our relatives, to our cultural landscapes or to areas of cultural or spiritual significance, as well as uphold our Rights and decision-making authority.
L&ILW ⁵⁰ (Section 2.3.5)	Short- (interim storage) and long-term (disposal) waste management alternatives and storage options are being considered including alternative on-site and off-site options.	Waste management alternatives will be carried forward into the assessment. We require that any nuclear waste management alternatives uphold Article 29(2) of UNDRIP, as well as our Rights and decision-making authority.
HLW (Section 2.3.6)	Alternatives being considered include interim storage and long-term management of the HLW. This includes transferring HLW into fuel-specific dry storage containers	Waste management alternatives will be carried forward into the assessment.

⁵⁰ OPG's nuclear waste can be divided into three categories: LLW includes worker garments and gloves, small tools and system parts including pumps and materials used in the stations such as plastic, paper, and wood. More than 98% of the nuclear waste in Canada is LLW. ILW includes reactor components, resins, and filters used to keep water systems clean.

Alternative Means Topic	Description	Planned Assessment Approach
	<p>which will either be stored on-site in a new, purpose-built facility or transferred to a disposal facility operated by the NWMO or another appropriately licensed facility.</p>	<p>We require that any nuclear waste management alternatives uphold Article 29(2) of UNDRIP, as well as our Rights and decision-making authority.</p>
<p>Excavated material (Section 2.3.7)</p>	<p>Alternative use of the excavated materials includes management of the excavated material on the NNW site, transportation, use, and/or disposal of the excavated material off-site, lake in-filling or on-site berms, or a combination of these approaches.</p>	<p>The alternative excavated material uses will be carried forward into the assessment.</p> <p>We require that any alternative excavation material management approaches avoid needless and unjustifiable adverse impacts and effects to our place, to our Relatives, to our cultural landscapes or to areas of cultural or spiritual significance, as well as uphold our Rights and decision-making authority.</p>
<p>Decommissioning (Section 2.3.8)</p>	<p>Decommissioning alternatives will be considered, including prompt and deferred decommissioning, as outlined in CSA N294 and REGDOC 2.11.2.</p>	<p>Decommissioning alternatives will be carried forward into the assessment. Decommissioning plans will also be reviewed in later CNSC licensing processes.</p> <p>We require that decommissioning alternatives uphold Article 29(2) of UNDRIP, as well as our Rights and decision-making authority. Restoration of the site must be determined in collaboration with the MS-WTFNs.</p>

2.4 Project Production Capacity and Processes

Nuclear power generation utilizes nuclear fission reactions that occur within a reactor core to produce heat. This heat is then used to turn water into steam which drives a turbine that is connected to a generator, producing electricity. After passing through the turbine, the steam is condensed back into water and recirculated to repeat the process. The circulating cooling water is handled through one of the alternative systems explained in Section 2.3.2. This circulating (external) cooling water does not mix with the recirculating (internal) water that is turned to steam to drive the turbine. Safety systems, including control rods that regulate the fission

process and containment structures, ensure the reactor operates safely. The process is shown in Figure 3 with the typical nuclear power generating station components shown in Figure 4.

The NNW Project will generate up to a total of approximately 10,000 MWe which equates to an equivalent of approximately 30,000 MWth. Several reactor designs and associated equipment for the NNW Project are being considered through the PPE approach.

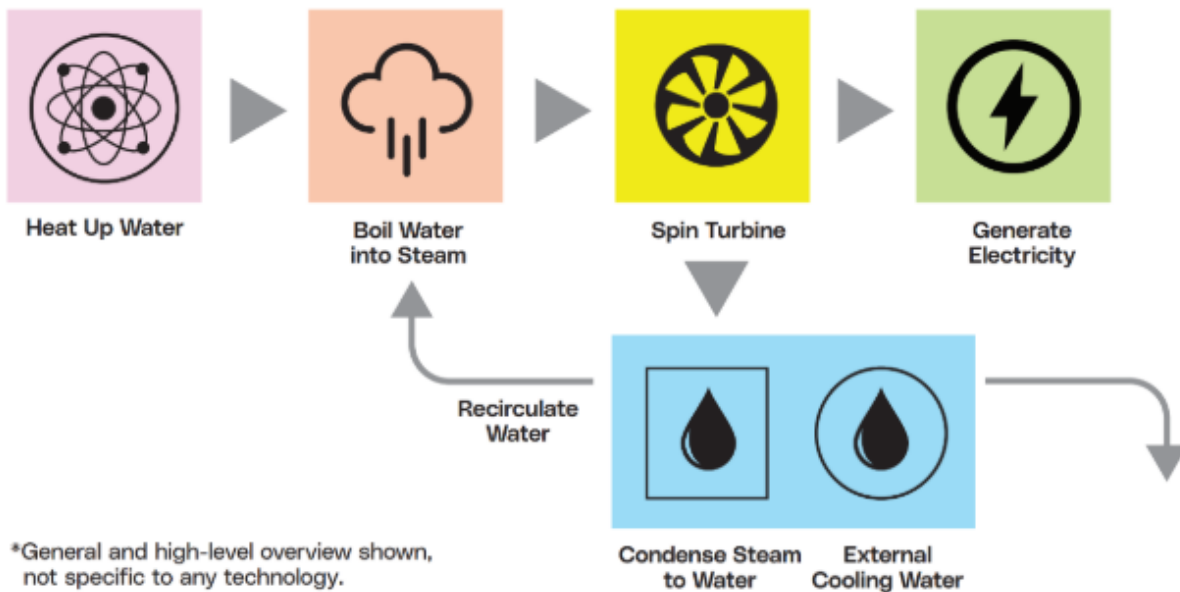


Figure 3: How a Nuclear Power Plant Works

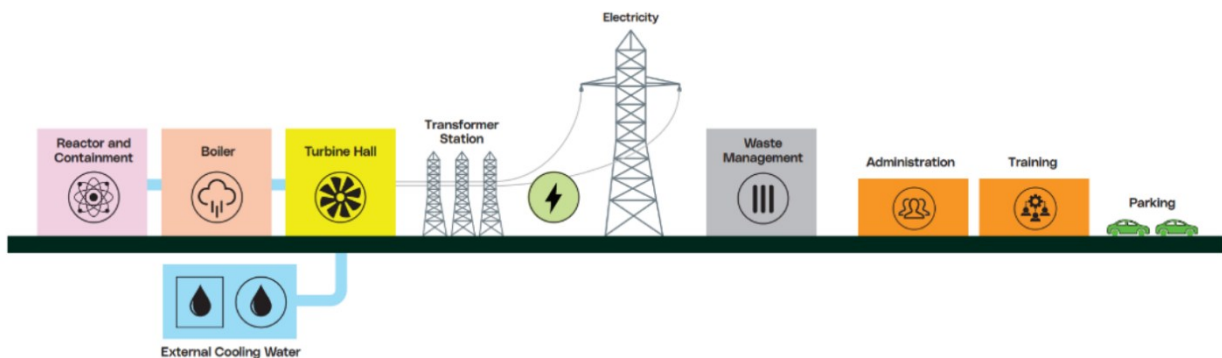


Figure 4: Typical Nuclear Power Generating Station Components

2.5 Preliminary Project Schedule

The preliminary project timeline as expected at the time of submission of the IPD is provided in Table 5. These timelines are subject to change as the project advances. The NNW Project will require the acquisition of several licences including the LTPS, Licence to Construct (LTC) and Licence to Operate (LTO). The specific timing for these will vary based on the expected timing to construct and operate the reactors. Under the IA process, the LTPS Application will be included with the Impact Statement submission.

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 Table 5, in addition to the estimated phase durations for one individual unit. Once all reactors have been successfully shutdown, the facility will enter the decommissioning phase. At this time, OPG does not anticipate that there will be an expansion of the NNW Project.

Table 5: Preliminary Project Timeline

Project Phase	Estimated Start for First Unit	Estimated Finish for Last Unit	Estimated Phase Duration for All Units (Years)	Estimated Phase Duration for One Unit (Years)
Site Preparation	2030	2037	7	3 ⁵¹
Construction	2033	2048	15	7
Operation and Maintenance	2040	2118	78	70
Decommissioning	2118	2148	30	Not Applicable
Site Closure and Release from Regulatory Control	2148 and beyond		Not Applicable	

⁵¹ Site preparation for the NNW Project is site based and not unit based, and the duration refers to the estimated time to prepare the east and west sides of the NNW site.

2.6 Activities, Infrastructure, and Physical Works

The NNW Project will include the site preparation and construction of several nuclear reactor units, totalling up to approximately 10,000 MWe. Each unit will include project infrastructure, including a reactor building (powerhouse) generating thermal energy, connected with a turbine to make electrical power, shared to the provincial electrical grid through the transmission system. A circulating cooling water option will be used separate from the radioactivity generating components to remove heat. The NNW Project may include other infrastructure such as waste management buildings, administration and training buildings, security and other supporting utilities including water treatment.

Sections 2.6.1 – 2.6.5 detail all the activities and infrastructure within the scope of the NNW Project. As the type, number of reactors, and the circulating cooling technology have not been established, a range of options based on the PPE are being considered. Project activities may be refined as the NNW Project progresses.

2.6.1 Site Preparation Phase

During the site preparation phase of the project, there are no nuclear substances expected to be in use. The activities, infrastructure, permanent or temporary structures and physical works expected to be undertaken during the site preparation phase include:

- management of site preparation workforce, payroll, and purchasing
- mobilization of site preparation workforce and equipment to site including supply of equipment, materials, and plant components
- use of site preparation workforce and heavy equipment for site preparation
- clearing and grubbing of vegetation
- grading, contouring, and excavation of the site comprising of earth and rock-handling activities including earthmoving and grading activities, bedrock excavation (including for nuclear structure foundations), blasting, dewatering, cutting, filling, and transportation of surplus earthen materials to an off-site non-OPG disposal facility and/or on-site retention creating berms and stockpiles
- development of marine and shoreline in-water works including potential lake infilling, shoreline protection and stabilization, construction of docks/wharfs, and lake-bottom dredging
- transportation of large components or bulk material via barge, train, and/or truck
- development of appropriate handling and disposal/retention strategies for excavated materials, including dust and noise management plans, erosion and sediment control, stormwater management and on-site soil handling practices
- management of stormwater

- management of non-radioactive waste; including construction waste, non-radioactive hazardous materials, fuels, and lubricants
- installation of temporary and/or permanent services and utilities; including electrical services, potable water, sanitary sewage collection infrastructure, telephone service, and public address system
- sanitary sewage collection via either sewage treatment on-site or connection by municipal services
- development of water treatment plant
- drilling and installation of support pilings or shoring to maintain excavations and/or roads (excludes any pilings that would support nuclear structures)
- development of temporary and/or permanent site access infrastructure including railway access, highway and road access, and/or in-water docks/wharfs to support transportation of major components
- construction of new fuel storage area
- installation of temporary and permanent fencing
- development of construction laydown areas
- development of dedicated on-site concrete batch plant
- development of interfacing switchyard from generating station to Hydro One Networks Inc. (the electrical grid)
- development of administration and physical support facilities including parking areas, security guardhouses, site perimeter fencing, storage and perimeter security buildings, offices, workshops, and maintenance and utilities operating centres
- construction of circulating cooling system infrastructure (dependent on choice of cooling technology) including cooling towers or once through cooling system with all associated submerged intake and discharge structures.

2.6.2 Construction Phase

The activities, infrastructure, permanent and temporary structures and physical works expected to be undertaken during the construction phase include:

- management of construction workforce, payroll, and purchasing
- mobilization of construction workforce and equipment to site including supply of construction equipment, materials, and plant components
- use of construction workforce and heavy equipment for construction
- management and training of operational labour force to support commissioning
- management of stormwater
- management of non-radioactive waste; including construction waste, non-radioactive hazardous materials, fuels, and lubricants
- sanitary sewage collection via either sewage treatment on-site or connection by municipal services

- construction of power block including:
 - reactor buildings including the reactor vessel, fuel handling systems, primary and secondary heat transport components and systems, moderator (not applicable to all PPE reactors), reactivity control mechanisms, shut down systems and containment
 - turbine generator powerhouse including the turbines, generators, and related systems and structure
- installation of auxiliary plant operating components including pumps, turbines, and electrical power systems
- commissioning testing of systems and components; including both nuclear and non-nuclear components (prior to fuelling)
- construction of buildings and facilities for interim storage of used fuel
- construction of buildings and facilities for the management of L&ILW
- construction of a Tritium Removal Facility (TRF) (not applicable to all PPE reactors)
- continuation of any activities, infrastructure, and physical works described in the site preparation phase.

2.6.3 *Operation and Maintenance Phase*

The activities, infrastructure, permanent and temporary structures and physical works expected to be undertaken during the operation and maintenance phase include:

2.6.3.1 *Power Generation Operations*

- management of operational labour force
- commissioning testing of systems and components including both nuclear and non-nuclear components
- on-site management of new fuel including fuel receiving, inspection, storing, staging, safeguards, etc.
- operation of the reactor core
- operation of the heat transport systems
- operation of the moderator system (not applicable to all PPE reactors)
- operation of the active and inactive ventilation
- operation of the safety and related systems
- operation of the fuel handling systems and irradiated fuel bays (IFB)
- operation of the turbine generator
- operation of the radioactive and inactive liquid waste management systems
- operation of TRF (not applicable to all PPE reactors)
- management of operational LLW and ILW
- potential transportation of operational LLW and ILW to a licensed off-site facility
- management of irradiated fuel in IFBs/Dry Storage Containers

- management of conventional waste
- operation of site services and utilities including domestic water, sewage system, stormwater management, compressed air systems, heating and ventilation, on-site transportation, chemical usage and storage, and other auxiliary systems
- operation of the on-site water systems including condenser cooling water, service water, and cooling systems
- operation of the on-site electrical power systems
- operation and maintenance of emergency and standby power generation
- maintenance of components and systems; including upgrades and modifications to manage the facility as it continues to operate
- refurbishment and major maintenance of facility systems, structures, and components to support the operational lifetime of the facility.

2.6.3.2 *Safe Storage Operations*

- transition from operations to a permanent shutdown state
- transition from a permanent shutdown state to a stable state for decommissioning, including defueling the reactor, draining and storing cooling water from the reactor main systems, draining water from secondary and auxiliary cooling systems, cleaning and decontaminating, and modifying the operating conditions/programs to align with the state of the facility
- maintenance of cooling for the irradiated fuel bays
- performance of routine inspections and carrying out of preventative and corrective maintenance and surveillance activities
- carrying out of radiological survey programs
- carrying out of environmental surveillance programs
- carrying out of waste management activities, including the handling, storage, transportation, and disposal of radioactive and non-radioactive waste
- transfer of spent fuel to dry storage and eventual transfer to a long-term management facility
- preparation of site for dismantling and demolition, including the development of dismantling plans, decontamination as needed, and the acquisition of dismantling resources such as personnel, equipment, etc. (prompt decommissioning⁵² only)
- decontamination and dismantling of structures, systems, and components in accordance with the decommissioning plan, ensuring that all materials are safely managed (prompt decommissioning only).

⁵² Prompt decommissioning refers to decontamination, dismantling and/or clean up without any planned delays. Deferred decommissioning involves placing the facility in a period of storage with surveillance (Safe Storage) before eventual decontamination, dismantling, and/or clean-up. This may include interim activities to establish a safe and secure state before storage and final decommissioning.

2.6.4 *Decommissioning Phase*

The activities, infrastructure, permanent or temporary structures and physical works expected to be undertaken during the decommissioning phase are listed below:

- maintenance of cooling for the irradiated fuel bays until all spent fuel is transferred to dry storage
- performing of routine inspections, carrying out of preventative and corrective maintenance, and surveillance activities
- carrying out of radiological survey programs
- carrying out of environmental surveillance program
- carrying out of waste management activities, including the handling, storage, transportation, and disposal of radioactive and non-radioactive waste
- preparation of site for dismantling and demolition, including the development of dismantling plans, decontamination as needed, and the acquisition of dismantling resources such as personnel, heavy equipment, etc.
- decontamination and dismantling of structures, systems, and components in accordance with the decommissioning plan, ensuring that all materials are safely managed
- temporary structures may be erected to carry out the decontamination, dismantling, and demolition activities required to decommission the facility.

2.6.5 *Site Closure and Release from Regulatory Control*

The activities expected to be undertaken to release the NNW Project from regulatory control are listed below:

- performance of extensive radiological surveys to assess contamination levels and ensure that radiation exposure is within acceptable limits
- conduct a final status survey to confirm that the site meets the criteria for release from regulatory control, including radiological and non-radiological criteria
- submit application to the CNSC to release the site from regulatory control
- obtain final approval from the CNSC for the release of the facility from regulatory control, based on the successful completion of all decommissioning activities and compliance with safety and environmental standards.

3. Part C – Location Information

The proposed NNW Project’s location including the proximity to affected communities, lands used for traditional purposes by Indigenous peoples of Canada⁵³, and federal lands is provided below. Additionally, a description of the physical and biological environments and the health, social, cultural, and economic contexts of the area have been included drawing on publicly available sources.

We have contributed aspects of our ways of knowing and being, which are based on intergenerational experiences, memories, stories, and Knowledge, into this document, in good faith. Our contributions are intended to underscore the importance of the NNW site, and the surrounding area, to our identity, culture, values, Rights, and wellbeing. They are intended to ensure our perspectives, concerns, and real and potential adverse impacts and effects of the NNW Project on our communities, are captured early on in the IA process.

We wish to acknowledge the Lands, Waters and all Relatives, which have provided gifts, instructions, and Knowledge, that have informed our contributions to this IPD. We wish to acknowledge that many of our Relatives are already being adversely impacted at the NNW site through preliminary studies and early assessment activities related to the NNW Project.

3.1 Proposed Location

The NNW Project is proposed on Lands and Waters which are part of our homelands and Treaty Territories. The NNW site is located along the north shore of *Gchi Nibi*, where our people lived, gathered, maintained fisheries, harvested food and medicines, buried and cared for our

⁵³ The MS-WTFNs acknowledge that within the *Guide to Preparing an Initial Project Description and a Detailed Project Description*, the Agency requires a description of the project’s proximity to ‘land used for traditional purposes by Indigenous Peoples of Canada’. While we appreciate the intention of such a description, this phrase does not accurately reflect the lived reality of our people or our ways of knowing and being. We do not consider land as something to be ‘used’, nor do we consider it filled with ‘resources’. These western terms connote parts of creation as separate, inanimate, objects that are other than the user. However, we understand and relate to *Shkakimikwe*, and all aspects of Creation (*Aki, Siniig, Nodin, Nibi*, Animals, Plants, Little Spirits, *Aanikoobigiganaanan*, Spirits, etc.) as Beings, in a spiritual, relational, and familial way – as our Relatives. As *Michi Saagiig Anishinaabeg*, we have agreed to carry out certain responsibilities and laws among our Relatives. Our Relatives are our helpers and offer us gifts, teachings, and instructions. We have an obligation to ensure the health and integrity of our Relatives, for generations to come, as we have done since *me’wzha*. Respectfully, our communities are not ‘of’ Canada. As *Michi Saagiig Anishinaabeg* Nations, we are not owned or possessed by any entity. We pre-existed the creation and formation of Canada, whose jurisdiction and sovereignty is imposed over our pre-existing sovereignty and Inherent Rights. As such, we have chosen a different title for this section which is meant to meet the requirements of the IMTLR, while utilizing different language to better reflect our values, knowledge, and lived experiences.

Aanikoobigiganaanan, and practiced our spirituality. The Lands and Waters within the NNW site are inhabited and relied upon by our Plant, Animal, Little Spirit,⁵⁴ and other Relatives.

This area has provided, and continues to provide, place and belonging – a cultural landscape – to our people, as well as to our human and non-human Being Relatives. Relatives are integral to our cultural and spiritual fabric and identity. There are several places of relational, spiritual, cultural, and economic importance to our communities within or near the NNW site, including, but not limited to:

- *Gchi Nibi*, and its northern shoreline
- the tributaries of *Gchi Nibi*, and their mouths and shorelines
- a remnant *mishkode* (cultivated grassland prairie)
- a coastal wetland
- Chrysler and Oily point
- the shoreline of Glacial Lake Iroquois
- several recorded and documented archaeological sites, including a village, potential ancestral burial sites, ancestral remains or artifacts
- a potential Culturally Modified Tree (CMT)

The NNW site lies within our broader annual and seasonal travel and harvesting routes. These routes connect our wintering ground inner lakes (e.g. Scugog, Balsam, Chemong, Pigeon, and Rice Lakes), to our summering grounds along *Gchi Nibi* and its tributaries.

Our communities have continuously been denied free access to the NNW site, and much of the adjacent Lands, for hundreds of years, through the imposition of Crown jurisdiction and the taking up of Lands and shorelines into private ownership. This occurred despite the Crown's Treaty promises to the contrary. Yet, our people continue to maintain deep spiritual connections and familial relationships to the Lands, Waters and all Relatives in the area, as we have since *me'wzha*.

The Lands where the NNW site is located are covered by pre-Confederation Gunshot Treaties which were entered into between our *Aanikoobigiganaanan* and the Crown. These Lands are also covered by the Williams Treaties of 1923 and the Williams Treaties First Nations Settlement Agreement of 2018, which were signed by the WTFNs, Canada, and Ontario.

⁵⁴ We have knowledge and experience of, and relate to and learn from our Little Spirit Relatives, which include the equivalent of the western category of 'insect', but is also inclusive of other Relatives which care for the waters, the soil and help vegetation growth.

The property boundary consists of an irregularly shaped parcel of land displayed in Figure 6, and includes a section within *Gchi Nibi*, which is part of the unceded Waters and Lakebeds of the MS-WTFNs.

The NNW site has an area of approximately 540 ha and is located immediately south of the Canadian National (CN) and Canadian Pacific (CP) railway tracks, and immediately west of Wesleyville Road, in the Municipality of Port Hope. OPG site ownership also includes property north of Lakeshore Road and approximately 8 ha of a water lot in Lake Ontario (included within the 540 ha). The on-land part of the site is located in a rural area with primarily agricultural and some residential uses. The eastern portion of the site was originally intended to be developed in the 1970s for an oil powered thermal generating station. Construction activities were initiated (including clearing of the site, grading and construction of numerous structures) before the project was halted. Some structures remain including a powerhouse and chimney stack and much of the cleared area has been maintained clear to present (see Figure 5). The western portion has historically been used for agricultural uses. A wetland lies between the east and west portions which is described further in Section 3.4.1.2.11. OPG's NNW site has maintained Gold Certification by the Wildlife Habitat Council for the last 4 years.



Figure 5: Existing Wesleyville Powerhouse and Chimney Stack

The southeast portion of the site currently houses the OPG Wesleyville fire and rescue training facility as well as other buildings that are used by external fire and emergency departments including but not limited to Clarington Fire and Pickering Fire Departments. OPG leases buildings to companies such as steel fabricator Bromley Fabrications. The Royal Canadian Mounted Police and Ministry of Children Community & Social Services also use the powerhouse for training activities.

The northwest portion of the site includes an abandoned house/barn (2128 Lakeshore Road) and a historically significant schoolhouse (2028 Lakeshore Road). Agricultural fields in the northeast and southwest portions of the site are currently leased to individual farmers. The remainder of the site is comprised of undeveloped wooded areas, a creek with an inlet in the south-central portion of the site, as well as a provincially significant wetland complex roughly in the center of the site (see Section 3.4.1.2.11).

Based on the memories and stories of our people, and supported by the Euro-Canadian historic record, the first European settlers who established Hope township in the late 18th century arrived and built homesteads along the shore of *Gchi Nibi*, within, what is today, the NNW site. Many of these settlers documented the presence of our people at a seasonal village, recorded by some as *Pametashwetiang*,⁵⁵ located along the shores of the Ganaraska River, in what is now known as Port Hope. We also gathered in smaller encampments along the north shore of *Gchi Nibi*, including the Lands where the NNW Project is proposed. Our memories, stories, oral history, as well as archival and archaeological evidence, attest to the presence of our people within these Lands and Waters.

⁵⁵ While we have always understood our place based on our landscape, our villages were often understood by settlers as named for the place a portage route connected to. Names for this village, as understood by settlers, are recorded in several slightly differing ways on various maps and within various accounts. These include *Pamadusgodayong*, *Pemetashwetiong* Landing, and *Pamegahwaysing*. In this case, our village, was likely understood, and so named, in relation to *Pemaadeshkodeyong* (Rice Lake), as its location, near the Ganaraska River, served as a terminus of the Rice Lake or Ganaraska Carrying Place or Portage.

3.1.1 *Geographic Coordinates*

A description of the proposed location and site boundaries is provided in Section 3.2. As noted above, the existing site is located immediately west of Wesleyville Road, in Port Hope, Ontario and includes a water lot over Lake Ontario. Coordinates for the access points to the NNW site is provided below:

UTM:	708317.0862, 4866813.511
GCS:	43.924973, -78.404994

3.1.2 *Site Map*

Figure 6 presents the NNW 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.

A preliminary identification of aspects of our cultural landscapes found within and surrounding the NNW site are outlined within Figure 13.

3.2 Legal Description of the Land

The property is located at 2655 Lakeshore Road, Port Hope, Ontario, L1A 3V7, identified by land parcels shown in Figure 6. OPG is the fee simple owner (lands and buildings), holding the real property title documents outlined in Annex B. Land Ownership Descriptions. Access is via Wesleyville Road, and utilities are managed on-site. It encompasses approximately 540 ha including a water lot in Lake Ontario. Adjacent properties include residential areas (zoned agricultural) that are located to the east and west of the property. The property north of the railway is owned by Hydro One and north of that property is under Cameco Ownership (See Figure 6).

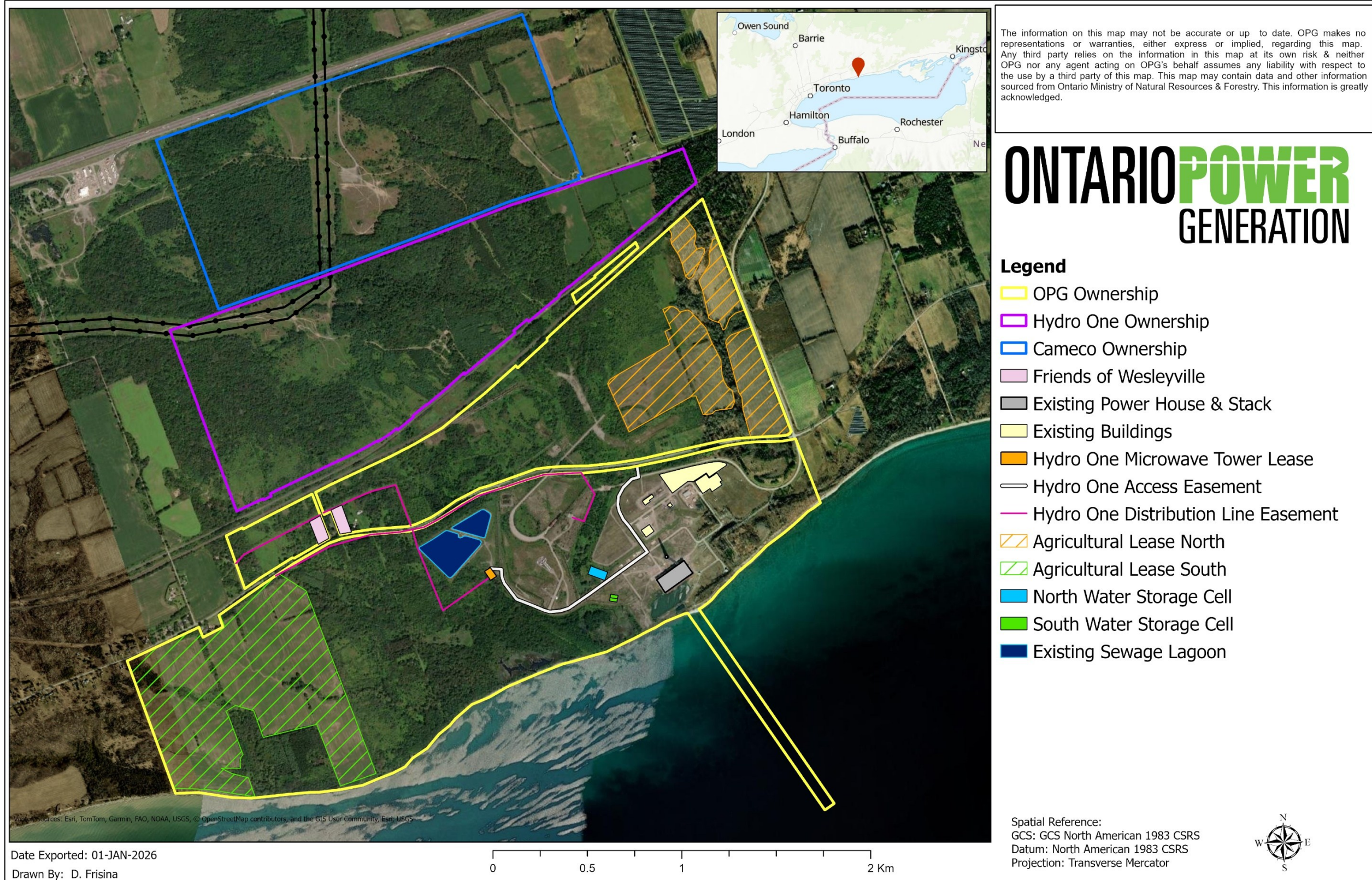


Figure 6: NNW Site Boundaries and Existing Infrastructure

3.3 Project Proximities

The following section summarizes currently available information related to NNW Project proximity to real and potentially impacted Rights-holding First Nations and interested Indigenous communities, and lands used for traditional purposes by Indigenous peoples of Canada, including reserve lands, and federal lands.

The NNW Project is located in the homelands of the MS-WTFNs, in what is now known as the Municipality of Port Hope in a sparsely populated, agricultural setting on lands covered by pre-Confederation Gunshot Treaties, including the Johnson-Butler Purchases as well as Clause 2 of the Williams Treaties of 1923. These lands are also covered by the Williams Treaties First Nations Settlement Agreement of 2018.

3.3.1 Potentially Affected Municipalities

Municipalities including larger towns and cities in proximity to the NNW site are identified in Table 6.

Table 6: Proximity to Communities

Upper Tier Municipality	Nearby Lower or Single Tier Municipalities	Population ⁵⁶	Proximity
Northumberland County	Port Hope (Municipality)	17,291	6 km East ⁵⁷
	Cobourg (Town)	20,519	17 km East
	Hamilton (Township)	11,059	23 km East
Regional Municipality of Durham	Clarington (Municipality)	101,427	19 km West
	Oshawa (City)	174,010	43 km West
County of Peterborough	Peterborough (City)	81,600	51 km North
City of Kawartha Lakes	Lindsay (Town)	22,367	54 km North

In addition to the communities identified in Table 6, the NNW site is also in proximity to permanent and seasonal residences. West and north-west of the NNW site there are residences along Lakeshore Road, including adjacent to the NNW site (see Figure 6). There are also several residences in Port Granby (5 km west) and Port Britain (4 km east) with the closest east of the NNW site on Lakeshore Road (near Wesleyville Road/Chalice Line and Lakeshore Road intersection). Wesleyville Village, a heritage village under restoration by the Friends of

⁵⁶ Populations have been taken from 2021 census data (Statistics Canada, 2024) (Statistics Canada, 2023c), See Section 3.5.2 for a map of the regional municipal boundaries including Northumberland County

⁵⁷ Port Hope is the host Municipality with the urban centre located east of the NNW site.

Wesleyville Village organization is also situated near the NNW site, north of the site on Lakeshore Road.

3.3.2 *Lands Used for Traditional Purposes by Indigenous Peoples of Canada / The Lands, Waters and All Relatives which Support Indigenous Peoples' Ways of Life in Canada*

Our direct relationships with our Relatives who live within and visit the NNW site, and surrounding areas, has been disrupted for hundreds of years. This disruption has occurred through impacts associated with colonization, the imposition of Crown jurisdiction, and the illegal taking up of the Lands and shorelines into private ownership. The Lands within, and surrounding the NNW site, remain inaccessible to our members, not by choice, but because of this imposition, despite Treaty promises to the contrary. Our communities can no longer freely live, visit, gather, harvest, care for Relatives, or practice ceremony, directly within these Lands and Waters.

Despite the Crown's impositions, and our lack of ability to freely access the NNW site and surrounding area, our connections, relationships, and responsibilities to these Lands, Waters and all Relatives have not ceased to exist; Our connections, relationships, and responsibilities continue, despite our inability to be physically present on the landscape. Our connections, relationships, and responsibilities to the Lands, Waters and all Relatives are not dependent upon our exercise of specific activities, such as harvesting. These relationships, and the centrality of the cultural landscapes within, and surrounding the NNW site, will exist in perpetuity. We look forward to returning to freely accessing the NNW site and surrounding areas, as we once did since *me'wzha*.

As described below, all Lands, Waters and all Relatives within our homelands and Treaty Territories are integral to our ways of life and therefore support our 'traditional purposes' as well as our current and future ways of life. Our Relatives inform, guide, and instruct us in our values, laws, Rights, language, culture, and spirituality (what western frameworks understand as land and water used for traditional purposes by Indigenous peoples of Canada).⁵⁸

3.3.2.1 Perspectives of the MS-WTFNs on the Lands, Waters and all Relatives

The NNW site includes the shore of *Gchi Nibi*, several of its tributaries and their mouths, including Wesleyville Creek, as well as a coastal wetland. Ultimately, the health of the Waters, and of all Relatives that rely on the Waters, remains an important responsibility of the MS-

⁵⁸ See footnote 53.

WTFNs; The Waters are central to the health and wellbeing of *Shkakimikwe* and to all human and non-human Beings (our Relatives).

Gchi Nibi, and its tributaries, have supported our Fish, Animal, Plant, and Little Spirit Relatives, since *me 'wzha*. The Waters remain central to our identity, our spiritual and cultural responsibilities, our ways of knowing and being, our practices, activities, and our food and medicine sovereignty. The Waters, and our Plant, Animal, and Little Spirit Relatives, who rely on the Waters, hold relational, spiritual, economic and cultural value to our people.

As shared by *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban),

*The Michi Saagiig are known as 'the people of the big river mouths' and were also known as the 'Salmon People' who occupied and fished the north shore of Lake Ontario where the various tributaries emptied into the lake.*⁵⁹

As shared by Eliza Braden-Taylor, Cultural Interpreter from CLFN, the very language spoken by CLFN members reflects the character of the Waters and ecosystems nearby. CLFN's dialect of *Anishinaabemowin* is referred to as 'a gentle language that sparkles'. CLFN dialect is soft, gentle and 'sparkly', because that is the way the Waters are within our homelands.

Our Mother, the Earth, includes the NNW site, and she provides place and belonging for our people and all our human and non-human Being Relatives. Our Relatives share with us, and with each other, gifts, stories, and instructions. *Siniig* Relatives⁶⁰, are part of what makes up *Aki*⁶¹, and are important for everyday use, and practical uses, such as for pottery, cooking, and artisanship. Our *Mishoomisag*⁶² – rocks, stones and minerals – are used in ceremony and are considered by our people to be Grandfathers, who hold the memories of the earth. They are important for burials. Impacts to *Shkakimikwe*, who we are responsible to care for, as well as impacts to our *Siniig* Relatives, represent impacts to our ways of life and our Rights.⁶³

Gchi Nibi, and the mouths of the creeks and rivers that flow into it, as well as the coastal wetlands, are places where *manoomin* (wild rice) grows. *Manoomin* is sacred to our people and

⁵⁹ *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban authored *Michi Saagiig Anishinaabeg Background-Historical Context* in 2017, which was provided by CLFN for the purposes of preparing MS-WTFNs contributions to this IPD.

⁶⁰ Throughout this document we have chosen to include the *Anishinaabemowin* word '*siniig*', which loosely corresponds with the western term 'rocks' or 'stones'.

⁶¹ Throughout this document we have chosen to include the *Anishinaabemowin* word '*Aki*' which loosely translates as 'our foundation, which life relies upon', in English.

⁶² Throughout this document, we have chosen to include the *Anishinaabemowin* word '*Mishoomisag*', which can be loosely translated as 'Grandfathers', in English. In this context, we are referring to those *siniig* which provide for our ceremonies. They are thought to hold the memories of the Earth.

⁶³ This paragraph has been informed by Knowledge shared by Tracey Taylor, Cultural Administrator at CLFN, Donovan Taylor, Cultural Preservation Manager at CLFN, and Lois K. Taylor of CLFN.

is a cornerstone of our culture and spirituality; It is why we live here.⁶⁴ It is known that *manoomin* once grew all across the Great Lakes Basin (Cizek, 1993).

Chief Taynar Simpson of AFN stated,

We are the people of Rice Lake. We are the harvesters of Manoomin, as were my parents and grandparents, and their parents and grandparents. As Michi Saagiig Anishinaabeg, we will continue to engage in our relationship with Manoomin for generations to come. The importance of this sacred seed to our community is memorialized in our very LOGO.

The NNW site, and surrounding areas, are of regional significance to the MS-WTFNs. Indeed, several archaeological sites have been identified within the vicinity of the NNW site. It is anticipated that remnants of the post-glacial shoreline during the Younger Dryas episode, including the earliest *kina ngadmawaad*, may exist in the marine areas, adjacent to the present-day shoreline of *Gchi Nibi*, including within the NNW site. There is evidence of a potential *Michi Saagiig Anishinaabeg* ancestral burial site and additional seasonal gathering area, within the NNW site, which have not yet been fully ground truthed.

Our memories, stories, and intergenerational experiences, tell us that our *Aanikoobigiganaanan* would settle in the area of the NNW site, on a seasonal basis, as part of our larger familial migratory routes between our wintering and summering grounds. We would gather in this area in the spring and fall for the salmon run, to cultivate and harvest *manoomin*, and to care for and harvest our Plants and Animal Relatives within our *mishkode*, and to visit the points (Oily and Crysler) to care for our *Aanikoobigiganaanan*, hold ceremony, and engage in gathering and sharing Knowledge, as well as social, cultural, and economic exchange.

Indeed, at the time of European arrival to our homelands, most of the shore of *Gchi Nibi* was occupied by Indigenous peoples and was comprised of continuous Indigenous fisheries (Telford, 2000). Several settler accounts recorded the presence of our people in the present-day Port Hope area, along the Ganaraska River, and along the north shore of *Gchi Nibi*. For example, in 1901, local historian W. Arnot Craick recorded,

On June 7, 1793, there were more than 50 native families encamped at Pemetescoutiang⁶⁵ [a village near the foot of the Ganaraska] for the fishing. Native

⁶⁴ Knowledge provided by Tracey Taylor, Cultural Administrator at CLFN, informed this paragraph.

⁶⁵ Often our villages were located at terminus points of our portage routes. While we have always understood our place based on our landscape, our villages were often understood by settlers as named for the place a portage route connected to. In this case, the village understood as *Pametescoutiang* was located at the terminus of the Rice Lake or Ganaraska Carrying Place or Portage, which connected Lake Ontario with Rice Lake. It is likely that *Pametescoutiang* refers to our description of Rice Lake.

families had lived seasonally on the banks of the Ganaraska for hundreds of years (Craick, 1901).

The 1878 *Illustrated Historical Atlas of Northumberland, Hastings and Durham* records that in 1778 there was a village of wigwams near the foot of the Ganaraska River called ‘Cochingomink’⁶⁶ which approximately 200 *Michi Saagiig Anishinaabeg* inhabited. The Atlas goes on to record that

In March 1779, Walter Butler traversed the north shore of Lake Ontario, stopping at Ganaraska River and reporting that Mississaugas were fishing there. The Mississauga band at Chemong Lake used Chemong and Ganaraska Portages every year to travel to fish runs at the mouth of the Ganaraska River. According to [John] Collins (1792), the Mississaugas preferred to move between Lake Ontario and Rice Lake in July by way of the Ganaraska Portage rather than the trails at Trent River (Belden, H., & Co., 1878).

Settler Johnston Haskil shared his personal account of arriving at Port Hope in 1803,

We lived at Johnsbury, New York in 1800 and came to Smith’s Creek, Upper Canada in a sleigh, by way of Wolfe Island, Kingston and Belleville, where we spent the winter. We arrived at Smith’s Creek in 1803 where we found a few white families and many Indian wigwams (Haskil, J. as in Leetooze, 1997).

The centrality of these areas to our people is demonstrated through our pre-Confederation Gunshot Treaties, which were negotiated by our *Aanikoobiganaanan*, in part, to protect all of the shorelines of bodies of water, the mouths of all creeks and rivers, the wetlands, rice beds, islands, points, maple stands, and beaver houses within our homelands.

Despite our Treaties, and their promises, our people were pushed out of the area by European settlers and Loyalists throughout the 19th century and illegally denied access to our own lands. Our cultural landscapes, areas, and Relatives protected by Treaty have been largely destroyed, altered, or degraded over the past several hundred years. This occurred through inaction by the Crown to follow through on its obligations.

Our cultural landscapes, areas, and Relatives protected by Treaty have been largely rendered inaccessible to us by the taking up of the Lands (including shorelines, wetlands, islands, points etc.) into Crown and private ownership. In 1923, the Crown imposed a ‘Basket Clause’ within the Williams Treaties, without the consent of the MS-WTFNs. The ‘Basket Clause’ illegally

⁶⁶ Often our villages were located at terminus points of our portage routes. In this case, the closest English equivalent for *Cochingomink* is ‘carrying place’ or ‘portage’, and was the same village also known by many as *Pametescoutiang*. This village was located at the terminus of the Ganaraska or Rice Lake Carrying Place or Portage, and together the names are related to the landscapes which the portage connected.

denied our Rights to harvest, within the Williams Treaties Territories, including the NNW site and surrounding area, thereby truncating our economy, culture, spirituality and ways of life. Despite these challenges, our community members continue to harvest within *Gchi Nibi* and its tributaries, including along the Wesleyville Creek and within the accessible Lands surrounding the NNW site. There is evidence that our *Aanikoobigiganaanan* and *kina ngadmawaad*, continue to call the NNW site, and the surrounding area home, and should not be disturbed.

Despite the disruption to our ability to freely access the Lands and Waters within and near the NNW site, our communities continue to hold relationship with our Relatives in these areas and fully intend to restore the balance of those Relatives for future generations – *Chi weshjigaadeg nike gaazhnaagwaak mewzha*. One of our priorities will remain restoring balance to our homelands, with a focus on areas surrounding *Gchi Nibi*, its tributaries, and coastal wetlands. We remain open to working with OPG, Canada, and Ontario to restore this balance, consistent with our responsibilities and ways of knowing and being.

Our Relatives continue to live within and care for the Lands, Waters, sky, and natural areas surrounding the NNW site. Our Relatives, who support our cultural and spiritual practices, and who are often harvested for sustenance, craftsmanship, and economy, have declined significantly since the arrival of settlers, and in some cases, have become Territorially extinct or rare.⁶⁷ Our Relatives remain susceptible to the continued adverse cumulative impacts and effects of development, nuclear and otherwise. Our Relatives remain central to our ways of knowing and being, and their decline signals imbalance. Tracey Taylor, Cultural Administrator at CLFN, adds that,

The presence or absence of a species tells us about the health of the habitat and the lands. We do notice when species are gone, that we grew up with, and then we wonder, why the decline?

We hold an obligation and responsibility within our laws to restore balance to the Lands, Waters and all Relatives, including within and surrounding the NNW site.

The NNW Project is having, and will have, adverse impacts and effects to our Relatives which must be understood within the broader context of the existing and ongoing impacts and effects of development in the area. The cumulative impact of development within our homelands and Treaty Territories, which has been allowed through Crown decisions, continues to have great adverse impacts and effects on our immediate and long-term ability to maintain our cultural, spiritual, and economic activities, as well as our identity, well being, and ways of life.

⁶⁷ Examples of Relatives who have become Territorially extinct or rare include but are not limited to the Passenger Pigeon (extinct), the American Eel (not seen in our Territories since the 1980s), *manoomin* (no longer widely or sustainably available).

When decommissioned, our people will continue to live in spiritual, familial, and relational harmony with the Lands, Waters and all Relatives within, and near, the NNW site; We will continue to uphold our responsibilities and take care of *Shkakimikwe*, for generations to come; We will continue our ways of life, exercising our Rights to harvest and partake in cultural and spiritual activities, within the Lands and Waters at the NNW site. We must be consulted as part of the development of a decommissioning strategy to ensure that the Lands, Waters and all Relatives, are appropriately cared for and returned to balance, consistent with our responsibilities, teachings, ceremonies, and decision-making authority.

We assert that the IA for the NNW Project must include time and resources for the development of our equivalent of Valued Components (VCs) to support the IA. For example, MSIFN has noted that many of the VCs within the current planned studies have not considered our values. There is an opportunity to develop Indigenous-led VCs or a MS-WTFNs-led equivalent to VCs to ensure that our Rights and interests are adequately identified, understood, and accommodated. Engagement on our values is needed to finalize the spatial and temporal scales for studies related to the NNW Project. Inclusion of representatives, technicians, staff, and Knowledge holders from our communities, in OPG-led field surveys, is critical to ensuring that our Relatives are identified, protected and restored to help reduce the cumulative impacts of NNW Project. This will ensure that cumulative impacts and effects can be appropriately understood and assessed in a manner which is consistent with our Rights, interests, and worldviews.

Additional investigations and research are required to have a better understanding of the NNW site and surrounding area's place within our cultural, spiritual, economic, and political landscape. This includes, but is not limited to, an Indigenous Knowledge Study, especially as it pertains to paleoethnobotany, further archaeological and historical research, and cumulative effects assessment, as well as other MS-WTFNs-led studies which would support the gathering of more fulsome Knowledge, experiences, and memories that could properly inform the IA for the NNW Project. We intend to undertake a MS-WTFNs-led Impact Assessment that will move beyond the western scientific approach to VCs; it will ensure that real and potential adverse impacts and effects to VCs are appropriately contextualized and can be meaningfully protected and accommodated through the full lifecycle of the NNW Project.

Section 1.4.1 provides an overview of real and potentially impacted Rights-holding First Nations and interested Indigenous communities. Table 7 summarizes First Nation reserve lands and their relative distance to the NNW site.

Table 7: Proximity to First Nation Reserve Land

Land Type	Description of Land or Agreement	First Nations and Indigenous Communities	Approximate Direct Distance to NNW site
Project's proximity to land used for traditional purposes by Indigenous peoples of Canada, land in a reserve as defined in subsection 2(1) of the Indian Act, First Nation land as defined in subsection 2(1) of the First Nations Land Management Act, land that is subject to a comprehensive land claim agreement or a self-government agreement and any other land set aside for the use and benefit of Indigenous peoples of Canada	Curve Lake First Nation No. 35	Curve Lake First Nation	60 km north
	Curve Lake First Nation No. 35A	Curve Lake First Nation	60 km north
	Tyendinaga Mohawk Territory	Mohawks of the Bay of Quinte	100 km east
	Six Nations 40 and Glebe Farm 40B	Six Nations of the Grand River	160 km southwest
	Mississaugas of the Credit First Nation	Mississaugas of the Credit First Nation	170 km southwest
	Hiawatha First Nation 36	Hiawatha First Nation	30 km northeast
	Alderville First Nation	Alderville First Nation	35 km northeast
	Sugar Island Indian Reserve No. 37A	Alderville First Nation	40 km northeast
	Mississaugas of Scugog Island First Nation	Mississaugas of Scugog Island First Nation	45 km northwest
	Chippewas of Georgina Island First Nation No. 33A	Chippewas of Georgina Island First Nation	80 km northwest
	Chippewas of Georgina Island First Nation	Chippewas of Georgina Island First Nation	85 km northwest
	Chippewas of Rama First Nation	Chippewas of Rama First Nation	110 km northwest
	Christian Island No. 30	Beausoleil First Nation	170 km northwest
	Christian Island No. 30A	Beausoleil First Nation	170 km northwest
	Village Des Hurons Wendake Indian Reserve No. 7	Wendat Nation	640 km northeast
Village Des Hurons Wendake Indian Reserve No. 7a	Wendat Nation	640 km northeast	

3.3.3 Federal Lands

Federal facilities in proximity of the NNW site are provided in Table 8.

Table 8: Approximate Proximities from NNW site to Federal Lands

Federal Lands	Approximate Proximity
Pickering Lands ⁶⁸	55 km northwest
Canadian Forces Base Trenton	71 km east
Trent-Severn Waterway (at Sturgeon Lake)	60 km northwest

There are additional federal activities undertaken not on federal lands, both on and within the vicinity of the NNW site. On the NNW site, this includes police training facilities (Royal Canadian Mounted Police) and creek barriers/dam infrastructure (Fisheries and Oceans Canada (DFO)). On properties and buildings located within 2 km in the NNW site, this includes used and unused properties and buildings associated with the Port Hope Project site (Atomic Energy of Canada Limited), such as the Port Granby Waste Management Facility (Treasury Board of Canada Secretariat, 2024). OPG will monitor for changes in federal land ownership of federal lands as the NNW Project proceeds through the IA process.

3.3.3.1 Port Granby Nature Reserve

According to the Municipality of Clarington’s Fact Sheet on Port Granby Nature Reserve Proposal Fact Sheet, “The Port Granby Nature Reserve is a collaborative vision and strategy by the Municipality of Clarington, Municipality of Port Hope, GRCA, and the community. It is a proposal to the Government of Canada to transfer ownership of federally owned lands surplus to the Port Granby Project to local agencies for ecological restoration and preservation. The Port Granby Project is a federal government undertaking for the safe, long-term management of historic low-level radioactive waste situated in the Port Granby, Ontario area. This area is comprised of 270 hectares of federally owned land in the southeastern corner of Clarington and extends into the Municipality of Port Hope.” (Municipality of Clarington, 2015). OPG understands from the MS-WTFNs that the vision and strategy of the Port Granby Nature Reserve, includes elements of co-management by the MS-WTFNs, the local municipal governments, conservation authority and members of the local community.

⁶⁸ Land owned by the Government of Canada that was originally purchased to develop a new airport. On January 27, 2025, the Government of Canada announced that this land will not be used for a future airport site (Transport Canada, 2025).

The vision and strategy of the Port Granby Nature Reserve includes elements of co-management of the Lands, Waters and all Relatives between the MS-WTFNs, the local municipal governments, conservation authority, and members of the local community. The Port Granby Nature Reserve is an example of a meaningful step towards reconciliation and a demonstration of respect for the MS-WTFNs, our sovereignty, and our Right to manage our homelands and Treaty Territories.

3.4 Physical and Biological Environments / Physical, Biological and Spiritual Aspects of Place⁶⁹

In working collaboratively with the MS-WTFN's, OPG has been informed that the following sections are presented through a Western Scientific lens, using evidence and forming conclusions based on western science methods and ways of knowing. It is OPG's desire to work with Rights-holding First Nations and interested Indigenous communities to incorporate Indigenous Knowledge and governance to guide the NNW Project and the IA process.

As *Michi Saagiig Anishinaabeg*, we value, are connected to, and maintain relationships with the Lands, Waters and all Relatives that we share place with. Within our worldviews, humans are an integral part of the physical, biological, and spiritual landscape (Geniusz, 2009). Our people have observed, related to, and learned from, the Lands, Waters and all Relatives, within and surrounding the NNW site, over several generations, since *me'wzha*.

Some of our Relatives, including Lands, Waters, Winds, Rocks, Plants, Animals, and Little Spirits, are non-human Beings. They are alive, have a spirit, and share relationship and kinship connections with us. All of our Relatives are spiritually, culturally, economically, and relationally valued. We live in familial harmony with our Relatives, to whom we have responsibilities; to live in ongoing deep relationships of care and reciprocity. Our Relatives are our helpers, sharing lessons, instructions, and gifts. Within this section, we have highlighted some aspects of our

⁶⁹ The MS-WTFNs appreciate the intention of the *Guide to Preparing an Initial Project Description and a Detailed Project Description* to ensure that all aspects of the NNW Project are understood by characterizing specific components of the environment under specific sections and headings. The term 'environment' is defined by the Agency as '*the components of the Earth, and includes a) the land, water and air, including all layers of the atmosphere; b) all organic and inorganic matter and living organisms; and c) the interacting natural systems that include components referred to in a) and b)*'. Our ways of knowing and being understand our surroundings in a much deeper way; We consider all aspects of place, and all our Relatives to be interconnected, and therefore not separate from one another. As such, we have added the term 'aspects of place' to the various section headers within Part C, and throughout the document, where appropriate, to connote this interrelatedness. Similarly, within our ways of knowing and being the physical and biological aspects of place cannot be separated from the spiritual aspects, which connect all aspects of place together through relationship. As such we have included the term 'spiritual' in the title of this section. These changes are meant to meet the requirements of the IMTLR, while utilizing different language to better reflect our values, knowledge, and lived experiences.

Relatives, to help characterize the physical, biological and spiritual aspects of place, within and surrounding, the NNW site.

The descriptions of the physical and biological environments within and surrounding the NNW site characterized by OPG, are based on information available from Western knowledge sources.

3.4.1 *Physical Environment / Physical Aspects of Place*

The following provides a high-level description of the physical environment which includes the atmospheric (climate, air quality, noise and light); geology and hydrogeology (physiography, surficial geology, bedrock geology, soil, and groundwater); and surface water (flow, quality, and sediment) for Wesleyville Creek and Marsh and Lake Ontario environments.

Our people have observed, related to, and learned from the Lands, Waters and all Relatives, within and surrounding the NNW site, since *me'wzha*. We have included relational and spiritual aspects of, what western science considers the 'physical environment', throughout each section.

As the IA process continues, OPG remains open to working with the MS-WTFNs to better understand all aspects of the environment so that, where possible, they can be identified, understood and considered as part of the assessment.

3.4.1.1 *Atmospheric Environment / Celestial and Atmospheric Relatives and Aspects of Place*

This section provides a summary of our ways of knowing and being as we relate to our Celestial and Atmospheric Relatives and aspects of place.

This section includes a characterization of the atmospheric environment as understood through western science, completed by OPG.

Our equivalent concept of 'atmosphere' is broad and includes many aspects, in addition to what western science considers the air. It includes our Celestial Relatives, who share with us spiritual and practical teaching, guidance and instructions, and our Atmospheric Relative *Nodin*⁷⁰, which embodies the wind or the air that is breathed. Aspects of the atmosphere function as habitat for our Animal and Little Spirit Relatives. Clean air is spiritually tied to the breath of life, supporting ceremonies and the health of Plant Relatives and our communities.⁷¹

⁷⁰ Throughout this document, we have chosen to include name for our Relative, which most closely corresponds with the western concept and term 'wind' or 'air.' It refers to the natural element — the wind which moves through the trees, across the water, and carries messages in many *Anishinaabeg* teachings.

⁷¹ Knowledge provided by Tracey Taylor, Cultural Administrator at CLFN, and Lois K. Taylor of CLFN informed this paragraph.

Our ways of knowing and being must be considered equally alongside western science to form a deeper understanding of how climate and air quality changes result in real and potential impacts and effects to our communities, as well as the Lands, Waters and all Relatives.

3.4.1.1.1 Climate

The meteorological conditions at the NNW site are expected to be similar to other nearby shoreline areas, including Cobourg and Port Granby. The closest ECCC climate station with publicly accessible long-term climate records is located in Cobourg (Cobourg STP-6151689), approximately 18 kilometres from the NNW site and includes records from 1981-2010⁷². Historical hourly, daily, and monthly weather data is also recorded at the Cobourg AUT and STP stations (6151684 and 6151689). Daily average temperatures range from a low of -5.6°C in January to a high of 19.9°C in July. The mean annual precipitation for Cobourg was 890.4 mm.

In addition, future climate data provides predictions for Wesleyville using data from the Shared Socio-economic Pathways of the Intergovernmental Panel on Climate Change (IPCC) 6th Assessment Report (AR6). The annual average temperature is projected to increase by 3°C to 4°C between 2031 and 2070 under all emissions scenarios. Between 2071 and 2100 the annual average temperature is expected to increase by 4°C under low emissions scenarios and increase by 5°C to 6°C under the two high emissions scenarios. The total annual precipitation is expected to increase 9% by the end of the century under low emissions scenarios and 14% under high emissions scenarios. A meteorological tower will be erected at the NNW site to measure air temperature, relative humidity, precipitation, wind speed and direction, atmospheric pressure, and solar radiation.

Climate change can exacerbate the cumulative adverse real and potential impacts and effects of the NNW Project, and surrounding development, to our homelands. The NNW site is situated on *Gchi Nibi*, which is increasingly sensitive to any shifts in climate. Impacts and effects of climate change are already being felt throughout our homelands and Treaty Territories; We observe shifting animal migration patterns, changing water quality, and unpredictable weather. Climate change has a disproportionate impact on our communities, and on our ways of knowing and being. For example, there have been several winters, in recent memory, where we could not icefish throughout the season, which impacts our ability to provide food for our families and Elders, and represents a loss in the generation and transmission of our Knowledge and social and cultural practices. We assert that continuous monitoring should be planned and established, including a First Nation Guardians program, or other MS-WTFNs-led or informed monitoring

⁷² More recent climate normal from 1991-2020 do not include the Cobourg STP station.

program, consistent with our decision-making authority. We must be included in data collection and interpretation.

3.4.1.1.2 Air Quality

Local air quality is expected to be influenced by local roads (Lakeshore and Wesleyville Road), Highway 401 and Highway 2, agriculture, and recreational activities. There may also be some influence from occasional train traffic from CN and CP rail tracks, and the Port Granby and Port Hope Waste Management Facilities as well as other local industries in Port Hope (i.e., Cameco Fuel Conversion, ESCO Limited and Akzo Nobel Wood Coatings Ltd). There are no pre-existing continuous air quality monitoring stations located at the NNW site and the nearest ECCC or Ministry of the Environment, Conservation and Parks (MECP) stations are in Oshawa and Peterborough. These stations are approximately 40 kilometres west and northwest from the site and would not be considered representative of local site conditions. Some limited studies of ambient dust have also been completed as part of the Canadian Nuclear Laboratories' (CNL) PHAI at the Port Granby Long-Term Waste Management Facility (LTWWMF) (from 2017 to 2022) and the Port Hope Project LTWWMF Construction (2017 to present), which may help inform historical total suspended particulates concentrations near the NNW site. Detailed field studies will be conducted to characterize the local air quality conditions.

Air quality affects terrestrial and human ecosystems; pollutants can harm wildlife and vegetation. Poor air quality impacts our communities' health and the health of our Relatives. It also impacts plant harvesting, ceremonial practices, and our ability to relate to our Celestial Relatives. For example, poor air quality can impact our ability to see the stars and *Dabik Giizis Nookimis*. Other real and potential adverse impacts and effects must be identified through engagement with our community members, as well as through further studies and assessments, including, but not limited to a MS-WTFNs-led Impact Assessment. Impacts to air quality represent an infringement on our Rights.⁷³

3.4.1.1.3 Noise

The existing noise environment is expected to be influenced by local roads (Lakeshore and Wesleyville Road) and Highway 401 and Highway 2, occasional train traffic from CN and CP rail tracks, agriculture and recreational activities as well as natural sounds such as wind and Lake waves. Detailed field studies will be conducted to characterize the local noise environment.

Noise and increases in noise pollution have real and potential adverse impacts and effects on communities and on our Relatives. For example, when there is un-natural noise, our Relatives

⁷³ Knowledge provided by Tracey Taylor, Cultural Administrator at CLFN, and Lois K. Taylor of CLFN informed this paragraph.

cannot hear the land speaking, which causes great confusion. Noise pollution disrupts our ability to hear sounds, which give us guidance and instructions about many aspects of our ways of knowing and being, such as times or locations of harvest. Noise pollution disrupts our ability to locate ourselves within our place, and we can miss out on important guidance. For example, noise pollution can make it difficult to find our sacred locations or places of cultural and spiritual significance.⁷⁴

3.4.1.1.4 Light

Existing ambient nighttime light is expected to be primarily from natural sources (moon) and lighting along roadways, existing on-site tenants and from residences in the local Wesleyville area. Detailed field studies will be conducted to characterize the local light environment.

Changes in lighting can have real and potential adverse impacts and effects to our Relatives, including their ability to navigate landscapes and locate prey and other food sources. Light pollution results in a disruption to our ability to relate to our Celestial Relatives, as it can diminish or limit our ability to see the stars and *Dabik Giizis Nookimis*.⁷⁵

3.4.1.2 **Geology and Hydrogeological Environment / Siniig Relatives & Geological and Hydrogeological Aspects of Place**

This section provides a summary of our ways of knowing and being as we relate our Geological Relatives.

This section includes a characterization the geology and hydrogeological environment as understood through western science, completed by OPG.

Our understanding of the equivalent of ‘Geology’ is broad. *Shkakimikwe* is comprised of the geological and hydrogeological context. She supports the lives of all of our Relatives. *Siniig* Relatives are important for everyday use, and practical uses, such as for pottery, cooking, and artisanship. Our *Mishoomisag* – rocks, stones and minerals – are used in ceremony and are considered by our people to be Grandfathers, who hold the memories of the Earth. They are important for burials. Impacts to *Shkakimikwe*, who we are responsible to care for, as well as impacts to our *Siniig* Relatives, represent impacts to our ways of life and our Rights.⁷⁶

3.4.1.2.1 Regional Physiography

Three major physiographic units dominate the region. From south to north, these are: the Iroquois Plain, South Slope and the Oak Ridges Moraine. In terms of regional topography, the

⁷⁴ Knowledge provided by Eliza Braden-Taylor, Cultural Interpreter at CLFN, informed this paragraph.

⁷⁵ Knowledge provided by Donovan Taylor, Cultural Preservation Manager at CLFN, informed this paragraph

⁷⁶ This paragraph has been informed by Knowledge shared by Tracey Taylor, Cultural Administrator at CLFN, Donovan Taylor, Cultural Preservation Manager at CLFN, and Lois K. Taylor of CLFN.

terrain grades from a weakly broken plain along the north shore of Lake Ontario to a moderately broken upland of the Oak Ridges Moraine in the north (Ontario Hydro, 1990).

3.4.1.2.2 Regional Surficial Geology

Surficial materials consist primarily of loamy tills, but sands and clays are also common, reflecting a fairly complex glacial and glaciolacustrine depositional history. The overburden is deep throughout the region, typically ranging from 60 to 100 m in depth (Ontario Hydro, 1990). Regionally, soils are dominantly medium textured (loam, clay loam) having developed on till and glaciolacustrine materials. Coarse textured soils on sand and gravel are associated primarily with the Oak Ridges Moraine and the sand plain forming the northern portion of the Iroquois Plain physiographic unit.

3.4.1.2.3 Regional Bedrock Geology

The regional geological setting of the area surrounding Wesleyville is characterized by Paleozoic sedimentary bedrock comprised of Middle Ordovician limestones of the Simcoe Group. This geological setting dominates the central and eastern parts of the area and Upper Ordovician shales of the Whitby Formation occur to the west. The bedrock is part of the eastern flank of the Michigan Basin which dips to the southwest.

3.4.1.2.4 Local Surficial Geology

The overburden at the NNW site ranges in thickness from about 10 to 35 m and consists mainly of very dense till. The till is overlain by lacustrine silt, clay and sand of variable thickness and density. Interglacial deposits of very dense layered silt, clay, sand and gravel occur within the till. Pervious soils with higher sand and gravel content have been found to occur close to the overburden-bedrock contact at various locations across the NNW site. A sand and gravel beach occurs along the shoreline. Figure 7 shows a map of the NNW site indicating the historical borehole locations found during research in planning for the geotechnical site investigations. An example cross-section of the geology perpendicular to the lake shore is given in Figure 8.

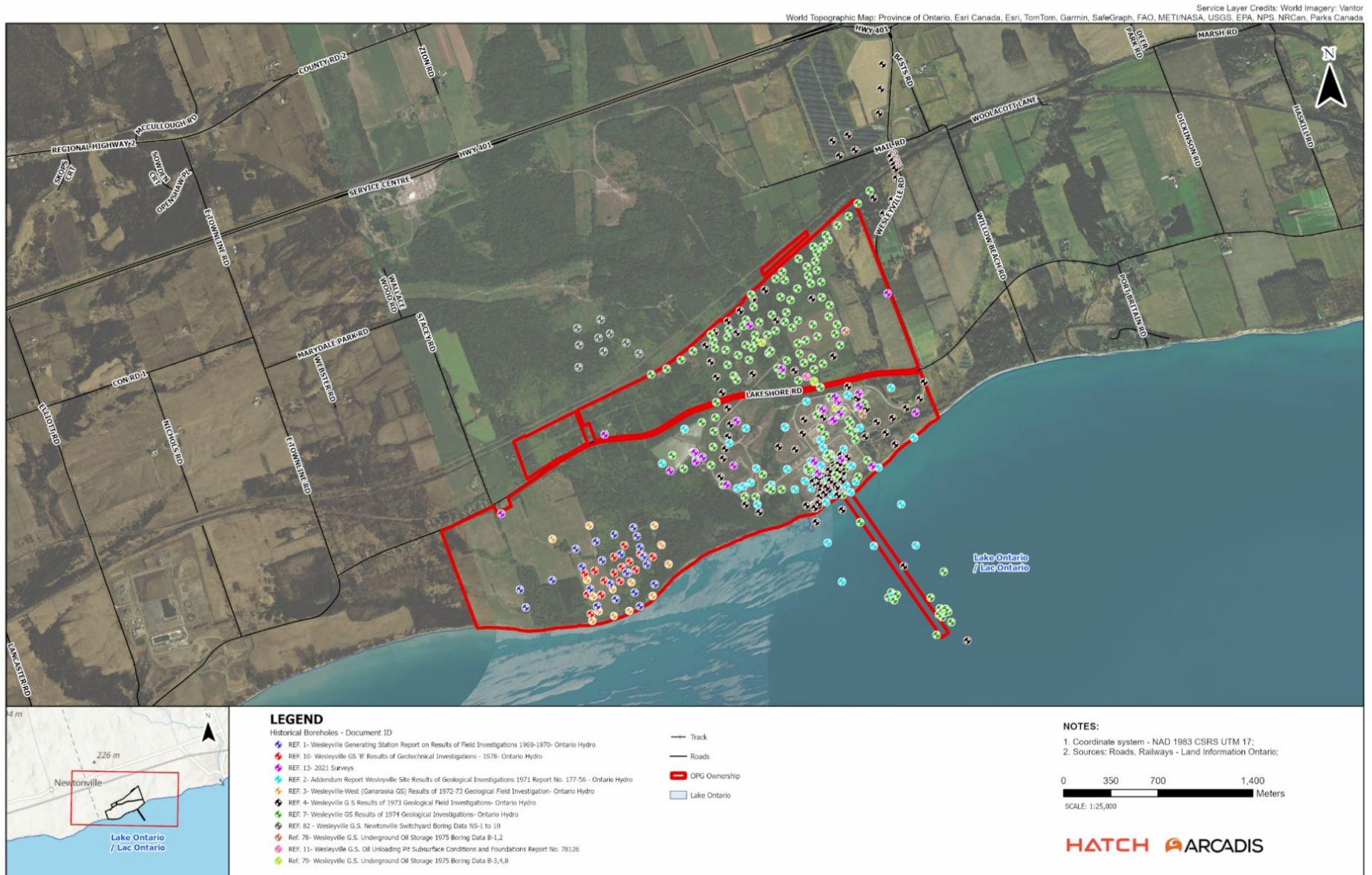


Figure 7: Historical Borehole Locations Overview

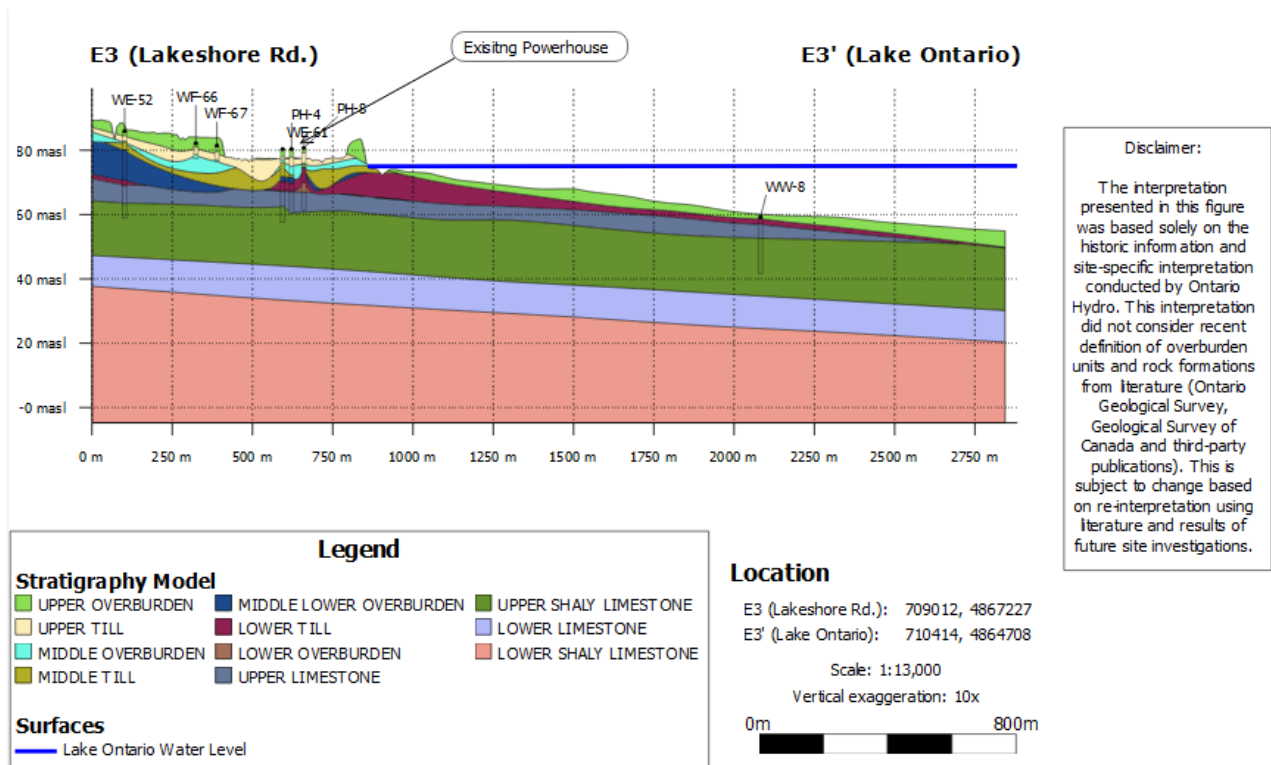


Figure 8: Example Geology Cross-Section of the NNW site

3.4.1.2.5 Local Bedrock Geology

The bedrock underlying the NNW site consists of flat-lying, fossiliferous Lindsay Formation limestone of the Simcoe Group (Upper/Middle Ordovician period). The Lindsay Formation can exceed 60 m in thickness and is underlain by the Verulam Formation of the Middle Ordovician Period.

The thickness of the bedrock beds varies from thin to massive (0.06 m to > 2 m) with the bedrock described generally as dense, fresh and watertight with the exception of the upper 0.5 to 3.0 m which is weathered. The bedrock on the NNW site is covered by extensive soil deposits and is not exposed anywhere on either the east or west sides NNW site including along the shoreline to Lake Ontario. The bedrock surface slopes down gently to the south at a regional dip of 2 to 6 m per kilometre in a south-southeasterly direction.

No indications of structural weakness such as faults, shear zones, alteration zones, solution cavities or deep depressions in the Paleozoic bedrock on the site have been identified during previous investigations. Occasional clay or silt-filled seams have been noted in the bedrock and in the upper 3 metres of bedrock, observations of open, weathered fractures parallel to the bedding have been made.

3.4.1.2.6 Local Physiography and Soils

The NNW site is located on the Iroquois Plain, which borders Lake Ontario and represents the area inundated by the water of former glacial Lake Iroquois.

In terms of local topography, the NNW site is characterized by undulating to moderately rolling topography. The elevation of the shoreline east of Chrysler Point at the NNW site is low and includes marsh areas. Elsewhere, the Lake Ontario shoreline rises gradually from about 75 m above sea level at the lake to about 100 m within a distance of 200 to 300 m.

Specific soil types at the NNW site include the Darlington Loam and the Granby Sandy Loam. The Darlington Loam occupies the largest area. It is a dark grey-brown heavy loam and greyish loam over a weak reddish brown clay loam. The underlying parent material is a grey stony compact loamy till which is high in carbonates and low in stone content. The Granby Sandy Loam surrounds the marsh soils near the shore of Lake Ontario. It consists of a brown sandy loam which grades into a rusty mottled grey coarse sand high in carbonates. The Granby Loam is stone-free.

3.4.1.2.7 Local Hydrogeology

All Waters within *Shkakimikwe* are revered by the MS-WTFNs as a sacred entity; the Waters carry life through *dooskweyaabin* (the blood veins of *Shkakimikwe*) and are central to our creation stories and our water ceremonies, symbolizing life, purification, and spiritual connection. All Waters flowing within, and across *Shkakimikwe*, have supported our people and our Relatives since *me'wzha*. The Waters remain central to our spiritual and cultural responsibilities, our Rights, our social and cultural practices, our food sovereignty, our identity and our wellbeing.

In general, the groundwater on the NNW site is controlled by the presence of Lake Ontario which has a water elevation around 75 m above sea level. The bedrock hydrogeology is controlled by the lake while the aquifers within the overburden units are controlled by the interconnectivity of the more porous sections interbedded with less porous units within the formation. There are three main aquifers on-site 1) the upper sand aquifer, 2) the middle sand aquifer, and 3) the bedrock aquifer. Generally, the groundwater flows from north to south towards Lake Ontario at a gradient of about 3%; the groundwater table generally follows the topography and slopes towards the lake. The reported groundwater levels are generally 0.3 to 4.6 m below the ground surface while this depth can increase to 9.1 m. On the west side of the NNW site there are areas where artesian conditions have been indicated by reports of flowing wells. While flowing wells were not reported on the east side of the NNW site, analysis of pumping test results from the existing powerhouse and forebay area suggest the presence of

leaky artesian to artesian conditions. Areas mapped as potentially significant for source water recharge and where there may be aquifers that have elevated vulnerability to contamination from surface activities overlap the central portions of the site in the areas south of Lakeshore Road. These areas and associated risks may also be better characterized as part of future site investigations and data collection.

As submitted by MSIFN in 2025 and mapped by the MECP areas designated as Significant Groundwater Recharge Areas (SGRA) and Highly Vulnerable Aquifers (HVA) overlap areas within the central northern portions of the NNW site, as shown on Figure 9.

The HVA and SGRA designations are determined by Source Protection Authorities on a landscape scale in order to inform the development of protective measures for a region's source water resources in accordance with the Ontario's Clean Water Act, 2006. Highly vulnerable aquifers are defined as "subsurface, geological formations that are sources of drinking water, which could relatively easily be impacted by the release of pollutants on the ground and surface" (Ministry of Agriculture, Food and Agribusiness, 2023). Within the Trent Conservation Coalition Source Protection Region, HVA were regionally assessed based on factors including, the groundwater depth, the types of soils that overlie the groundwater or aquifer, and the potential presence of transport pathways between ground surface and groundwater (Trent Conservation Coalition, 2018).

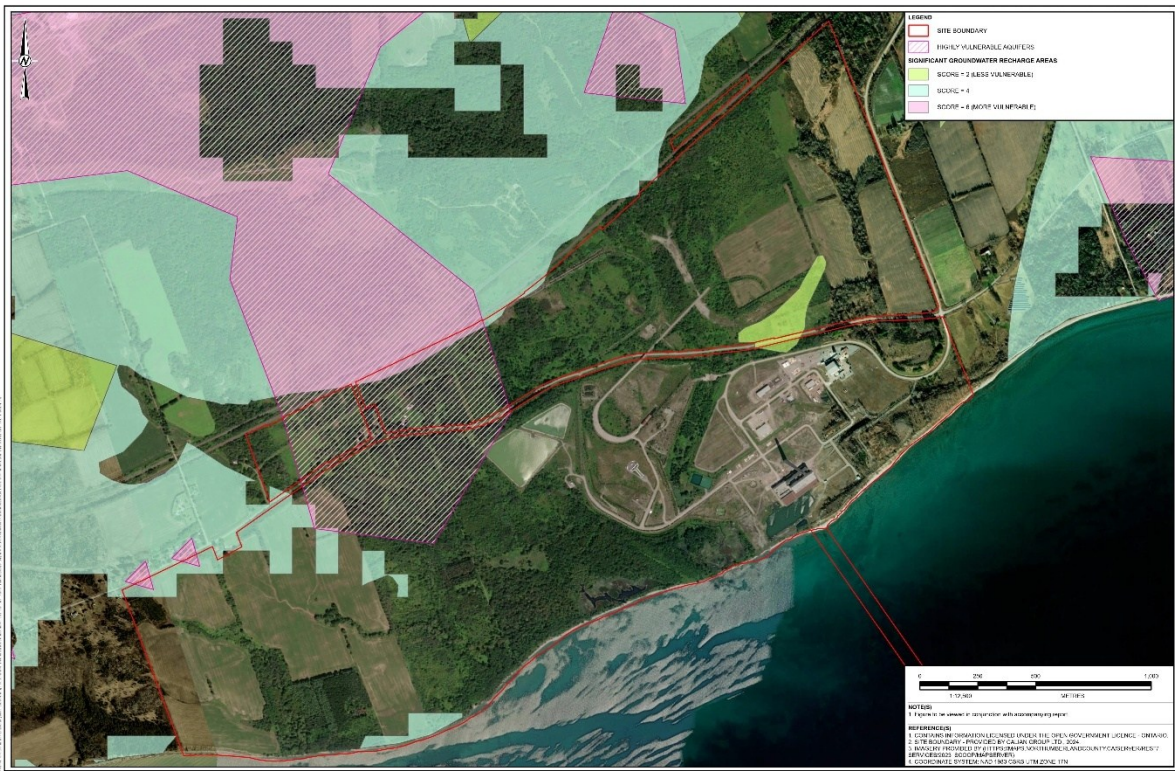


Figure 9: Significant Groundwater Recharge Areas and Highly Vulnerable Aquifer Areas at the NNW site

In working collaboratively with the MS-WTFNs, it was highlighted to OPG that the presence of highly vulnerable aquifers indicates that the groundwater source in these areas of the NNW site is more susceptible to contamination from surface pollutants; contaminants may more easily reach the groundwater with less filtration than in other areas. These areas have stricter land use regulations and management practices to prevent contamination from activities like agriculture, waste disposal, and industrial development.

Groundwater recharge is the process by which aquifers are replenished by the downward movement of water from the ground surface. SGRA within the Trent Conservation Coalition Source Protection Region are areas assessed to recharge the majority of the water balance surplus into the area's groundwater (i.e., more precipitation recharges the groundwater than runs off through surface water systems) and also areas that are hydrologically connected to waterbodies or aquifers which are sources of drinking water (Trent Conservation Coalition, 2018).

'Significant groundwater recharge areas' are specific locations on the land surface where water readily infiltrates the ground, replenishing an aquifer at a rate higher than the average for the

surrounding area (often defined as a recharge rate greater than 15% of the average across a watershed) (Ministry of Agriculture, Food and Agribusiness, 2023). These areas may have permeable soils like sand or gravel, allowing rainwater and snowmelt to easily seep into the ground and reach the water table. SGRA are defined where they connect to surface water bodies or aquifers that are drinking water sources, so are considered important for maintaining groundwater levels that supply drinking water.

These areas and associated risks will be considered when assessing the real and potential impacts of the NNW Project (see Part E – Real and Potential Impacts of the Project (Preliminary) of this document).

3.4.1.2.8 Soil and Groundwater Quality

Studies were conducted in 2021 to evaluate potential for soil and groundwater contamination on the east/developed portion of the NNW site. To initiate the assessment, Areas of Potential Environmental Concerns were identified related to the following current and historical uses: railway spurs, former orchards, former landfill, a former underground storage tank, historic repair shop, soil disturbances noted, wastewater treatment systems. Twenty-four boreholes (19 completed as monitoring wells) were installed between May 3 and June 24, 2021, to assess the presence/absence of impacts related to these areas/issues. Soil and groundwater samples were collected during the investigations and analyzed for Contaminants of Potential Concern based on location/issue. The parameters analyzed included metals, polycyclic aromatic hydrocarbons (PAHs), petroleum hydrocarbons (PHCs), volatile organic compounds (VOCs), organo-chlorine pesticides (OCPs), and per-and polyfluoroalkyl substances (PFAS). When compared to applicable standards (i.e., Tables 3 and 8 of the soil, ground water and sediment standards for use under Part XV.1 of Ontario's Environmental Protection Act, 1990) there were no exceedances of the standards with the exception of salt related parameters in soil and groundwater near the salt storage shed as would be expected. There were detectable PFAS concentrations in soil and groundwater at a subset of the sampling locations on the east side of the NNW site potentially from historical fire fighter training. Most detectable concentrations were below applicable guidelines, although at two locations elevated perfluorooctanesulfonic acid (PFOS) was observed. Further data collection and characterization of soil and groundwater quality will be conducted as part of the IA process and these will include assessment of PFAS parameters and the assessments will be informed by past studies. The west and northern portions of the NNW site are currently undeveloped and have primarily been used for agricultural purposes so soil and groundwater quality is not expected to be impacted in these areas. This will be confirmed as part of future data collection. There are no known domestic water supply wells on-site. There

are groundwater wells upstream of the NNW site at adjacent residences that may be used for drinking.

3.4.1.2.9 Surface Water Environment / *Nibi* Relatives and Aspects of Place

This section provides a summary of our ways of knowing and being as we relate to our Water Relatives.

It should be noted that all watercourses and waterbodies that flow into *Gchi Nibi* are central to our spiritual and cultural identity, as *Michi Saagiig Anishinaabeg*, and are central aspects of our cultural landscapes. We maintain relationships with, and have responsibilities to care for, our Waters, as we have done since *me'wzha*.

Our people have lived, harvested, traded, and gathered along watercourses and at the mouths of the creeks and rivers that flow into *Gchi Nibi* since *me'wzha*. It is only in relatively recent history, that these patterns have been disrupted by colonization, the imposition of Crown and private ownership, as well as through impacts of development on the Lands, Waters and all Relatives.

There are several places of spiritual and cultural significance to the MS-WTFNs along the shores of *Gchi Nibi* and its tributaries, including, but not limited to cultural landscapes, *kina ngadmawaad*, archaeological and ancestral burial sites. All wetlands and shorelines within our homelands are protected by our pre-Confederation Treaties with the Crown.

3.4.1.2.10 Wesleyville Creek and Wesleyville Marsh

The NNW site includes two sub-watersheds named the Wesleyville Creek and the Wesleyville Marsh Creek and is characterized by six watercourses and/or tributaries (Ganaraska Region Conservation Authority, 2013).

The Wesleyville Creek Fisheries Assessment reports over the last decade have included information related to stream temperature and discharge at monitoring sites located within the Wesleyville Creek Watershed (Ganaraska Region Conservation Authority, 2025). Over this time, average summer (July/August) stream temperature in Wesleyville Creek has been recorded as remaining below 18°C, with occasional peaks in temperature over this cold-water regime threshold, at specific sites within the watershed. In general, maximum temperatures recorded were found in the lower parts of Wesleyville Creek, while the lowest temperatures were observed at the station the highest up Wesleyville Creek (Ganaraska Region Conservation Authority, 2025). Stream flow varies seasonally and annually and is influenced by a range of factors (e.g., precipitation rates, and ambient air temperature). Stream flows reported by GRCA for 2014 and 2024 are provided as they represent the most recent available published data and context from ten years prior at the same sampling locations on the NNW site. Further analysis

of trends over time, which may include minimum, maximum and average stream flow datasets, will be used for the IA.

In 2014, stream flows peaked during freshets at 0.76 m³/s and had an average flow of 0.1 m³/s (Ganaraska Region Conservation Authority, 2015). The 2024 data indicated the average stream flow was 0.038 m³/s (without spring freshet data), noticeably lower than previous years. The report indicated the freshet peak was not recorded due to monitoring equipment malfunction (Ganaraska Region Conservation Authority, 2025).

The GRCA is one of the agencies engaged in long-term monitoring of the Wesleyville Creek Watershed and has focused on a range of ongoing studies to assess its health and sustainability. Historically, Wesleyville Creek supported a diverse fish community dominated by brook trout and has been prioritized for maintaining the native gene pool within its population (Ganaraska Region Conservation Authority, 2024). Through annual fish community sampling, GRCA is able to estimate relative abundance, mean biomass (g/m²) and mean density (#/m²) per species captures, while also collecting brook trout life history data (i.e., aging/year class) and documenting spawning locations (Ganaraska Region Conservation Authority, 2024; Ganaraska Region Conservation Authority, 2025). As noted above, Wesleyville Creek is a cold-water stream, and supports both Brook Trout and Rainbow Trout populations. Continued assessments will inform factors influencing the sustainability of brook trout in Wesleyville Creek (Ganaraska Region Conservation Authority, 2024; Ganaraska Region Conservation Authority, 2025).

The tributaries are unnamed (in the Western context) and empty into Lake Ontario immediately south of the NNW site. The GRCA regulated area overlaps the eastern portion of the NNW site, primarily north of Lakeshore Road, extending slightly south of the road. Additionally, an inlet area from Lake Ontario is also present in the southcentral portion of the NNW site, associated with a wetland area. The wetland includes area classified as unevaluated but includes an area of evaluated Provincially Significant Wetland (PSW). There have been restoration efforts related to the Wesleyville Creek since at least the early 1980s.

All wetlands are places of spiritual, relational, cultural, and economic value to the MS-WTFNs, and are protected by our pre-Confederation Treaties with the Crown. As described by Tom Cowie, Consultation Indigenous Knowledge Lead at HFN,

[wetlands] carried a lot of traditional medicines that were used for health and food. Because of the gathering of waters in these areas, they were of big significance. This is our medicine cabinet. It was a drugstore for us; it had everything we needed. This is the biggest reasons why they are significant. It's a one-stop-shop. You could find Labrador tea, which is vitamins, Wiki, or Bear Root, which is our cough medicine. You could find

all these pieces of what we needed right there. Black Ash grew there, which is what we made our baskets from – we used that wood.

Wetlands are important transitional zones between Lands and Waters, providing habitat, and sustenance, for our Relatives. Wetlands host Plant, Fish, Bird and Little Spirit Relatives, serving as spawning and nursery areas, and are biodiversity hotspots. Less than 28% of pre-colonization wetland extent remains in southern Ontario (Ducks Unlimited Canada, 2010), making all remaining wetlands significant in the context of cumulative effects.

In the 1990s, Ontario Hydro funded a biological survey of Wesleyville Creek, resulting in recommendations for improved management (Ganaraska Region Conservation Authority, 2004). Management recommendations at that time included establishing buffer strips around all wetland feeder streams, implementing best management practices for stormwater, and ensuring that all future development projects near the wetland and its tributaries be reviewed for their impacts on fish habitat. This survey led to a stream rehabilitation program and over 20 barriers, primarily beaver dams were removed between the Wesleyville Creek Marsh to just north of Lakeshore Road on Wesleyville Creek in 1999. When the barriers were removed (Author not specified, 1999) Wesleyville Biological Rehabilitation Program in 1999 reported that sediment overburden was scoured and exposed a diverse natural substrate of gravels, sands, rubble, and clays (Author not specified, 1999). During the IA process, a more in-depth review of historic information related to the management activities for Wesleyville Creek will be reflected. As part of integrated management of Sea Lampreys in Lake Ontario, a sea lamprey barrier on Wesleyville Creek was designed in partnership between OPG, GRCA, and DFO. In 2004, the sea lamprey barrier program was implemented, with recommendations to install the barrier each spring and remove in the summer (except 2010, when it was left in place for the entire season). The barrier is a physical structure that blocks access of adult Sea Lampreys, an invasive species, to spawning habitat in lake tributaries, along with non-jumping native fish species. It was also noted there was a decline in White Sucker population within the watershed following the implementation of the barrier (Ganaraska Region Conservation Authority, 2016). The lamprey barrier is actively managed and is used seasonally during periods of lamprey migration to mitigate access (Ganaraska Region Conservation Authority, 2024). For the first time since 2017, White Sucker were captured in Wesleyville Creek during the 2024 assessment program (Ganaraska Region Conservation Authority, 2025).

It should be noted that the Sea Lamprey barrier was designed and implemented without consultation and inclusion of the MS-WTFNs and therefore did not benefit from our ways of knowing and being or consider a Rights-based approach.

3.4.1.2.11 Lake Ontario / *Gchi Nibi*

The Waters and Lakebed, that makeup *Gchi Nibi*, are part of our homelands and remains unceded. *Gchi Nibi*, its shorelines, its tributaries, and their mouths and shorelines, as well as its coastal wetlands, are aspects of our cultural landscapes. The Waters of *Gchi Nibi* and its tributaries have informed our identity, our ways of knowing and being, and our ways of life, since *me'wzha*. *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban), shared:

*What was so attractive for Lake Ontario was the fish coming up from the Atlantic and just overflowing Lake Ontario itself. Any river that flowed into Lake Ontario had huge Salmon runs. Writers of history describe how you could literally walk across these rivers at certain times of the year because of the number of salmon. This was attractive to us.*⁴⁹

Lake Ontario is part of the Great Lakes chain and has a surface area of 19,000 km², a mean depth of 86 m (Great Lakes Commission, 2025), and a maximum depth of 244 m (Great Lakes Guide, 2025). It has a volume of 1,650 km³ and a residence time, defined as the time required to displace all the water in the lake, of approximately 6 years (Great Lakes Commission, 2025).

The hydraulic characteristics of Lake Ontario are determined by the relative magnitudes of inputs (inflows, precipitation and land run-off) against losses (outflows and evaporation). Lake Ontario's inflows from Lake Erie via the Niagara River and the Welland Canal, total approximately 5,850 m³/s and accounts for approximately 79% of all inputs to the lake. Land runoff (approximately 1,050 m³/s) and over-lake precipitation (approximately 500 m³/s) account for the remainder of inputs (United States Geological Survey, 2005). The several small streams described above also provide input to the Wesleyville area of the lake. Lake Ontario's losses include outflows via the St. Lawrence River (approximately 7,000 m³/s at the Moses-Saunders power dam, near Cornwall, Ontario and Massena, New York) and evaporative losses (approximately 400 m³/s of flow) (United States Geologic Society, 2005).

The hydraulic characteristics specific to the NNW site and immediate surroundings are influenced, to a large degree, by the general characteristics of Lake Ontario as a whole. Water levels are generally affected by seasonal imbalances between inputs and losses - with peak water levels tending to occur in June and low water levels tending to occur in December (United States Army Corps of Engineers, 2025) - and short-term wind and atmospheric pressure variations. Nevertheless, regulation of Lake Ontario's water levels via the Moses-Saunders Dam

on the St. Lawrence River since the 1960s substantially minimised the natural range of water levels in the lake until 2016. In an effort to improve the environmental performance of coastal wetlands in Lake Ontario and the upper St. Lawrence, Lake Ontario's water levels which were expected to be managed between 73.56 m and 75.73 m following historical analysis for the Lake Ontario St. Lawrence River Plan of 2014 (International Lake Ontario-St. Lawrence River Board, 2025).

According to the National Oceanic and Atmospheric Administration, there has been a significant downward trend in Lake Ontario water levels over the past five years from record highs to approximately the long-term average. Due to the effects of Coriolis and seasonal temperature stratifications, summer currents typically travel around most of Lake Ontario's periphery (nearshore environment) in an anticlockwise direction (i.e., towards the west), although a small but significant clockwise gyre is located within the western portion of Lake Ontario (Beletsky, Saylor, & Schwab, 1999) (Rao, 2005) that potentially extends east to Wesleyville. As such, frequent current reversals along the NNW site frontage should be anticipated. The size of this smaller clockwise gyre is believed to increase during the winter months, suggesting a predominant winter current direction along the NNW site frontage towards the east, however, it has been noted that significant interannual variability may exist (Beletsky, Saylor, & Schwab, 1999).

Historical lake currents recorded offshore of the NNW site noted that water movement is predominately alongshore, with a predominance for the west quadrant (west-southwest) and average speeds ranging from 10 to 12 cm/s. Storm-induced currents can be quite strong (up to several tens of centimetres per second) in the nearshore; however, average current speeds are generally low (a few centimetres per second) (Beletsky, Saylor, & Schwab, 1999) (Rao, 2005) and currents tend to be stronger during the winter than summer months.

The recent (1995-2024) lake-wide water surface temperature of Lake Ontario has ranged from a low of approximately 2°C in February to a high of approximately 22.5°C in August, although lake-wide average temperatures have dropped below this low in some years and exceeded this high in others (National Oceanographic and Atmospheric Administration, 2025a). Based on historical reporting, the maximum daily mean and hourly temperatures of the lake surface water at the NNW site have reached 25.5°C and 27.0°C, respectively. The NOAA (National Oceanographic and Atmospheric Administration, 2025b) notes that there has been a notable increasing trend in lake surface temperatures over the past five years, presumably reflecting

increases in summer air temperatures over the same period.

The offshore bathymetry at the NNW site consists of generally rugged lake bottom in nearshore areas, associated with fields of large boulders and coarse sediments, as well as occasional outcrops of glacial till or clay. Offshore, depth progresses more uniformly from approximately 10 m to 15 m at 1 km from shore; 25 m to 30 m at 3 km from shore; and 60 m to 70 m at 10 km from the shore.

Shoreline erosion is a natural process which is caused by movement of shore materials by wind, seiche activity, currents, surface runoff, groundwater seepage, and ice movement. As a result, large amounts of sediments are entrained and transported as littoral transport parallel to the shoreline. Sediment transport at the NNW site includes a net eastward drift of littoral/bedload materials (Rao, 2005). The *Lake Ontario Canadian Nearshore Assessment* (Environment and Climate Change Canada, 2022) reported low levels of shoreline hardening, and multiple littoral barriers present between Bowmanville and Cobourg, both of which influence coastal processes. Although lake currents are typically responsible for movements of finer suspended materials, the transport of coarser littoral materials is primarily determined by wave action (which is influenced by the prevailing winds).

3.4.2 *Biological Environment* / Biological Relatives and Aspects of Place

OPG has characterized the biological environment to include the terrestrial and aquatic environments (including wildlife, vegetation, and Species At Risk (SAR) as defined by provincial and federal legislation).

This section provides a summary of our ways of knowing and being, as we relate to our biological Relatives.

Following glacial recession and prior to European settlement, the NNW site area landscape composition transitioned from tundra to forest in the periglacial or recently exposed landscape, including pine and hardwood forest, as well as wetlands. The shoreline over this period would have presented a different configuration than the present, as shoreline recession has advanced. Vegetation would also have been responsive to changes in climate including the warmer and drier conditions between about 9000 to 6000 years ago.

Evidence of a remnant *mishkode* is located in the vicinity of the NNW site. *Mishkode* were created and cultivated by our *Aanikoobigiganaanan*. Several *Michi Saagiig Anishinaabeg* archaeological sites, as well as *kina ngadmawaad* has been recovered within the vicinity of the

NNW site. There is evidence of additional potential archaeological sites or *kina ngadmawaad*, including a potential ancestral burial site within the NNW site. *Mishkode*, wetlands, shorelines, mouths of creeks and rivers, and *Gchi Nibi*, are each aspects of our cultural landscapes, and are areas that we harvest, and visit seasonally. These areas are where we gather and share Knowledge, and engage in social functions, and cultural activities.

OPG is committed to working with the MS-WTFNs to better understand what characterized the NNW site and surrounding area previous land-use, so that this information can inform the NNW project, in areas such as restoration and understanding cumulative effects.

The NNW site and surrounding area has been the focus of multiple biological studies (both previously and ongoing) by OPG and a variety of groups including local field naturalists, Trent University, Fleming College, and ECCC. These biological studies have compiled a vast amount of information that is beneficial for the preliminary characterization of the NNW site and surrounding area and can be used as a foundation for detailed field studies to document the existing conditions. OPG remains committed to working with the MS-WTFNs to identify, understand, and incorporate MS-WTFNs' Knowledge related to the NNW site and surrounding area throughout the project lifecycle and as part of the IA process.

3.4.2.1 Terrestrial Environment / Terrestrial Relatives & Aspects of Place

This section provides a summary of our ways of knowing and being, as we relate to our terrestrial Relatives. For the purposes of this document, we have focused on our Plant, Animal, Fish, Little Spirit, and Bird Relatives.

We consider all creatures as our Relatives, and they are spiritually, culturally, economically, and relationally valued. For example, some Animal Relatives offer us teachings, instructions, and gifts which inform our ways of knowing and being, our identity and our ways of life. Our communities have Clan Systems, which are an incredibly meaningful part of our culture, community, spirituality, politics, and land-connection. Clan Systems explore human and non-human Relations, roles within our communities, our political stances, and our interactions with the land.⁷⁷

As shared by Eliza Braden-Taylor, Cultural Interpreter at CLFN:

Traditionally there are seven original clans and several sub-clans that fall under the original 7. In Curve Lake, we recognize the 7 original clans as Marten, Crane, Loon, Bird, Bear, Fish, and Deer. Our Clans are passed to one another paternally. Each Clan has a role to play to ensure that the land and community are healthy, functional,

⁷⁷ This paragraph has been informed by Knowledge shared by Eliza Braden-Taylor, Cultural Interpreter at CLFN.

and thriving.

Our Clan animal is considered our family, and it becomes our responsibility to protect our clan animal. We can never hunt, trap or consume our clan animal, instead we must defend them and their habitat the same way we would defend ourselves and our homes. When out on the land, one must think of the species and habitat that their Clan relies on and adhere to their responsibilities to protect those animals and areas for future generations of their Clan. This acts as species and habitat preservation.

Our values must inform the understanding and analysis of the existing conditions of the NNW site and surrounding areas as described within this section.

This section presents vegetation communities, bird communities and terrestrial wildlife including amphibians and reptiles, mammals and insects as observed, recorded and characterized through western science methods, as well as documents the potential for SAR, as defined by provincial and federal legislation, at the NNW site. OPG remains committed to working with the MS-WTFNs to better understand and incorporate Indigenous values and Knowledge into the analysis and assessment of the terrestrial environment throughout the project lifecycle and as part of the IA process.

3.4.2.1.1 Vegetation Communities / Plant Relatives

Our Plant Relatives, including those expected to be present within the NNW site, are helpers to us; They provide us with medicine, sustenance, and gifts, to help us with ceremony, toolmaking, craftsmanship, creativity, and ingenuity. Our Plant Relatives offer us instructions, stories, and Knowledge. Many Plant Relatives are relied upon by other Relatives for sustenance, habitat, and for their function in the ecosystem. We hold responsibilities to protect our Relatives; They are part of our spiritual and cultural fabric, each having spiritual, cultural, economic, and relational value.

The NNW site is located on the north shore of Lake Ontario in the Oshawa Cobourg Ecodistrict 6E-13. This Ecodistrict is characterized as a landscape that has recently been dominated by pasture, cropland, or other anthropogenic uses with a mixture of natural or naturalized land cover (Wester, Henson, Crins, Uhlig, & Gray, 2018). This landscape composition is reflected at the NNW site with a mix of anthropogenic land cover types including predominantly industrial/anthropogenic within the east side of the NNW site and a mosaic of croplands, plantations, meadows, thickets, wetlands, and woodlands dominating the remainder of the NNW site. Woody vegetation found throughout the Ecodistrict that would be expected to be present within the NNW site include: Sugar Maple, Red Maple, Silver Maple, Butternut,

American Beech, American Basswood, Yellow Birch, Black Cherry, White Oak, Bur Oak, American Elm, Balsam Poplar, White Ash, Black Ash, Green Ash, Eastern Hemlock, Eastern White Pine, Eastern White Cedar, White Spruce and Balsam Fir. Large portions of the NNW site have been subject to various disturbances and varied origins. For example, the western woodlot and parts of the central natural area comprise cultural plantation in various stages of succession, while the southeastern woodlot includes mature trees and has been suggested as potentially representing a remnant old growth feature. Detailed field studies will be necessary to classify and delineate the vegetation communities using Ecological Land Classification system for Southern Ontario (Lee, et al., 1998) and inventory of the flora within the NNW site.

The Wesleyville Joint Working Group has provided information that the Wesleyville Ravines, located north of the NNW site, support an old-growth Eastern Hemlock forest that provides rare and ecologically significant habitat within the region. The Wesleyville Joint Working Group is comprised of members from the Willow Beach Field Naturalists and the Northumberland Land Trust. The Wesleyville Joint Working Group report these stands are among the oldest forests in the district, with tree core samples ranging from 155 to 220 years in age. According to the Wesleyville Joint Working Group, the ravines create a unique microclimate, remaining cooler during summer and milder in winter, which contributes to the persistence of this diverse and sensitive forest community. The Wesleyville Joint Working Group has highlighted that the presence of such an old-growth system is important to the broader ecological connectivity and conservation value of the landscapes surrounding the NNW site (Wesleyville Joint Working Group, 2023).

Consistent with other portions of Ecodistrict 6E-13 that are located along the shoreline of Lake Ontario, the NNW site contains near vertical shoreline bluffs interspersed with coastal wetland communities. These shoreline bluff communities can contain uncommon vegetation communities and rare plant species, such as Grass-of-Parnassus and Fringed Gentians, both of which are present along the bluff at the NNW site. Studies carried out as part of OPG's Wildlife Habitat Council certification process have noted the presence of a wild rice species (*Zizania sp.*) within the central coast marsh. A portion of the bluff on the western side of the NNW site is designated as a Regional Life Science Area of Natural and Scientific Interest (ANSI). Coastal wetland communities occur within the central marsh including Chrysler Point PSW as well as other unevaluated wetlands. A portion of the central marsh is also designated as a Regional Life Science ANSI. The boundaries for the wetlands will be characterized as part of future data collection.

Coastal wetland communities are candidate locations for *manoomin*, which is a staple of our communities' diet and central to our ways of life. *Manoomin* is important for the food sovereignty and security of the MS-WTFNs. While we continue to grow and harvest *manoomin*, our ability to do so at a level sufficient to provide food-security to our communities, remains hampered by development, restrictions, and in some cases intentional sabotage. *Manoomin* is significant for the ecology of the Waters, as well as to the health and wellbeing of our Fish, Bird, Little Spirit, and Animal Relatives. All bodies of water, including coastal wetlands are spiritually, culturally, economically, and relationally valued, and are protected by our pre-Confederation Treaties with the Crown.⁷⁸

3.4.2.1.2 Bird Communities / Bird Relatives

Our Bird Relatives, including those expected to be present within the NNW site, are helpers to us; They provide us with medicine, sustenance, and gifts to help us with ceremony, toolmaking, craftsmanship, creativity, and ingenuity. Our Bird Relatives offer us instructions, stories, and Knowledge. Many Bird Relatives are relied upon by other Relatives for sustenance, creation of habitat, and for their function in the ecosystem. We hold responsibilities to protect our Relatives. They are part of our spiritual and cultural fabric, each having spiritual, cultural, economic, and relational value.⁷⁹

The varied habitat types within the NNW site can support a wide range of seasonal habitat functions for bird communities and species including breeding and migrant habitat, migratory stopover habitat and winter raptor feeding and roosting areas. There has been a focus on the breeding bird communities within the vicinity of the NNW site with multiple surveys completed over the past two decades as part of the NNW site biodiversity monitoring program.

Breeding bird surveys have identified over 100 species of birds that are either confirmed, probable or possibly breeding within the NNW site or surrounding area (Wesleyville Joint Working Group, 2023). The species documented are representative of the range of habitat conditions (Wesleyville Joint Working Group, 2023). Within woodland communities, Red-eyed Vireo, Ovenbird, Eastern Wood-pewee, Great Crested Flycatcher, and Wood Thrush were the most commonly encountered breeding species. The commonly documented shrubland species were Song Sparrow, House Wren, Yellow Warbler, Field Sparrow, American Goldfinch and Cedar Waxwing. SAR grassland species such as Eastern Meadowlark, Bobolink and Grasshopper Sparrow have also been documented. Wetland species include the threatened Least Bittern as well as typical marsh species like Virginia Rail. Several raptor species have been documented

⁷⁸ This paragraph has been informed by Knowledge shared Lois K. Taylor of CLFN.

⁷⁹ This paragraph has been informed by Knowledge shared Lois K. Taylor of CLFN.

during breeding bird surveys such as Osprey, Sharp-Shinned Hawk, Cooper's Hawk, Red-Tailed Hawk, and American Kestrel.

Monitors from the MS-WTFNs have observed a family of Bald Eagles (two adults and a juvenile) near the wetlands within the NNW site, indicating likely breeding activity.

Winter bird counts have documented several raptor species within the NNW site and surrounding area including Bald Eagle, Northern Harrier, Sharp-shinned Hawk, Cooper's Hawk, Red-tailed Hawk, and a Barred Owl (Wesleyville Joint Working Group, 2020). Use by owls in the winter would be anticipated based on habitat.

Most areas of natural habitat in southern Ontario, especially those with physical structure (i.e. areas with woody vegetation) attract some migrant songbird species during the peak spring and fall migration periods. The shoreline of Lake Ontario often provides important habitat for large numbers of migrant birds to rest and forage on route to their summer or winter grounds. As the NNW site is located on the shoreline of Lake Ontario, it represents a location that would provide habitat for migrants that cross the lake in the spring and make first landfall. Migrant birds often feed on insects emerging from Lake Ontario in May. Similarly in the fall, migrants move along the north shore of the lake and can gather in large numbers.

Some bird species, such as Crane and Loon species, are part of our Clan Systems. There are additional sacred responsibilities to protect clan species, and the other species, and habitats, that these clan species rely upon. Eagles, Raptors, and Roughed Grouse have spiritual importance, and are important sources of food and ceremonial items for our communities.⁸⁰

3.4.2.1.3 Mammal Communities / Mammal Relatives

Our Animal Relatives, including those expected to be present within the NNW site, are helpers to us; They provide us with medicine, sustenance, and gifts to help us with ceremony, toolmaking, craftsmanship, creativity, and ingenuity. Our Animal Relatives offer us instructions, stories, and Knowledge. Many Animal Relatives are relied upon by other Relatives for sustenance, for the creation of habitat, and for their function in the ecosystem. We hold responsibilities to protect our Relatives. They are part of our spiritual and cultural fabric, each having spiritual, cultural, economic, and relational value.⁸¹

Over ten species of mammals have been recorded in the NNW site or surrounding area (Wesleyville Joint Working Group, 2023) in recent years. Many of the species recorded are presently common to the local area including White-Tailed Deer, Coyote, Red Fox, Raccoon,

⁸⁰ This paragraph has been informed by Knowledge shared Lois K. Taylor of CLFN.

⁸¹ This paragraph has been informed by Knowledge shared Lois K. Taylor of CLFN.

American Beaver, Mink, and Grey Squirrel. Other common mammal species that could be expected include Striped Skunk and Groundhog. The woodland, thickets, and wetland within the NNW site have the potential to provide a range of functions for all eight of the bat species that occur in the province (including SAR bats) such as foraging habitat, maternity and day roost habitat as well as potential stopover habitat for migratory species. (Wesleyville Joint Working Group, 2023)

Many common mammals are part of our Clan Systems and there are additional sacred responsibilities to protect our clan species, and the other species and habitats, that these clan species rely upon. Mammals are an important food source to our communities and play a role in the economic, ceremonial, social, and medicinal practices of our people.⁸²

3.4.2.2 Species at Risk (as determined by Federal and Provincial Legislation)

Based on the habitats present, background information and known ranges and habitat preferences, there is the potential for multiple SAR, as determined by Federal and Provincial legislation, to occur within the NNW site. Multiple SAR species have been recorded in the background information for the NNW site including Butternut, Eastern Meadowlark, Least Bittern, Wood Thrush, Monarch, as well as Common Snapping Turtle and Midland Painted Turtle (see also Section 3.4.2.4). Detailed field studies will be conducted to determine the occurrence and habitat use by SAR.

Monitors from the MS-WTFNs have observed a family of Bald Eagles (two adults and a juvenile) near the wetlands within the NNW site, indicating likely breeding activity.

3.4.2.3 Insect Communities / Little Spirit Relatives

Our Little Spirit Relatives, including those expected to be present within the NNW site, are helpers to us. Little Spirit Relatives and other Animal Relatives care for *Aki* and the Waters, creating healthy soil and helping with vegetation growth. Many Little Spirit Relatives are relied upon, by other Relatives for sustenance, for the creation of habitat, and for their function in the ecosystem. Little Spirit Relatives offer us gifts, instructions, and Knowledge. We hold sacred responsibilities to protect our Relatives. They are part of our spiritual and cultural fabric, each having spiritual, cultural, economic, and relational value.

Based on the variety of habitats within the NNW site there is the potential for a diverse insect community to occur. So far more than 50 species of insects have been documented for the NNW site or surrounding area including multiple butterflies, moths and odonate species and many more would be expected to be identified. Of some note is the occurrence of Painted

⁸² This paragraph has been informed by Knowledge shared Lois K. Taylor of CLFN.

Skimmer, a presently uncommon species of dragonfly (Wesleyville Joint Working Group, 2023). Many insect species, for example odonates, have both an aquatic and terrestrial life history phase. Field studies that include aquatic benthic invertebrates are proposed. These and available published information will inform the understanding of these life phases through the IA.

The areas of open meadow within the NNW site have the potential to provide habitat for migrant butterflies. The open meadows could function as stopover areas, which are important feeding habitat for butterflies to refuel before carrying on along their migration route. Such habitat along the shoreline of Lake Ontario is particularly important as butterflies require a great deal of energy derived from feeding on nectar-rich plants in order to travel across such large and inhospitable expanses as Lake Ontario. In particular, the sheltered coniferous trees along the shoreline have the potential to provide fall roost habitat for the Monarch Butterfly.

3.4.2.4 Aquatic Environment / Fish Relatives and Aspects of Place

3.4.2.4.1 Aquatic Studies

Aquatic aspects of place, including *Gchi Nibi*, its tributaries, and coastal wetlands, have been observed and understood relationally, by the MS-WTFNs, over several generations, since *me'wzha*. Our *Aanikoobiganaanan* established and maintained a presence along the shoreline *Gchi Nibi*, and the shorelines and mouths of its tributaries for thousands of years. It is only in the recent past that our presence in these areas has been disrupted by colonization, and the taking up of Lands and shorelines into Crown and private ownership. The *Anishinaabemowin* phrase '*Michi Saagiig Anishinaabeg*' can most readily be understood to translate as 'People of the Large River Mouths', in English. We are Canoe people, navigating the Great Lakes, and travelling inland through the waterways. Our women are the caretakers of the Waters and are responsible to ensure our Waters are protected and clean.⁸³

Our Fish Relatives, include Fish, Amphibian, and Reptile Relatives, many of whom are expected to be present within and in areas surrounding the NNW site. Our Fish Relatives are helpers to us; They are an important food source to our communities and play a role in the economic, ceremonial, social, and medicinal, practices of our people. Many Fish Relatives are relied upon, by other Relatives, for sustenance, for the creation of habitat, and for their function in the ecosystem. We hold sacred responsibilities to protect our Relatives.⁸⁴

Aquatic studies in Lake Ontario near the NNW site were conducted by Ontario Hydro in 1978 to characterize the NNW site's physical characteristics, water quality, sediment characteristics and

⁸³ This paragraph has been informed by Knowledge shared Tracey Taylor, Cultural Administrator at CLFN.

⁸⁴ This paragraph has been informed by Knowledge shared Lois K. Taylor of CLFN.

chemistry, monthly adult and larval fish presence, fish stomach contents, benthic invertebrate communities (“benthos”), attached algae, Zooplankton, and Phytoplankton. It also summarized published data on fish spawning, temperature (1969-1978) and currents (1970-1986). As part of these studies, the Wesleyville shoreline was mapped in 1979, including shoreline composition and discharge points (Ontario Hydro, 1979).

Aquatic studies within two sub-watersheds (Wesleyville Creek and Wesleyville Marsh Creek) have been conducted since the 1990s (Ganaraska Region Conservation Authority, 2004). As part of a stream rehabilitation program to enhance Brook Trout habitat, a repeatable survey was established in 2003 and has been ongoing for nearly twenty years. Sampling locations were primarily located within the Wesleyville Creek (eight total, although sites were not sampled every survey). Additional sites were added in 2017 and 2018: one at Wesleyville Shoreline, two at Wesleyville Creek Shoreline, and one at Wesleyville Marsh Creek.

Table 9 indicates the number of species observed at each of the survey locations across the NNW site, as well as at a nearby site in Lake Ontario near Brighton, which was included in the 2023 Ontario Ministry of Natural Resources and Forestry's annual report. Figure 10⁸⁵ below presents the full fish assemblage observed at each location (Ontario Ministry of Natural Resources and Forestry, 2024). The report shows data as either total counts, average counts per year (depending on sampling frequency), or catch per gill net set (for the Brighton site). Only species with non-zero values are displayed in each plot.

Parameters reported in the GRCA's *Fisheries Reports* included spring and fall spawning surveys, Rainbow Trout and Brook Trout biological surveys, habitat assessments, fish community surveys, Index Biotic Integrity (IBI) analyzes, benthic invertebrate surveys, freshwater mussel surveys, creek damage and streambank erosion map, and riparian characterization. It should be noted that not every parameter was tested or reported in each survey.

Many common fish species are part of our Clan Systems and there are additional sacred responsibilities to protect our clan species, and the other species and habitats that these clan species rely upon. They are part of our spiritual and cultural fabric, each having spiritual, cultural, economic, and relational value.⁸⁶ Monitors from MS-WTFNs have observed and recorded numerous Fish Relatives within the vicinity of the NNW site.

⁸⁵ Monitors from MS-WTFNs observed and recorded additional fish species not represented in Figure 10 within the vicinity of the NNW site.

⁸⁶ This paragraph has been informed by Knowledge shared by Lois K. Taylor of CLFN.

Table 9: Wesleyville aquatic sampling locations, survey dates, and number of fish species

Location	Dates Included	Number of Species
Lake Ontario (Wesleyville)	May-Dec 1978	35
Lake Ontario (Wesleyville) Shoreline	2017-2021	11
Wesleyville Marsh Creek	2018, 2019, 2021	17
Wesleyville Creek	2003, 2010-2021, 2023	15
Lake Ontario (Brighton) (Ontario Ministry of Natural Resources and Forestry, 2024)	2023	9

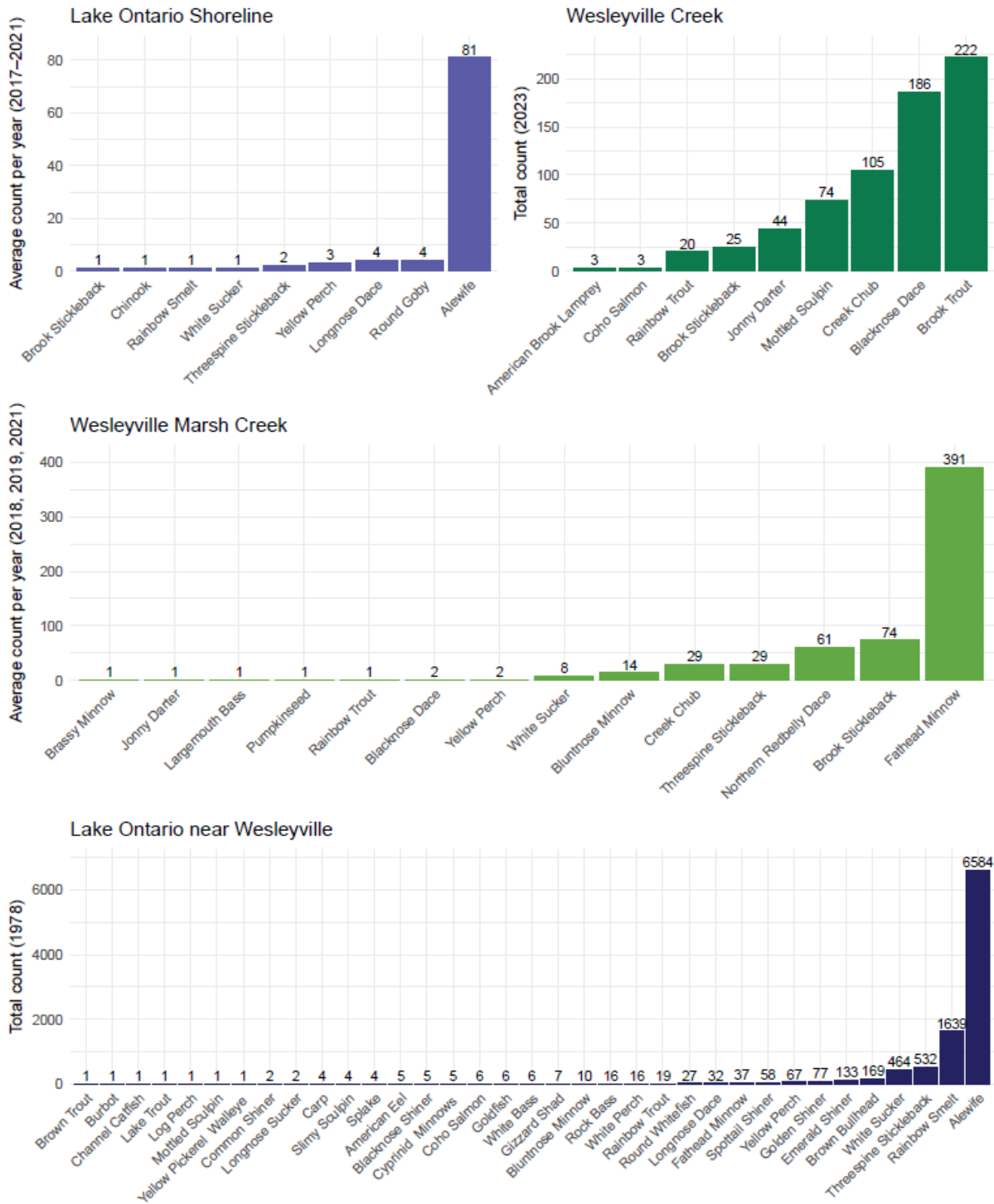


Figure 10: Fish species abundance across four locations near Wesleyville, ON and one site near Brighton, ON (Ontario Ministry of Natural Resources and Forestry, 2024)

3.4.2.4.2 Fish Habitat / Fish Relative Habitat

The fish habitat within the Wesleyville Creek and Wesleyville Marsh Creek Watersheds has been affected by anthropogenic land use and beaver activity. In addition to wetlands (31%), forests (26%), and meadows (19%), the riparian area within 50 metres of the creeks is characterized by agricultural (13%) and developmental (11%) zones. Anthropogenic factors such as agriculture, culverts, and off-road vehicle use contribute to sedimentation and habitat fragmentation, further influencing the creeks' fish habitat (Ganaraska Region Conservation Authority, 2004-2006, 2010-2022, 2024). Wesleyville Creek has captured another tributary, when the tributary was rechanneled into Wesleyville Creek at some point in the past (circa 1970s). This tributary is the eastern branch, which runs parallel to Lakeshore Road and enters Wesleyville Creek downstream of Lakeshore Road, (Ganaraska Region Conservation Authority, 2015). Beaver dams significantly influence the hydrology and sediment dynamics of the Wesleyville Watersheds, providing benefits such as deep pools for overwintering trout, but also posing challenges like increased in-stream temperatures and impediments to fish migration sedimentation.

Aquatic plants or vegetation within the Wesleyville Creek Watershed have not been characterized through historic studies. In 1978, seasonal changes in percent composition and biomass of Phytoplankton and attached algae were reported in Lake Ontario near Wesleyville (Ontario Hydro, 1990). Detailed field studies will be conducted including aquatic habitat surveys within the study area.

3.4.2.4.3 Amphibians and Reptiles⁸⁷ / Amphibian and Reptile (Fish) Relatives

All amphibians and reptiles are considered our Relatives. They are part of our Fish Clan and hold spiritual, cultural, and relational value to us. Amphibian and Reptile Relatives, including those expected to be present within the NNW site, are helpers to us; They provide us with medicine, sustenance, and gifts to help us with ceremony, toolmaking, craftsmanship, creativity, and ingenuity. They offer us Knowledge, stories and instructions. For example, within our ways of knowing and being, turtles are sacred Relatives, representing our concept of Truth and are also central to our creation stories. There are additional responsibilities to protect our sacred Relatives, as well as the other species, and habitats, that turtles rely upon. Snapping Turtles, Green Frogs and Bull Frogs are a food source for our people. *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban) shared that “*bullfrogs were always harvested by our people, for centuries*” (Williams-ban, 2018).

⁸⁷ After learning from the MS-WTFNs that amphibians and reptiles are understood by the Michi Saagiig Anishinaabeg to be Fish Relatives, OPG has moved its corresponding characterization of amphibians and reptiles from the terrestrial environment section to the aquatic environment section.

Records of amphibians and reptiles for the NNW site have primarily been generated through monitoring activities focused on the coastal wetland communities and two constructed ponds referred to as the north ponds. Six breeding amphibian species have been documented: Spring Peeper, Wood Frog, Green Frog, Gray Tree Frog, Northern Leopard Frog and American Toad (McKenna, 2023). Two species of turtle have been observed (Common Snapping Turtle and Midland Painted Turtle). Two turtle nesting areas have been documented with the areas studied: an area along the shoreline by the coastal wetland communities and a created turtle nesting area near the sewage lagoons (McKenna, 2023). Although previous monitoring efforts have been focused on the coastal wetland and north pond areas there is other suitable amphibian and reptile habitat throughout the NNW site that will require additional study. Students from Fleming College participating in field studies at the NNW site reported an observation of Dekay's Brownsnake.

3.4.2.4.4 Species at Risk (as defined by Provincial and Federal legislation)

Although no aquatic SAR have been observed at the NNW site to date, two species of conservation concern have been identified as potentially present based on their known population ranges. Deepwater Sculpin, a freshwater fish, is listed as special concern (Species at Risk Act) and is typically found on soft sediments in deep (approximately 60-150 m) lakes (Eakins, 2024). Deepwater Sculpin is not listed as a species of conservation concern by the province (Endangered Species Act). The Purple Wartyback, a freshwater mussel, is listed as threatened both federally (SARA) and provincially (ESA) and can be found in rivers that have moderate to swift currents with substrates composed of cobble, gravel, mixed gravel, or sand (Government of Ontario, 2024). The Great Lakes-Upper St. Lawrence River population of Lake Sturgeon and its general habitat are protected under SARA and ESA due to their Endangered status. Transient populations may pass through the area when water temperatures are below 24°C (Environment and Climate Change Canada, 2018). As well, Common Snapping Turtle (listed as special concern) and Midland Painted Turtle (listed as special concern) have been recorded in the background information for the NNW site. Detailed field studies will be conducted to determine the occurrence and habitat use by SAR.

3.5 Social, Health, and Economic Contexts

Publicly available information to establish the social, health, and economic contexts for the region, including MS-WTFNs, local municipalities, and local urban-Indigenous populations are described in this section.

The social, health, and economic context of the MS-WTFNs embodies our unique realities which have been shaped by the intergenerational Knowledge and experiences of our people – our ways

of knowing and being – which are derived from our place. Our social, health, and economic context has been shaped by the ongoing interplay between historical legacies, contemporary challenges, and processes of cultural and political resurgence. Our communities have experienced the ongoing impacts of colonization, including land dispossession through the Williams Treaties, the imposition of Canadian sovereignty, the Indian Act, and systemic efforts to suppress our language and culture. These factors are exacerbated by societal apathy, racism, and discrimination. Access to our place (Lands, Waters and all Relatives) as well as our relationships with our Relatives are important drivers of our social and economic activities, as well as our physical, spiritual, and emotional health. These include our language, ceremony, harvesting, artistic and spiritual expression, intergenerational transfer of Knowledge, economic independence, identity, belonging, and wellbeing.

These experiences have contributed to persistent inequities in education, health, housing, and employment, which shape our social, economic, and health conditions today. At the same time, we are actively centring our values, language, and cultural traditions and practices. We are strengthening our governance capacity and investing in our youth and community wellbeing. Our social, health, and economic context is, therefore, best understood as a balance of challenges imposed by systemic inequities, and the strength of our communities to retain our identity, values, and ways of being, for the present, and future generations.

Identifying and understanding the socio-economic priorities of each MS-WTFN is important to assessing how opportunities in the Ontario energy sector could align with community-specific objectives. Identifying such priorities will require additional community engagement, and MS-WTFN-led studies and assessment. The following is a preliminary list of socio-economic priorities which have been identified by the MS-WTFNs for the purpose of this IPD:

- restoring balance to our Relatives and homelands, ensuring that our community members want to live, work, and raise families, within our communities, including through initiatives such as improving infrastructure, access to affordable housing, healthcare, employment, and jobs
- investing and supporting member and community led enterprises, such as, in-community businesses, clean energy projects, and cultural tourism, to foster ongoing pride in community, maintaining a strong sense of ownership, accomplishment, and connection, to our ways of knowing and being
- intergenerational economic sustainability for our communities, including, but not limited to, the creation of diversified economies, through investing in youth education, skills training, and capacity building

- conducting an IA that respects our ways of knowing and being, protects our health and wellbeing, upholds our decision-making authority and processes, and ensures that our Knowledge and values shape the IA process
- strengthening the health and connection of our communities to the Lands, Waters and all Relatives as a foundation for health, identity, and self-determination, including protecting harvesting areas, cultural landscapes, and places of cultural and spiritual significance
- enhancing our communities' health, wellbeing, and safety by ensuring the NNW Project is assessed, planned, and potentially developed, in a manner which upholds our culture, identity, Rights, Relatives, and responsibilities. This includes ensuring the NNW Project goes beyond minimizing real and potential adverse impacts and effects to the Lands, Waters, Relatives, Rights, and responsibilities, and instead, seeks to balance the region and benefit our communities
- ensuring our decision-making authority is upheld and applied to all activities that impact the Lands, Waters and all Relatives. This includes ensuring our communities are given a seat at the decision-making table, that our FPIC is sought, and achieved, UNDRIP is respected, and meaningful consultation (as defined by the MS-WTFNs) is realized
- ensuring the project benefits our communities, and create lasting value for our community members, through priority contracts and procurement policies for Rights-holding First Nations, community employment and training (for meaningful work), financial benefits and opportunities, community infrastructure developments and enhancements, and community wellbeing (such as support for cultural programs, conservation initiatives, land-based education, healing spaces and more)
- working with OPG and the Crown to advance reconciliation and heal past harms and trauma, resolve existing pressures and impacts, and building trust
- carrying out an inclusive process which considers our communities' most marginalized, and seeks to benefit all community members, now and in the future
- strengthening community cohesion, governance, and intergenerational Knowledge transfer
- enhancing access to ceremonial and harvesting areas and practices and creating space for strengthening our direct relationships with the Lands, Waters and all Relatives.

OPG will engage with Rights-holding First Nations and interested Indigenous communities identified in Section 1.4.1 ensuring that Gender-Based Analysis plus (GBA+) is applied throughout the process, to characterize social, health, and economic conditions, Indigenous Knowledge and/or other information to be defined by each Rights-holding First Nation and interested Indigenous community.

3.5.1 GBA+ Analysis

GBA+ “...goes beyond biological (sex) and socio-cultural (gender) differences to consider other factors, such as age, disability, education, ethnicity, economic status, geography (including rurality), language, race, religion, and sexual orientation” (Women and Gender Equality, 2023). Sections 3.5.2 to 3.5.4 provide some basic statistics regarding gender, age, immigration and visible minority status, Indigenous identity, income, housing tenure and educational attainment. Other diverse communities exist in the vicinity of the NNW site and will require further characterization as the NNW Project develops. OPG understands the importance of integrating GBA+ into IAs to ensure the benefits and impacts of the NNW Project are considered holistically and equally among affected individuals and groups. OPG will use GBA+ to identify inclusion strategies for plant construction and operation, develop better targeted engagement strategies, and to improve understanding of perspectives on nuclear facilities from diverse populations.

3.5.2 Social Context

While the broader regional municipal context is defined by demographic stability, modest population growth, and access to well-developed infrastructure and services, the MS-WTFNs are smaller, self-governing communities and our social realities are deeply shaped by our identity, values, spirituality and place. Comparing these two contexts highlights not only disparities in population size, housing, and educational outcomes, but also the strength, unity, and cultural cohesion that defines our communities and our presence in the region. This contrast provides a critical foundation for understanding how the NNW Project must be assessed, including through an MS-WTFNs-led Impact Assessment.

3.5.2.1 Demographics and Population Dynamics

As outlined below, the overall social context of the area is defined by relatively stable and moderately growing populations across Northumberland County, Durham Region, Kawartha Lakes, and Peterborough County. These jurisdictions collectively represent a mix of rural, semi-rural, and urbanized communities, with populations ranging from tens of thousands in smaller townships to several hundred thousand in Durham Region. Growth rates over the last census period have been steady, typically between 3% and 10%, driven in part by the region’s proximity to major transportation corridors such as Highway 401 and its appeal as a residential area for commuters working in the Greater Toronto Area. Populations are demographically balanced, in terms of gender, and reflect aging trends, consistent with much of rural Ontario, with average ages in the mid-to-late forties. Less than 5% of the population identifies as Indigenous, and the proportion of visible minorities and immigrants is significantly lower than in Ontario’s larger metropolitan regions.

In contrast, the social context of our communities reflects our much smaller community scales, with individual MS-WTFNs having on-reserve populations ranging from 125 (MSIFN) to over 1,200 (CLFN). Our communities are characterized by high proportions of Indigeneity (ranging from 61% to 80%) compared to the surrounding municipalities. Population growth is less uniform: AFN (+9.5%) and CLFN (+17.5%) have experienced significant increases, while HFN (-5.8%) and MSIFN (-4.6%) have experienced declines. The smaller scale of our communities means that relatively minor shifts in our on-reserve population can significantly impact social and economic planning. Despite these fluctuations, our communities report high rates of non-movers, often over 90%, which reflects strong place-based continuity rooted in our cultural ties, rather than patterns of residential stability tied to the housing market.

We have relatively young populations compared to the general Ontario and Canadian population. Higher proportions of children and youth in our communities create both challenges and opportunities. On one hand, rapid population growth places pressure on housing, community services, and education systems, creating immediate needs for infrastructure and resources. On the other hand, a youthful demographic base provides a strong foundation for cultural longevity, leadership development, and long-term community sustainability. Youth are at the center of our social and cultural fabric, including language learning, land-based education, and participation in governance processes. The active role of our young people ensures intergenerational transfer of Knowledge while preparing future leaders to carry forward our communities' priorities.

3.5.2.2 Housing and Infrastructure

Housing trends demonstrate one of the clearest distinctions between the two contexts. In surrounding municipalities, home ownership is the dominant tenure type, with 70–90% of households owning their homes and relatively few dwellings requiring major repairs. The housing market is largely shaped by regional commuting patterns, with average dwelling values exceeding \$600,000 and rising due to demand pressures from the GTA. Rental housing is limited but available, particularly in urban centres such as Cobourg, Port Hope, Lindsay, and Peterborough.

By contrast, our communities exhibit a more complex housing landscape. Home ownership rates vary widely, from 30% within MSIFN to over 80% within HFN, with a significant proportion of housing supplied directly by each MS-WTFN's government. For example, 50% of MSIFN households live in dwellings provided by their First Nation government, while CLFN and AFN also report notable proportions of First Nation government-provided housing. Housing conditions present a significant challenge, with 14–17% of homes in AFN, CLFN and HFN requiring major repairs, compared with very low repair needs in neighbouring municipalities. This indicates persistent infrastructure gaps with our communities and reflects the legacy of underfunding in on-reserve housing. Despite these challenges, our housing stability remains

high, as most residents remain in our communities over long periods, reinforcing cultural continuity and local governance stability.

Our communities continue to face housing shortages, overcrowding, and aging homes, all of which contribute to stress, family tensions, and health risks. Infrastructure limitations—such as insufficient access to clean water, wastewater treatment, broadband internet, and reliable transportation—further exacerbate social inequities. These challenges limit our communities’ access to employment, education, and healthcare, while also affecting our ability to host cultural gatherings and provide safe, healthy environments for families. Addressing these gaps is not only about physical structures but also about building strong social foundations that support our communities’ wellbeing, pride, and stability. Investments in housing and infrastructure are critical for sustaining growth within our communities and ensuring that our community members can live and thrive within our homelands and Treaty Territories.

3.5.2.3 Education and Language

As outlined within this section, educational attainment across the broader municipalities is relatively consistent, with just over half of the adult population holding post-secondary credentials, about a third completing high school, and 14–18% reporting no formal certificate or diploma. This profile aligns closely with provincial averages and reflects access to local colleges such as Fleming College, Loyalist College, and Durham College, as well as proximity to universities in Oshawa, Peterborough, and Toronto.

For the MS-WTFNs, education outcomes are more variable but reveal both strengths and challenges. Post-secondary attainment rates are relatively strong in AFN (46%), HFN (47%), and CLFN (44%). However, MSIFN reports only 25% of adults having post-secondary credentials, highlighting disparities in educational access and outcomes across the MS-WTFNs. Community-based educational infrastructure also differs between our communities: CLFN and HFN have their own daycare, and CLFN has its own primary school, while other MS-WTFNs rely more heavily on off-reserve schools, supported by targeted student services and financial assistance. Importantly, *Anishinaabemowin* maintains its presence, with 12–16% of residents at AFN and CLFN reporting knowledge of our language. Although day-to-day use is limited, these figures point to our ongoing efforts to maintain our language sovereignty and cultural pride, in contrast to the broader municipalities where Indigenous language presence is virtually absent.

We are addressing these gaps by creating culturally relevant curricula for our children, supporting language learning in schools, and promoting land-based education that connects students to their identity. Increasingly, our youth are pursuing post-secondary education and professional training, contributing skills that benefit both our communities and the broader economy.

3.5.2.4 Cultural Identity and Social Cohesion

Perhaps the most striking difference between the MS-WTFNs and the broader municipalities lies in cultural identity. The overall social context of the broader municipalities is defined by rural-urban dynamics and historical settlement patterns, with cultural markers tied primarily to settler heritage, tourism, and recreational amenities. Institutions such as heritage districts in Port Hope and Cobourg, theatre venues, and outdoor recreation trails serve as cultural anchors for the general population.

Our social context, however, is fundamentally rooted in our identity, values, responsibilities, laws, and ways of knowing and being. Each MS-WTFN maintains its own elected council, delivers health and social services through community-based centres, and sustains cultural and ceremonial practices. Our community facilities such as health centres, youth centres, and cultural programming not only address social needs but also reinforce our values and ways of life. Despite the impacts of colonization, and the impacts to and loss of free access to our homelands, we retain a distinctive social fabric where our identity, governance, and Relatives are deeply intertwined.

The contrast between the context of the MS-WTFNs with that of the broader municipalities highlights why a MS-WTFN-led Impact Assessment and accommodations are essential in ensuring that the NNW Project advances in a manner that is both socially responsible and culturally respectful. A MS-WTFNs-led characterization of the social context of each of our communities will be required should the IA processes moves forward.

For the purposes of the IPD, a MS-WTFNs-led assessment was not feasible, given the time constraints. As a stopgap measure, we asked OPG to include our communities within their Social Context section, and as such OPG has included a preliminary section for each MS-WTFN below (See Sections 3.5.2.5 – 3.5.2.8).

3.5.2.5 Alderville First Nation

AFN is a self-governing Michi Saagiig Anishinaabeg Nation located in south-central Ontario on the south side of Rice Lake, approximately 30 kilometres (km) north of Cobourg (Alderville First Nation, 2025). AFN is one of six First Nation communities that make up the Ogemawahj Tribal Council and one of the seven WTFNs. AFN elections are governed according to the Indian Act election system. Under this system, the AFN council consists of an elected chief and four councillors.

AFN has a library, a community centre including a gymnasium, provides student services such as after school programming, and offers health-related programs and services to community members through the Health & Social Services office (Alderville First Nation, 2025).

Table 10 provides information regarding some key social and demographic characteristics of AFN from the 2021 Census. AFN had an on-reserve population of 542. This marks a 9.5% increase in on-reserve population from 2016. Despite the population growth, the population overall consisted of non-movers (92.5%). In 2021, the average age on-reserve was approximately 46 years. The gender ratio of the on-reserve population was balanced; approximately half of the population identified as men+ and half identified as women+⁸⁸. The majority of the population identified as Indigenous. Half of households owned rather than rented their homes and 14.0% of homes required major repairs. Nearly half of the population aged 15 and over (45.7%) had successfully completed post-secondary education (Statistics Canada, 2023b).

Table 10: Key Social and Demographic Characteristics of Alderville First Nation^{89 90}

Indicator	Alderville First Nation
Land Area (km ²)	12.59
Population and Demographics	
Population (2021)	542
Population change (2016 -2021, %)	+9.5
Gender (%)	Men+ (50.9) Women+ (49.1)
Average age of the population	45.5
Population that identifies as First Nation, Métis or Inuit (%) ⁹¹	67.6
Immigrants (%)	Not applicable

3.5.2.6 Curve Lake First Nation

CLFN is a Michi Saagiig Anishinaabeg Nation located in southern Ontario, approximately 25 kilometres (km) northeast of Peterborough, Ontario (Curve Lake First Nation, 2025). CLFN is one of the seven WTFNs and is a member of the Anishinabek Nation and Assembly of First Nations. CLFN elections are governed according to the First Nations Elections Act election system. Under this system, CLFN council consists of an elected chief and eight councillors.

⁸⁸ The "+" denotes the inclusion of individuals who identify beyond traditional gender categories, encompassing non-binary, genderqueer, and gender-diverse persons within the respective group.

⁸⁹ Values may not total 100.0 percent in some cases due to random rounding carried out by Statistics Canada for confidentiality.

⁹⁰ Data are for 2021 unless noted otherwise.

⁹¹ It should be noted that Indigenous peoples often do not participate in censuses as frequently as non-Indigenous populations and therefore these statistics may not accurately represent the number of individuals living within the area who may identify as First Nation, Métis or Inuit.

CLFN has a day care centre, a primary school, cultural centre, and provides student services such as secondary school support, post-secondary assistance, and a special education program. CLFN also offers health-related programs and services to community members through the Curve Lake First Nation Health Centre (Curve Lake First Nation, 2025).

Table 11 provides information regarding some key social and demographic characteristics of CLFN from the 2021 Census. CLFN had an on-reserve population of 1,244. This marks a 17.5% increase in on-reserve population from 2016. The population overall consisted of non-movers, at 93%. In 2021, the average age on-reserve was approximately 44 years. The gender ratio of the on-reserve population was balanced, with approximately 49% of the population identifying as men+ and 51% identifying as women+. Approximately 64% of the population identified as Indigenous. The majority of households owned (80%) rather than rented (11%) their homes, and about 17% of homes required major repairs. Nearly half of the population aged 15 and over (44%) had successfully completed post-secondary education (Statistics Canada, 2023e).

Table 11: Key Social and Demographic Characteristics of Curve Lake First Nation^{92 93}

Indicator	Curve Lake First Nation
Land Area (km ²)	6.64
Population and Demographics	
Population (2021)	1,244
Population change (2016 -2021, %)	17.5
Gender (%)	Men+ (49.0) Women+ (51.0)
Average age of the population	43.7
Population that identifies as First Nation, Métis or Inuit (%) ⁹⁴	64.3
Immigrants (%)	Not applicable
Visible Minority (%) ⁹⁵	0.0
Total private dwellings (#)	650
Average Value of Dwelling (\$)	Not applicable
Average number of persons per household	2.3
Private households by tenure (%)	Owner (79.8) Renter (11.0)

⁹² Values may not total 100.0 percent in some cases due to random rounding carried out by Statistics Canada for confidentiality.

⁹³ Data are for 2021 unless noted otherwise.

⁹⁴ It should be noted that Indigenous peoples often do not participate in censuses as frequently as non-Indigenous populations and therefore these statistics may not accurately represent the number of individuals living within the area who may identify as First Nation, Métis or Inuit.

⁹⁵ This indicator has been included for consistency with other profiles in Section 3.5.2 but may not be appropriate for every community.

Indicator	Curve Lake First Nation
	Dwelling provided by local government, First Nation or Indian band (9.2)
Non-movers (%) – 1 years ago	93.1
Average number of children in census families with children	1.6
Occupied private dwellings requiring major repairs	95 (17.4%)
Educational Attainment	
Highest certificate, diploma or degree for the population aged 15 years and over (%)	None (23.9) High school (32.2) Post-secondary (43.9)
Indigenous language spoken at home (%)	9.2 [other language spoken regularly at home]
Language knowledge (Indigenous language)	205 (16.5%)

3.5.2.7 Hiawatha First Nation

HFN is a Michi Saagiig Anishinaabeg Nation located in southern Ontario along the northern shore of Rice Lake, approximately 30 kilometres south of Peterborough, Ontario (Hiawatha First Nation, 2025). HFN is one of the seven WTFNs and is a member of the Association of Iroquois and Allied Indians and the Assembly of First Nations. HFN elections are governed according to the Indian Act elections system. Under this system, HFN council consists of an elected chief and five councillors.

HFN has the L.I.F.E Services Centre, which houses the community's health and social programs. The social programs include the childcare centre, elders room, and a gymnasium. Family health-related programs and social services are also available, such as wellness, cultural services, and child and family services, through the L.I.F.E Services Centre. HFN does not have educational infrastructure but provides counselling services and financial assistance to the community's secondary and post-secondary students (Hiawatha First Nation, 2025).

Table 12 provides information regarding some key social and demographic characteristics of HFN from the 2021 Census. HFN had an on-reserve population of 341. This marks an approximate 6% decrease in on-reserve population from 2016. The population overall consisted of non-movers, at 90%. In 2021, the average age on-reserve was approximately 48 years. The gender ratio of the on-reserve population was slightly skewed towards those identifying as women+ (54%) compared to those identifying as men+ (47%). Approximately 61% of the population identified as Indigenous. The majority of households owned (84%) rather than rented (7%) their homes, and about 16% of homes required major repairs. Nearly half of the

population aged 15 and over (47%) had successfully completed post-secondary education (Statistics Canada, 2023f).

Table 12: Key Social and Demographic Characteristics of Hiawatha First Nation^{96 97}

Indicator	Hiawatha First Nation
Land Area (km ²)	8.93
Population and Demographics	
Population (2021)	341
Population change (2016 -2021, %)	-5.8
Gender (%)	Men+ (47.1) Women+ (54.4)
Average age of the population	48.4
Population that identifies as First Nation, Métis or Inuit (%) ⁹⁸	61.2
Immigrants (%)	Not applicable
Visible Minority (%) ⁹⁹	0.0
Total private dwellings (#)	210
Average Value of Dwelling (\$)	Not applicable
Average number of persons per household	2.2
Private households by tenure (%)	Owner (83.9) Renter (6.5) Dwelling provided by local government, First Nation or Indian band (9.7)
Non-movers (%) – 1 years ago	89.6
Average number of children in census families with children	1.5
Occupied private dwellings requiring major repairs	25 (16.1%)
Educational Attainment	
Highest certificate, diploma or degree for the population aged 15 years and over (%)	None (23.3) High school (30.0) Post-secondary (46.7)
Indigenous language spoken at home (%)	1.4 ¹⁰⁰

⁹⁶ Values may not total 100.0 percent in some cases due to random rounding carried out by Statistics Canada for confidentiality.

⁹⁷ Data are for 2021 unless noted otherwise.

⁹⁸ It should be noted that Indigenous peoples often do not participate in censuses as frequently as non-Indigenous populations and therefore these statistics may not accurately represent the number of individuals living within the area who may identify as First Nation, Métis or Inuit.

⁹⁹ This indicator has been included for consistency with other profiles in Section 3.5.2 but may not be appropriate for every community.

¹⁰⁰ Other language spoken regularly at home.

Indicator	Hiawatha First Nation
Language knowledge (Indigenous language)	10 (3.0%)

3.5.2.8 Mississaugas of Scugog Island First Nation

MSIFN is a Michi Saagiig Anishinaabeg Nation located in southern Ontario on Lake Scugog, approximately 15 kilometres (km) northeast from Scugog, Ontario (Government of Canada, 2025). MSIFN is one of the seven WTFNs and is a member of the Ogemawahj Tribal Council, Anishinabek Nation, and Assembly of First Nations. MSIFN elections are governed according to a custom electoral system. Under this system, MSIFN council consists of an elected chief and four councillors.

MSIFN has a library, a community youth centre, and provides support and assistance to students attending secondary and post-secondary education. MSIFN also offers health-related programs and services to community members through the MSIFN Health and Resource Centre (Mississaugas of Scugog Island First Nation, 2025).

Table 13 provides information regarding some key social and demographic characteristics of MSIFN from the 2021 Census. MSIFN had an on-reserve population of 125. This marks an approximate 4.6% decrease in on-reserve population from 2016. The population consists of non-movers, at 100%. In 2021, the average age on-reserve was approximately 34 years. The gender ratio of the on-reserve population was slightly skewed towards those identifying as men+ (56%) compared to those identifying as women+ (44%). Approximately 80% of the population identified as Indigenous. Half of households on-reserve lived in dwellings provided by the First Nation (50%), other households owned (30%) or rented (20%) their homes. None of the homes were identified as requiring major repairs. A quarter of the population aged 15 and over (25%) had successfully completed post-secondary education (Statistics Canada, 2023g).

Table 13: Key Social and Demographic Characteristics of Mississaugas of Scugog Island First Nation^{101,102}

Indicator	Mississaugas of Scugog Island First Nation
Land Area (km ²)	2.57
Population and Demographics	
Population (2021)	125
Population change (2016 -2021, %)	-4.6
Gender (%)	Men+ (56.0) Women+ (44.0)

¹⁰¹ Values may not total 100.0 percent in some cases due to random rounding carried out by Statistics Canada for confidentiality

¹⁰² Data are for 2021 unless noted otherwise.

Indicator	Mississaugas of Scugog Island First Nation
Average age of the population	34.0
Population that identifies as First Nation, Métis or Inuit (%) ¹⁰³	80.0
Immigrants (%)	Not applicable
Visible Minority (%) ¹⁰⁴	0.0
Total private dwellings (#)	51
Average Value of Dwelling (\$)	Not applicable
Average number of persons per household	2.6
Private households by tenure (%)	Owner (30.0) Renter (20.0) Dwelling provided by local government, First Nation or Indian band (50.0)
Non-movers (%) – 1 years ago	100.0
Average number of children in census families with children	2.1
Occupied private dwellings requiring major repairs	0 (0.0%)
Educational Attainment	
Highest certificate, diploma or degree for the population aged 15 years and over (%)	None (25.0) High school (45.0) Post-secondary (25.0)
Indigenous language spoken at home (%)	0.0 ¹⁰⁵
Language knowledge (Indigenous language)	10 (8.0%)

3.5.2.9 Northumberland County and Municipality of Port Hope

The NNW site is situated within the homelands and treaty territories of the MS-WTFNs, and is proposed on lands covered by pre-Confederation Treaties, the Williams Treaties of 1923 and the Williams Treaties First Nations Settlement Agreement of 2018. The NNW site is located in present-day Municipality of Port Hope, approximately 6 km west of the urban centre of Port Hope, 17 km west of the Town of Cobourg and immediately south of Wesleyville Village within Northumberland County. The County is an upper-tier municipality (having two or more lower-tier municipalities form part of the municipality) situated on the north shore of Lake Ontario.

¹⁰³ It should be noted that Indigenous peoples often do not participate in censuses as frequently as non-Indigenous populations and therefore these statistics may not accurately represent the number of individuals living within the area who may identify as First Nation, Métis or Inuit.

¹⁰⁴ This indicator has been included for consistency with other profiles in Section 3.5.2 but may not be appropriate for every community.

¹⁰⁵ Other language spoken regularly at home.

The Northumberland County consists of seven municipalities with its headquarters located in the Town of Cobourg (Figure 11 shows these municipal boundaries).

The area now known as Northumberland County, including the Port Hope area, has been part of our homelands since *me'wzha*. The shoreline of *Gchi Nibi* and its tributaries, including those within the NNW site, are part of our summering grounds, and remain central to our identity as the Salmon People, the People of the Big River Mouths, and the Shoreline People (Williams-ban, 2018).¹⁰⁶ Our ways of knowing and being are place-based and derived from our lived intergenerational experiences with our place.

Our memories, stories, and oral accounts, as well as archival, archaeological, and ecological evidence, attest to the presence of our people both around, and within, the NNW site, since *me'wzha*. Our *Aanikoobigiganaanan* migrated seasonally between our wintering grounds, which surrounded the inner lakes (e.g. Chemong, Pigeon, Balsam, Rice Lakes), and our summering grounds, which are along the north shore of *Gchi Nibi*. We would gather seasonally along the shorelines of *Gchi Nibi*, and its tributaries, congregating near river and creek mouths to fish, visit the wetlands to cultivate and harvest *manoomin* and other medicines, and cultivate our *mishkode* to attract wildlife and harvest medicines. We would gather at points (peninsulas) to hold ceremony, visit and care for our *Aanikoobigiganaanan*, and to gather and share our Knowledge, and the guidance, wisdom, and instructions, gifted to us, by our human and non-human Being Relatives. Our summering grounds were an integral part of our social life.¹⁰⁷

The centrality of the mouth of the Ganaraska River, and the north-shore of *Gchi Nibi* to our people, to our society, to our economy, and to our ways of life were notable to the Crown and many early settlers. For example, British officials chose Port Hope as an area to meet with *Michi Saagiig Anishinaabeg* leadership; It was here that pre-Confederation Treaties, including Treaty 20 of 1818 was negotiated (Muskrat Simpson, 1953). Indeed, Port Hope's early history was shaped by our already established economies. Peter Smith (often considered the first European settler of Port Hope) established his trading post within our village of *Pametashwetiang*¹⁰⁸ (The Port Hope Evening Guide, 1894) (Reeve, 1967). His trading post, and the harbour at the mouth of the Ganaraska (near our village), went on to be considered the most successful port between Kingston and Queenston in the late 18th and early 19th centuries (The Port Hope Evening Guide, 1894). The Ganaraska River, and its corresponding portage – the Rice Lake Carrying Place – was an established transportation and trade route of our people, connecting our inner lakes with *Gchi*

¹⁰⁶ This paragraph has been informed by Knowledge shared by *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban), including from *Michi Saagiig Anishinaabeg Background-Historical Context* which he authored for CLFN in 2017, as well as recorded in an undated interview, provided by CLFN for the purposes of informing this IPD.

¹⁰⁷ This paragraph has been informed by Knowledge shared by Tracey Taylor, Cultural Administrator at CLFN, Donovan Taylor, Cultural Preservation Manager at CLFN.

¹⁰⁸ See footnote 55.

Nibi, as well as supporting a larger route connecting Lake Ontario and Georgian Bay. During the 18th and 19th centuries, European settlers understood the significance of our transportation and trade routes to the successful establishment of their colonies and later, Canada. Early settlers made use of our already established routes to build roads, rail roads, and other means of transportation which supported their economies (Guillet, 1933). For example, Lakeshore Road, which bisects the NNW site, was one of the first roads established in Upper Canada and followed an already existing trail, utilized by our Relatives and *Aanikoobigiganaanan* (Barrowclough, 1960) (Leetooze, 1997).

Ultimately, our people were pushed out of the area by European settlers and Loyalists throughout the 19th century, as settler populations rapidly grew, and development and industry ravished our cultural landscapes, transportation routes, economies, and our Relatives. Despite colonial laws, policies, oppression, racism, and discrimination, the MS-WTFNs and our community members continue to be present, maintain our relationships with our Relatives, and practice cultural and spiritual activities throughout Northumberland County.

Northumberland County is located along Highway 401, within an hour and a half drive from both the City of Toronto to the west, and the City of Kingston to the east. Its northern portion is traversed by the Oak Ridges Moraine and the Trent-Severn Waterway. It is characterized primarily by rural and agricultural land uses punctuated with urban settlements located along the Highway 401 corridor. More recently, Northumberland County has hosted much agriculture with historic towns, scenic rural and waterfront areas. Northumberland County has various cycling, hiking and other outdoor trails, health spas and agricultural retreats.

The larger urban centres of Port Hope and Cobourg within Northumberland County are its main residential, commercial and industrial hubs where most of the future growth in the area is planned to occur. Both Port Hope and Cobourg have numerous community facilities and services including major health facilities, supporting health organizations and several elementary and secondary schools.

Northumberland County, Port Hope, and Cobourg are served by the Kawartha Pine Ridge District School Board and the Peterborough Victoria Northumberland and Clarington Catholic District School Board. Loyalist College has a campus in Port Hope offering manufacturing workforce development programs through the Loyalist Training and Knowledge Centre. Fleming College (formerly Sir Sandford Fleming College) is a multidisciplinary institution with two primary campuses in the area, in Cobourg and Peterborough. Fleming College offers a variety of technical programs at the campus in Cobourg.

Tourism and recreation are important activities in both Port Hope and Cobourg. Tourists visit Port Hope for specialty shopping, attending events at venues such as the Capitol Theatre, and to view the historic architecture. Downtown Cobourg has a large heritage district that is home to a variety of shops and services for residents and tourists. Cobourg is home to the Cobourg Marina, a yacht club and beach. In addition, the Ganaraska River in Port Hope, and Lake Ontario are popular destinations for sport fishing.

The developed urban area of the Municipality of Port Hope and the largely rural and agricultural area to the west in the former Township of Hope including the residential hamlet of Welcome, north of Highway 401 and the historic Wesleyville village along Lakeshore Road immediately adjacent to the NNW site. The character of the Municipality of Port Hope has been described as having an urban area with a distinctive, small town, 19th Century character of fine Victorian architecture and tree-lined streets and a rural area with its open spaces, woodlands and varied terrain. Elements of the natural environment that contribute to the character of this community are the Ganaraska watershed, the Ganaraska River, and the Ganaraska Forest in addition to the shoreline of Lake Ontario and the Waterfront Trail along the shoreline. This trail traverses along Lakeshore Road adjacent to the NNW site.

Wesleyville Village is a 19th century village, situated near previous seasonal settlement areas and annual gathering places of the Michi Saagiig Anishinaabeg. The village is under restoration by the organization Friends of Wesleyville Village with the support of the Ontario Trillium Foundation and others. Ontario Hydro bought several properties in the village and surrounding farms in the late 1960s to build the Wesleyville oil-fired power plant that ultimately was not commissioned. While several structures were removed, the core of the village remained, including the 1860 church, the 1899 one-room schoolhouse, and the Y-shaped house located on a lot beside the church, known as the Oughtred house.

Table 14 provides information regarding some key social and demographic characteristics of Northumberland County, the Municipality of Port Hope, the Town of Cobourg and the Township of Hamilton from the most recent 2021 Census. In general, the populations of these communities have grown between 1% and 5.6% since 2016. Their populations are comprised of a relatively even mix of men+ and women+; typically, less than 5% being visible minorities or persons of Indigenous identity¹⁰⁹. Despite the growing populations, the communities are considered relatively stable with a substantial proportion of the population being non-

¹⁰⁹ It should be noted that Indigenous peoples often do not participate in censuses as frequently as non-Indigenous populations and therefore these statistics may not accurately represent the number of individuals living within the area who may identify as First Nation, Métis or Inuit.

movers¹¹⁰. The vast majority of homes are owned rather than rented, suggesting that rental accommodations are scarce. Educational attainment is similar across all four jurisdictions.

¹¹⁰ Non-movers includes persons who lived in the same residence on the reference day as on the same date one year earlier.

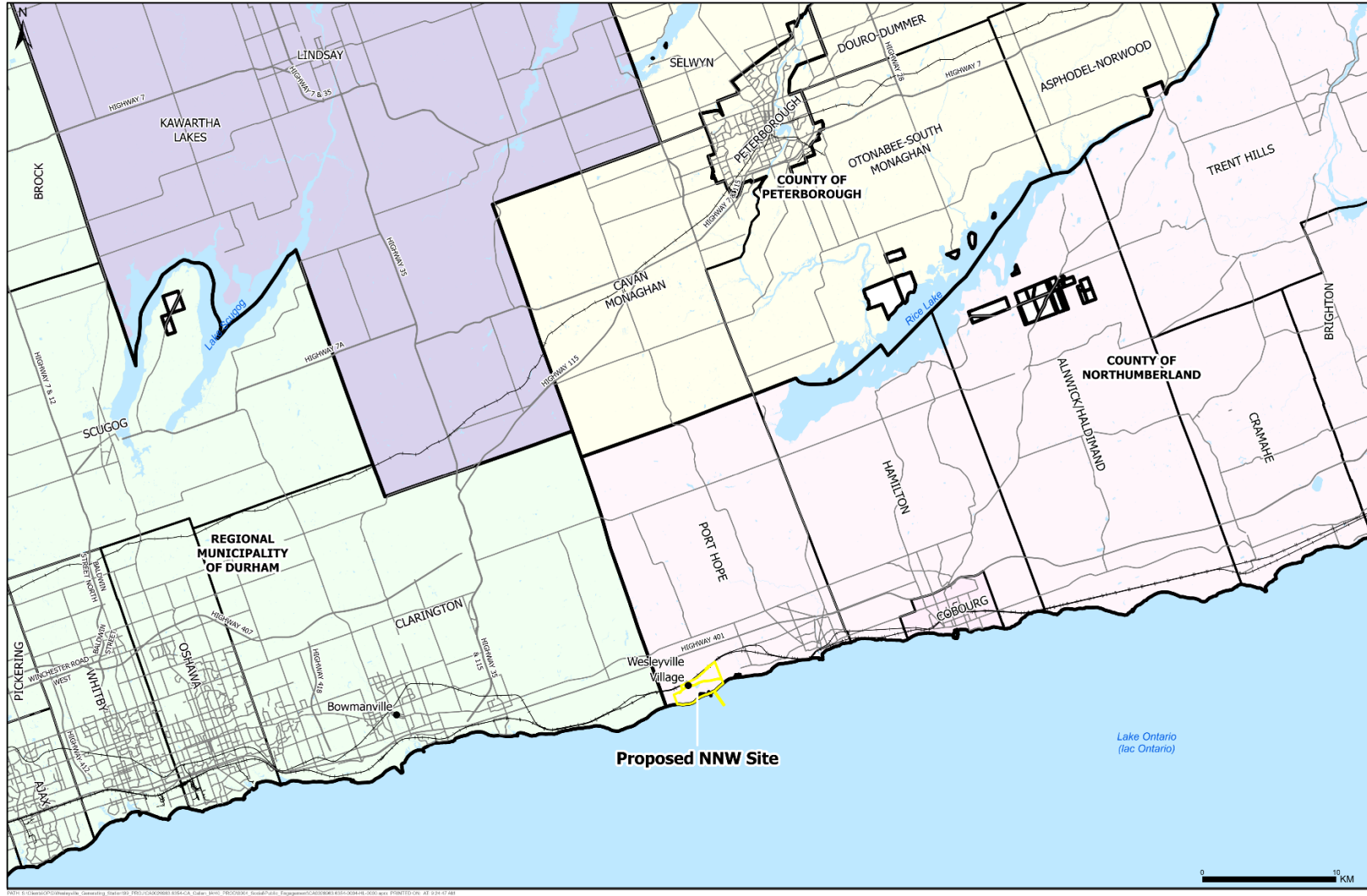


Figure 11: Regional Municipal Boundaries

Table 14: Key Social and Demographic Characteristics of Northumberland County and Selected Municipalities East of the NNW site ¹¹¹

Indicator	Northumberland County	Municipality of Port Hope	Town of Cobourg	Township of Hamilton
Land Area (km ²)	1,907.4	278.8	22.41	256.03
Population and Demographics				
Population (2021)	89,365	17,291	20,519	11,059
Population change (2016 -2021, %)	+4.4	+3.2	+5.6	+1.1
Gender (%)	Men+ (48.8) Women+ (52.2)	Men+ (48.3) Women+ (51.6)	Men+ (46.4) Women+ (53.6)	Men+ (50.3) Women+ (49.7)
Average age of the population	48.1	47.4	49.9	54.4
Population who identifies as First Nation, Métis or Inuit (%) ¹¹²	3.5	2.6	2.7	2.6
Immigrants (%)	10.6	10.2	12.9	8.9
Visible Minority (%)	4.5	4.5	5.0	3.5
Dwelling and Household Characteristics				
Total private dwellings (#)	40,638	7,607	9,520	5,685
Average Value of Dwelling (\$)	623,500	669,000	616,500	707,000
Average number of persons per household	2.3	2.3	2.2	2.6
Private households by tenure (%)	Owner (80.8) Renter (19.0) Other (0.2)	Owner (78.3) Renter (21.7) Other (0)	Owner (68.7) Renter (31.3) Other (0)	Owner (93.9) Renter (6.2) Other (0)

¹¹¹ Information in this table was provided from census data (Statistics Canada, 2025)

¹¹² It should be noted that Indigenous peoples often do not participate in censuses as frequently as non-Indigenous populations and therefore these statistics may not accurately represent the number of individuals living within the area who may identify as First Nation, Métis or Inuit.

Indicator	Northumberland County	Municipality of Port Hope	Town of Cobourg	Township of Hamilton
Non-movers (%) – 1 years ago	63.3	88.7	87.8	93.2
Average number of children in census families with children	1.7	1.6	1.7	1.7
Educational Attainment				
Highest certificate, diploma or degree for the population aged 15 years and over (%)	None (15.7) Highschool (32.3) Post Secondary (52.1)	None (14.1) Highschool (33.3) Post Secondary (52.6)	None (14.7) Highschool (32.2) Post Secondary (53.1)	None (13.9) Highschool (29.3) Post Secondary (55.3)

3.5.2.10 Regional Municipality of Durham

The border of the Regional Municipality of Durham (Durham Region) is located less than 1 km west of the NNW site. Durham Region is an upper-tier Municipality situated on the north shore of Lake Ontario, and is part of the homelands and treaty territories of the MS-WTFNs¹¹³.

Durham Region spans from the City of Toronto on the west and Northumberland County on the east. The Region consists of eight municipalities with its headquarters located in the City of Oshawa. Within Durham Region, the Municipality of Clarington is located adjacent to Northumberland County.

Within Durham Region, the Town of Bowmanville provides the Municipality of Clarington with a downtown core and main street, with its mix of commercial, industrial and institutional land uses. Other urbanized neighbourhoods/communities in the Municipality of Clarington are Newcastle, Orono and Courtice. The character of these communities is defined by residential housing developments and the prominent industrial land user such as the Darlington Nuclear

¹¹³ While much of the social context of the MS-WTFNs described in the Northumberland County and Municipality of Port Hope section is relevant to Durham Region, it does not contemplate a full account of our specific social context within Durham Region, including, but not limited to those cultural landscapes, aspects of our identity, society, economies, or other aspects of our social context, found within the Region of Durham. For the purposes of this IPD, we have limited our input to specifically focus on the Port Hope and Wesleyville areas. We may choose to provide additional context as the IA progresses, as well as through our MS-WTFNs-led Impact Assessment.

site and the St. Marys Cement (Canada) Inc. operations along the Lake Ontario shoreline approximately 23 km west of the NNW site.

Residents of Durham Region are served by seven hospitals and a wide range of health care providers. The Oshawa and Bowmanville Hospitals are full-service community facilities. The Oshawa hospital is also home to the world-class R.S. McLaughlin Durham Regional Cancer Centre. Durham Region continues to support the work of the Durham Nuclear Health Committee (DNHC) that acts as a forum for primarily discussing and addressing radiological emissions from nuclear facilities in Durham Region, to assess the potential environmental human health impacts.

Durham Region is also home to major post-secondary institutions, including Durham College of Applied Arts and Technology, Ontario Tech University (formerly the University of Ontario Institute of Technology), Trent University (Durham and GTA Campus), and Trillium College. Undergraduate students interested in specializing in energy or nuclear-related programs continue to have access to a specialized degree in Nuclear Engineering offered through the University Network of Excellence in Nuclear Engineering (UNENE) and nuclear related programs at Ontario Tech University.

Overall, Northumberland County and Durham Region can be characterized as having a reasonably healthy balance of community assets in terms of municipal infrastructure, health and safety services, educational and training institutions, social services and a healthy environment. These ingredients of sustainable development are continually being upgraded to match population growth and demands for housing, municipal infrastructure and a wide variety of services.

Table 15 provides information regarding some key social and demographic characteristics of the Durham Region and the Municipality of Clarington. In general, the populations of these communities have grown between 7.9% and 10.2% since 2016. Their populations are comprised of a relatively even mix of men+ and women+; visible minorities and immigrants make up a larger proportion of the regional population compared with that in Clarington, while the proportion of persons of Indigenous identity are similar. Despite the growing populations, the communities are considered relatively stable with the vast majority of the population being non-movers. The vast majority of homes are owned rather than rented, suggesting that rental accommodations are scarce. The rental housing stock is lower in Clarington than that across Durham Region. Educational attainment in Clarington is similar to that of Durham Region as a whole.

Table 15: Key Social and Demographic Characteristics of Selected Municipalities West of the NNW site¹¹⁴

Indicator	Durham Region	Municipality of Clarington
Land Area (km ²)	2,521.11	610.85
Population and Demographics		
Population (2021)	696,992	101,427
Population change (2016 - 2021, %)	+7.9	+10.2
Gender (%)	Men+ (48.8) Women+ (51.2)	Men+ (49.1) Women+ (50.9)
Average age of the population	40.2	39.6
Population who identifies as First Nation, Métis, or Inuit (%) ¹¹⁵	2.0	2.6
Immigrants (%)	27.0	15.2
Visible Minority (%)	36.3	16.5
Dwelling and Household Characteristics		
Total private dwellings (#)	250,559	36,852
Average Value of Dwelling (\$)	833,000	772,000
Average numbers of persons per household	2.8	2.8
Private households by tenure (%)	Owner (78.6) Renter (21.4) Other (0)	Owner (85.7) Renter (14.3) Other (0)
Non-movers (%) – 1 year ago	89.7	90.0
Average number of children in census families with children	1.8	1.8
Educational Attainment		
Highest certificate, diploma or degree for the population aged 15 years and over (%)	None (14.0) Highschool (29.3) Post Secondary (56.6)	None (13.5) Highschool (29.3) Post Secondary (57.2)

¹¹⁴ Information in this table was provided from census data (Statistics Canada, 2025)

¹¹⁵ It should be noted that Indigenous peoples often do not participate in censuses as frequently as non-Indigenous populations and therefore these statistics may not accurately represent the number of individuals living within the area who may identify as First Nation, Métis or Inuit.

3.5.2.11 Peterborough County and the City of Kawartha Lakes

North of the Northumberland County and Durham Region are the City of Kawartha Lakes and Peterborough County, with their urban centres of Town of Lindsay and the City of Peterborough, respectively. Peterborough County and the City of Kawartha Lakes are part of the homelands and treaty territories of the MS-WTFNs¹¹⁶. The City of Kawartha Lakes is a municipality legally structured as a single-tier city; however, Kawartha Lakes is the size of a typical Ontario county and is mostly rural. The city is known as a tourist and cottaging area with numerous lakes and four-season outdoor activities. There are numerous hotels, motels, lodges, and bed and breakfasts (B&Bs) to serve visitors. The Trent-Severn Waterway is the major waterway in City of Kawartha Lakes and operated by Parks Canada.

The Town of Lindsay is a community of 22,367 people located on the Scugog River within the City of Kawartha Lakes region. It is the seat of the City of Kawartha Lakes and the urban hub in the region. Lindsay has experienced a high rate of population growth over the past several decades and approximately 6% since 2016. The Ontario Ministry of Community Safety and Correctional Services operates the Central East Correctional Centre in Lindsay. The Ross Memorial Hospital serves both local residents and seasonal visitors with emergency, surgery, dialysis, mental health and seniors' care. The community is served by the Trillium Lakelands District School Board along with the Peterborough Victoria Northumberland and Clarington Catholic District School Board offering elementary and secondary programs. Fleming College (formerly Sir Sandford Fleming College) is a multi-disciplinary post-secondary institution with its campuses within Lindsay.

Peterborough County is an upper-tier municipality comprised of eight lower-tier municipalities, offering a full variety of services for residents and property owners. It has a population of 147,681 (2021) and has experienced 6.8% in growth since 2016. The southern portion of the county is a mix of agriculture, urban and lakefront properties, while the northern portion is mostly sparsely populated wilderness. Like its neighbour to the west, the county is best-known as a cottaging area, with numerous lakes and four-season outdoor activities.

The City of Peterborough is the primary urban centre within the County with a population of 83,651 (2021), experiencing 3.2% growth since 2016. Peterborough is business and service hub

¹¹⁶ While much of the social context of the MS-WTFNs described in the Northumberland County and Municipality of Port Hope section is relevant to Peterborough County and the City of Kawartha Lakes, it does not contemplate a full account of our specific social context within Peterborough County and City of Kawartha Lakes, including, but not limited to, those cultural landscapes, aspects of our identity, society, economies, or other aspects of social context, found within these areas. For the purposes of this IPD, we have limited our input to specifically focus on the Port Hope and Wesleyville areas. We may choose to provide additional context as the IA progresses, as well as through our MS-WTFNs-led Impact Assessment.

of the County and a shopping destination for the region, with three shopping centres. Peterborough Regional Health Centre (PRHC) is a regional hospital delivering acute healthcare to the city and the County. The community is served by the Kawartha Pine Ridge District School Board, the Peterborough Victoria Northumberland and Clarington Catholic District School Boards offering elementary and secondary programs. Trent University and Fleming College (formerly Sir Sandford Fleming College) are multidisciplinary post-secondary institutions with campuses within the city.

Table 16 provides information regarding some key social and demographic characteristics of the City of Kawartha Lakes and Peterborough County, along with their urban hubs of the Town of Lindsay and the City of Peterborough. In general, the populations of these communities have grown between 3.2% (City of Peterborough) and 8% (Town of Lindsay) since 2016. Their populations are comprised of a relatively even mix of men+ and women+; typically, less than 10% being immigrant or visible minorities and less than 5% being persons of Indigenous identity. In comparison to the other communities described above, these four communities have a lower proportion of the population being non-movers, indicating a more mobile population. Most homes are owned rather than rented, with rental tenures being greater in the urban centers of Lindsay and Peterborough. While educational attainment is similar across all four jurisdictions, Peterborough County and the City of Peterborough have a slightly higher proportion of people with post-secondary degrees or diplomas than the City of Kawartha Lakes and Town of Lindsay.

Table 16: Key Social and Demographic Characteristics of Selected Municipalities North of the NNW site¹¹⁷

Indicator	City of Kawartha Lakes	Town of Lindsay	Peterborough County	City of Peterborough
Land Area (km ²)	3,033.66	15.57	3,779.47	64.76
Population and Demographics				
Population (2021)	79,247	22,367	147,681	83,651
Population change (2016 -2021, %)	+5.1	+8.0	+6.8	+3.2
Gender (%)	Men+ (47.4) Women+ (49.7)	Men+ (49.3) Women+ (50.7)	Men+ (46.4) Women+ (53.6)	Men+ (50.3) Women+ (49.7)

¹¹⁷ Information in this table was provided from census data (Statistics Canada, 2025)

Indicator	City of Kawartha Lakes	Town of Lindsay	Peterborough County	City of Peterborough
Average age of the population	47.4	47.3	45.2	44.1
Population who identifies as First Nation, Métis, or Inuit (%) ¹¹⁸	2.9	2.6	4.9	5.0
Immigrants (%)	7.9	8.0	8.7	9.7
Visible Minority (%)	3.4	4.9	6.6	9.4
Dwelling and Household Characteristics				
Total private dwellings (#)	38,947	10,300	73,045	38,006
Average Value of Dwelling (\$)	626,500	527,000	622,500	553,500
Average number of persons per household	2.4	2.2	2.4	2.3
Private households by tenure (%)	Owner (82.8) Renter (17.2) Other (0)	Owner (66.5) Renter (33.5) Other (0)	Owner (72.4) Renter (27.5) Other (0.1)	Owner (59.4) Renter (40.6) Other (0)
Non-movers (%) – 1 years ago	67.0	61.6	62.4	59.8
Average number of children in census families with children	1.7	1.7	1.7	1.7
Educational Attainment				
Highest certificate, diploma or degree for the population aged 15 years and over (%)	None (17.5) Highschool (33.6) Post Secondary (49.0)	None (19.9) Highschool (33.8) Post Secondary (46.3)	None (15.0) Highschool (30.3) Post Secondary (54.7)	None (15.0) Highschool (30.8) Post Secondary (54.2)

¹¹⁸ It should be noted that Indigenous peoples often do not participate in censuses as frequently as non-Indigenous populations and therefore these statistics may not accurately represent the number of individuals living within the area who may identify as First Nation, Métis or Inuit.

Overall, Kawartha Lakes and Peterborough County, along with their urban hubs of the Town of Lindsay and the City of Peterborough can be characterized as having a reasonably healthy balance of community assets in terms of municipal infrastructure, health and safety services, educational and training institutions, social services and a healthy environment.

3.5.3 Health Context

3.5.3.1 Health & Wellbeing Context of the MS-WTFNs

Our concept of health and wellbeing is inseparable from our relationships with, and free and unfettered access to our homelands (Lands, Waters and all Relatives); We depend on our Relatives not only for our physical survival, but also for our identity, our ways of knowing and being, and our ways of life. We understand our health and wellbeing in ways which are broader and more holistic than typical western concepts. For us, health encompasses our physical, emotional, spiritual, and mental wellbeing. Aspects of our health are intrinsically connected to our homelands, our place, and the wellbeing of our Relatives. Our sense of wellbeing includes our identities, our relationships to each other, and our relationships to the Lands, Waters and all Relatives; It includes our ability to live out our responsibilities, our spirituality, and our ways of life. It is informed by our language, our communities, our families, our spirit, and our sense of belonging to place. It includes one's overall perception of safety, and the ability to freely express and voluntarily participate in all facets of society, culture, spirituality, and economy, as well as living in alignment with one's ethics.

The health and wellbeing of our communities have been impacted by colonization. These impacts have included, but are not limited to, disruption to our ability to exercise our Right to self-determination, disruptions to our cultural, spiritual, and societal practices through historic and ongoing colonial policies, and the imposition and primacy of the Canadian Euro-Centric way of life. As we are part of our place, we remain disproportionately affected by disruptions to our direct relationships with our homelands, our cultural landscapes, and our Relatives.

Development, climate change, and the imposition of Crown and private ownership of Lands and shorelines, render our cultural landscapes and places of spiritual and cultural significance, inaccessible, severely altered, or destroyed. Disruptions to access, whether through industrial development, environmental contamination, or regulatory barriers, have significant health and wellbeing consequences for our communities.

Our ability to move freely across our homelands fosters a sense of rootedness and belonging, which contributes to our mental health and resilience, especially in the face of historical and ongoing colonial pressures which have disrupted our ability to freely access the Lands, Waters and all Relatives. Access to the natural environment, cultural and spiritual landscapes and places

of significance, and direct and indirect relationships with our Relatives are important drivers of our social and economic activities and our physical, spiritual, and emotional health. Free and unfettered access to our homelands allows our communities to retain their relationships and connections to the Lands, Waters and all Relatives which supports our health and wellbeing through activities such as, but not limited to:

- harvesting, which provides nutrient-rich traditional foods and medicines that support our physical and mental health;
- carrying out our responsibilities and being able to engage in our *nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad*, which strengthens our emotional and spiritual wellbeing, through activities such as, but not limited to:
 - practicing our ceremonies, seasonal traditions and customs;
 - gathering and sharing Knowledge, storytelling, and artistic expression;
 - partaking in our traditional and modern economies and ingenuity.

Our harvesting practices are fundamental to maintaining our physical health. Access to our traditional foods provides nutrient-rich, locally sourced sustenance, which supports balanced diets and reduces our dependence on processed store-bought foods. These practices also encourage physical activity, as harvesting requires connection with, as well as movement across our Lands and Waters, which contributes to overall fitness and wellbeing. The exercise, fresh air, and connection with our Relatives, associated with harvesting are integral to maintaining strong bodies, well minds, and preventing lifestyle-related illnesses, reinforcing the inextricable link between our Relatives and our health.

Our harvesting practices are deeply embedded within our ways of life. Engaging in these practices allows our community members to participate in ceremonies, storytelling, and other cultural and spiritual customs that honour our responsibilities to the Lands, Waters and all Relatives. Respectful harvesting is guided by spiritual and ethical principles, reinforcing values of reciprocity, gratitude, and care. These practices strengthen our cultural identity, emotional resilience, and spiritual wellbeing, creating a sense of continuity with *Aanikoobigiganaanan* and within our communities. The ability to harvest freely, according to our responsibilities, fosters pride, self-determination, and mental wellbeing, all of which are essential components of holistic health.

Our harvesting practices include opportunities to gather and transfer Knowledge and skills between generations. Elders and Knowledge holders teach younger community members how to identify plants, track wildlife, and fish sustainably, ensuring both ecological sustainability and the perpetuation of our cultural and spiritual practices and teachings. This intergenerational learning strengthens social cohesion, reinforces community identity, and promotes emotional and

mental wellbeing. It also enables younger members to develop respect for, and an understanding of our responsibilities to the Lands, Waters and all Relatives, which is critical for long-term community resilience and health.

The recognition and exercise of our Rights to harvest provides a sense of autonomy and empowerment that directly impacts the mental and social health of our communities. Being able to harvest according to our cultural practices without restriction affirms our sovereignty and reinforces our collective agency, reducing stress and the sense of marginalization often associated with restricted access to our homelands and Treaty Territories.

Our principle of *Mino Bimaadiziwin* – our system of ethics – is connected to our health and wellbeing, and the health and wellbeing of the Lands, Waters and all Relatives. It includes concepts of the proper way that humans should treat other Beings, based on reciprocity (Callicott & Nelson, 2004). The ability to live in alignment with our cultural values and ethics are a determinant of our health and wellbeing, as they enhances community strength and empowers individuals to navigate contemporary challenges with confidence.

Central to our wholistic understanding of wellbeing is our deep respect for *Aanikoobigiganaanan* and the traces they left behind, including *kina ngadmawaad*. These items are not merely historical objects; they are tangible connections to our past generations, carrying Knowledge, teachings, and aspects of our cultural identity. Ensuring their proper care and treatment reinforces a sense of continuity and belonging, grounding community members in their *nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad* and strengthening our collective identity. Cultural continuity is not only a matter of identity – it is a determinant of health and social resilience, supporting mental wellness, social cohesion, and collective identity.

The proper treatment of *Aanikoobigiganaanan* and *kina ngadmawaad* is integral to our mental and emotional health. Caring for *Aanikoobigiganaanan* and *kina ngadmawaad* allows for the gathering and sharing of our Knowledge, teaching our younger generations about our historical lifeways and our cultural and spiritual customs. This active engagement strengthens our cultural longevity, which is a critical component of wellbeing for our communities.

Our health and wellbeing are deeply influenced by social determinants of health such as income, education, and housing. Indigenous peoples across Canada experience higher rates of chronic illness, mental health challenges, and food insecurity than the general population, and our communities are no exception. These disparities are rooted in systemic barriers to healthcare access, as well as the intergenerational impacts of colonial trauma, including residential schools and child welfare interventions. Mental health challenges such as depression, substance use, and suicide disproportionately affect Indigenous communities, highlighting the need for wholistic

and culturally safe services. In response, the MS-WTFNs are increasingly incorporating traditional healing, Elder guidance, and land-based wellness programs into health initiatives. These approaches strengthen resilience by connecting our community members with culture, territory, and spirituality, creating pathways to healing that extend beyond western medical models.

The ability to exercise our Right to self-determination, and to exercise our sovereignty and autonomy, in alignment with our responsibilities, values, and ways of knowing and being, are determinants of our mental and social wellbeing. Our decision-making authority ensures that community members have a voice in shaping policies and practices that affect our Lands, Waters and all Relatives, our livelihoods, and our spiritual practices, reducing the stress and uncertainty that arise when decisions are made externally.

What encompasses the health and wellbeing of our communities must be defined by the MS-WTFNs. A framework for identifying, understanding, evaluating and analyzing the health and wellbeing of our communities through our own ways of knowing and being will need to be developed, including, but not limited to, through a MS-WTFNs-led Impact Assessment.

OPG is committed to working with MS-WTFNs to better understand what characterizes health and wellbeing from their perspective as well as developing an understanding of the current health context for MS-WTFNs in relation to the NNW site and surrounding area.

3.5.3.2 Access to Health Care / Access to Health and Wellbeing Care

Access to health and wellbeing care must be understood through a wholistic framework that integrates physical, mental, emotional, and spiritual dimensions. Our people have relied on our ways of knowing and being to care for our health and wellbeing, since *me'wzha*. For us, health care includes unfettered access to the Lands, Waters and all Relatives within our homelands and Treaty Territories; they sustain our health and wellbeing.

Through our intergenerational Knowledge and experiences, we have identified, cultivated, and received gifts, and teachings, from our Relatives, some of which are our traditional medicines. They provide essential remedies for our physical ailments, support our immune and digestive health, and serve as preventive care, complementing western medical approaches. Our Knowledge and use of these medicines are embedded in culturally specific practices, ensuring that healing aligns with our community values, spiritual beliefs, and responsibilities to our Relatives.

The use of traditional medicines extends beyond our physical health to encompass our emotional and spiritual wellbeing. Preparation and administration of these medicines often involve ceremonial practices, prayers, and guidance from our Elders or Knowledge holders, reinforcing

connections to our Relatives. These practices provide us with comfort, promote our emotional resilience, and strengthen our mental wellbeing by nurturing a sense of belonging, purpose, and identity. Engaging with our traditional medicines in a culturally meaningful way fosters wholistic healing, addressing root causes of illness and imbalance rather than merely treating symptoms.

Traditional medicines are also a critical vehicle for the intergenerational transfer of our ways of knowing and being. Our Elders and Knowledge holders teach our younger generations how to identify, harvest, prepare, and use medicinal plants sustainably, ensuring continuity of both our cultural practices and health benefits. This transfer of Knowledge strengthens our social cohesion, instills cultural pride, and reinforces the resilience of our communities. Moreover, by maintaining these practices, we can work towards *chi weshjigaadeg nike gaazhnaagwaak mewzha*, ensuring the long-term availability of medicinal resources.

The ability to access, produce, and use traditional medicines is closely linked to our cultural sovereignty and self-determination in health care. Exercising control over these practices enables our communities to make decisions about wellness in ways that are culturally appropriate, safe, and aligned with our spiritual values. Protecting Knowledge of medicinal plants, and their uses, also safeguards our *nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad*, which reinforces our cultural identity and continuity. In essence, traditional medicines are not only a tool for individual and collective health, but they are also a vital component of cultural vitality, environmental stewardship, and wholistic wellbeing.

Health conditions in the region are shaped by a combination of local healthcare infrastructure, regional service delivery, and systemic inequities faced by Indigenous peoples. Hospitals, health centres, and community organizations across Northumberland County, Durham Region, and Peterborough County provide a broad range of services, some of which include Indigenous-specific programming. However, the MS-WTFNs and other Indigenous peoples continue to experience barriers to care, including discrimination, cultural insensitivity, and systemic gaps in accessibility and affordability. Situating the health context within both the regional healthcare landscape and the specific challenges of Indigenous peoples highlights the importance of culturally relevant, equitable, and community-driven approaches to health and wellbeing.

The NNW site resides in Northumberland Country and is part of Lakelands Public Health. Both Port Hope and Cobourg have numerous community facilities and services including major health facilities, supporting health.

Indigenous-specific programs and services are offered through some hospitals, clinics and healthcare centres in regions, counties, and municipalities east, west, and north of the NNW

site¹¹⁹. Information included in this section pertaining to these programs and services was gathered through publicly available sources. Direct outreach to program and service providers is required to verify available programs and services, service areas, rates of use, service gaps and capacity.

Cobourg is the location of the Northumberland Hills Hospital serving the catchment area of west Northumberland County. It delivers a broad range of acute, post-acute, outpatient and diagnostic services. The Northumberland Hills Hospital also offers Indigenous Navigator services to Indigenous-identifying patients diagnosed with cancer (Northumberland Hills Hospital, 2025). Services include:

- cultural and translation services
- support of care planning aligned with patient goals and wishes
- support before, during, and after appointments
- facilitation of monthly sharing circles
- information sharing and clarification regarding patient care (Northumberland Hills Hospital, 2025).

In addition to providing services at Northumberland Hills Hospital, the Indigenous Navigator provides services to several hospitals and health centres within the Lakelands Public Health Unit catchment (Lakeridge Health, 2023).

The Community Health Centre of Northumberland (CHCN) operates from Port Hope. Their focus is on the elderly, people struggling with mental health issues and/or addictions and youth at risk, among others. The CHCN provides some Indigenous-focused programs and services. For example, the CHCN Diabetes Education Team provides workshops and support to some First Nations communities on diabetes prevention and management (Community Health Centres of Northumberland, 2019a). The CHCN also hosts Indigenous-specific workshops, such as the Fall Celebration of Manoomin hosted in collaboration with two Knowledge Keepers from AFN (Community Health Centres of Northumberland, 2019b).

As described by Peterborough Public Health (PPH), health service agreements were established with CLFN in 1998 and HFN in 2007. Since these respective dates, both communities have had representation on the PPH board (Peterborough Public Health, n.d.). PPH offers a free RSV Immunization Program for First Nations community members above the age of 60

¹¹⁹ Throughout this section, regions, counties and municipalities east, west, and north of the NNW site include Northumberland County, Municipality of Port Hope, Town of Cobourg, Township of Hamilton, Durham Region, Municipality of Clarington, Peterborough County, City of Kawartha Lakes, Town of Lindsay and City of Peterborough.

(Peterborough Public Health, 2024a). PPH also offers free online Prenatal Classes for expecting parents of CLFN and HFN (Peterborough Public Health, n.d.b). As of 2024, the PPH has hired a Manager of Indigenous Health, responsible for leading Peterborough's Indigenous engagement activities and contributing to the Indigenous reconciliation, decolonization, and Indigenization process (Peterborough Public Health, 2024c).

Peterborough Regional Health Centre (PRHC) is a regional hospital delivering acute healthcare to the city and the county. The PRHC offers Spiritual Care to Indigenous patients through the Spiritual Care Department, which supports cultural preferences for birth plans and end-of-life protocols through smudging or ceremony, as requested (Peterborough Regional Health Centre, 2019a). Smudging can be conducted in the Multifaith and Spiritual Centre, in patient rooms upon request, and the Spiritual Care Department offers support in organizing other rituals or ceremonies (Peterborough Regional Health Centre, 2019b).

The Peterborough Community Health Centre (PCHC) states that they take an Indigenous and community-centered holistic approach to enhance the mental, emotional, physical, and spiritual wellbeing of Indigenous peoples within the surrounding communities. PCHC provides cultural connection services such as:

- access to culturally specific programming
- opportunities to engage in ceremony
- learning opportunities from traditional Knowledge carriers
- facilitation of connections with Elders, and re-connection with Mno Bimaadziwin (The Good Life)
- traditional healers within healthcare services (Peterborough Community Health Centre, 2024).

Durham Region, to the west of the NNW site, has many facilities for primary care, dental, mental health, addiction treatment, and emergency services. The majority of medical centres are located in Oshawa. However, Lakeridge Public Health, provides urgent care, emergency care, and mental health services. The Bowmanville, Ajax, and Oshawa hospitals operate under Ontario's Radiation Health Response Plan as part of the provincial nuclear emergency framework and are equipped to treat individuals exposed to radiation. The Lakeridge Health Centre has locations in Ajax/Pickering, Bowmanville, Oshawa, and Whitby, which state that they offer Spiritual Care inclusive of Indigenous requests, including smudging ceremonies (Lakeridge Health, 2023). The Oak Valley Health Uxbridge Hospital offers interpretation of Cree and Ojibwe through the Voyce app, allowing health care providers to connect with medical interpreters and communicate with Indigenous patients in their preferred language (Oak Valley Health, 2025).

Indigenous Navigator Services are also available through Lakeridge Health (Lakeridge Health, 2023).

In addition to health supports, services, and programs offered through local hospitals and health centres, there are additional health support for Indigenous peoples available in the area through Indigenous and other organizations. These supports, services and programs are presented in Table 17.

Table 17: Additional Health Support for Indigenous Peoples

Organization	Description	Programs / Services
Nogojwanong Friendship Centre (Peterborough)	A place for Indigenous people living in and around Peterborough, supporting First Nations, Métis, and Inuit individuals and families through programs guided by the Seven Grandfather teachings and community needs.	<ul style="list-style-type: none"> • Cultural Resource Program • Healthy Living Program • Life-Long Care Program • Prenatal Nutrition Program • Wiisinadaa: Let’s Eat Program
Lovesick Lake Native Women’s Association (Peterborough County)	Provides a range of support services and promotes the health of off-reserve Indigenous peoples through nutrition and food preparation workshops, culturally appropriate health and wellness programs for children and adults, and support services to the Elderly or people with disabilities.	<ul style="list-style-type: none"> • Aboriginal Prenatal Nutrition Program • Community Action Program for Children • Long-Term Care Program • Home visits and referrals • Nutrition and fitness classes • Support groups
Nijkiwendidaa Anishnaabekwewag Services Circle (Peterborough)	Develops and delivers healing services for women and families who have experienced violence or are at risk of experiencing violence. Therapeutic healing work is conducted with Anishnaabe cultural practices, blended with community-centred and client-centred methods of healing.	<ul style="list-style-type: none"> • Indigenous Healthy Babies Healthy Children Support Program • Indigenous Counselling for Women Experiencing Violence Support Program • Family home visits • Sharing groups, talking circles
Bawaajigewin Aboriginal Community Circle	Strives to respond to and advocate for the dreams and visions of the Durham Region Indigenous community through cultural programming, events, and workshops.	<ul style="list-style-type: none"> • Crafting nights • Drumming circles • Creative arts workshops • Grief and loss workshops
Indigenous Health and Wellbeing Education and Training Programs (Trent University)	Post-secondary education institutions with health-related programs and designations focused on Indigenous health and wellbeing.	Fleming College – Indigenous Perspectives Designation is available for all programs within the School of Health and Community Services.

Organization	Description	Programs / Services
<p>and Fleming College, Peterborough)</p>		<p>There are two programs in the Community Services Program that require Introduction to Indigenous Studies within the curriculum:</p> <ul style="list-style-type: none"> • Developmental Services Worker • Early Childhood Education <p>Trent University – offers undergraduate degrees in Indigenous Studies and Indigenous Environmental Studies and Sciences. Course offerings include:</p> <ul style="list-style-type: none"> • Indigenous Knowledge Systems and the Natural Environment • Understanding Indigenous Peoples’ Health and the Environment • Addressing Indigenous Peoples’ Health and Environment Challenges • Indigenous Peoples Health and Environment

3.5.3.3 Barriers to Accessing Health Care for Indigenous Peoples

The *National Report of the First Nations Regional Health Survey Phase 3: Volume Two* (First Nations Information Governance Centre, 2018) notes that health care services available in Indigenous communities often fail to meet community specific needs. Discrimination towards Indigenous peoples is deeply rooted in the Canadian health care system. In the Toronto area alone, 71% of Indigenous peoples have experienced racism by medical professionals (Burnley & Farrugia, 2024). Many Indigenous peoples avoid accessing health care due to the legacy of culture restrictions and discrimination, which combined with their current negative experiences, have accumulated into large mistrust and apprehension of health care facilities and professionals.

With over 44% of Indigenous peoples living in urban areas, there are an ongoing variety of barriers in accessing quality health care services (Burnley & Farrugia, 2024). Barriers to access persist in the form of discrimination, racism, lengthy wait lists, culturally inappropriate care (National Collaborating Centre for Indigenous Health, 2019), and inadequate coverage through Non-Insured Health Benefits (NIHB) (First Nations Information Governance Centre, 2018).

As information regarding specific barriers to accessing healthcare for Indigenous peoples in regions, counties and municipalities east, west, and north of the NNW site is not publicly available, additional research and outreach is required. Initial research gathered through publicly available sources provides the general barriers (presented below) and statistical information is for Ontario or Canada.

3.5.3.4 Racism and Discrimination

- In 2024, 50% of Indigenous peoples living off-reserve reported experiencing unfair treatment, racism or discrimination from a health care professional (Statistics Canada, 2024a).
- Negative biases and stereotypes may result in lower standards of care in medical settings leading to Indigenous peoples feeling unwelcome and unsafe in healthcare environments (Barbo & Alam, 2024) (National Collaborating Centre for Indigenous Health, 2024).

3.5.3.5 Socio-economic Inequities

- Indigenous peoples facing socio-economic disadvantages may face barriers to paying for supplemental health care services and as a result, experience higher rates of issues such as dental, vision and chronic illnesses (Shirazi, 2025).
- 9% of the Canadian population who identified as Indigenous are living in poverty, compared to the 7% of the non-Indigenous population in Canada (Canadian Poverty Institute, n.d.).
- Indigenous peoples living off-reserve have a median income of \$25,134, with a 52% employment rate. In contrast, non-Indigenous peoples in Canada have a median income of \$34,606, with a 60.5% employment rate (National Association of Friendship Centres, 2022).
- Many Indigenous peoples residing in urban cities experience a gap in the wraparound services required for wellbeing (e.g., mental health services, elder care, Indigenous midwifery, and safe support for two-spirit people) (National Association of Friendship Centres, 2022).

3.5.3.6 Limited Representation and Cultural Sensitivity Education

- There is limited representation of Indigenous peoples in all levels of the Canadian health care system.
- “Pan-Indigenous” approaches to healthcare assume a one-size fits all approach for Indigenous peoples and do not consider the individual identities, needs, and cultures of First Nation, Inuit, or Métis peoples (National Association of Friendship Centres, 2022).

- In 2024, 21% of First Nations people living off reserve indicated that their cultural protocols were not respected (e.g., not allowed to smudge or use traditional medicines) (Statistics Canada, 2024a).
- Difficulties communicating with and understanding medical professionals have been cited as a barrier to accessing services (Barbo & Alam, 2024).

3.5.3.7 Lack of Primary Health Care Providers

- 1 in 5 First Nation adults reported not having a primary care provider and 22.6% of whom required access to health care in 2018 were unable to consult with medical professionals (First Nations Information Governance Centre, 2018).
- 47.5% of Indigenous peoples access walk-in clinics across Canada (Statistics Canada, 2023a), where they may not see the same medical professional each time they visit.
- In urban cities in Ontario, 12.9% of Indigenous peoples have reported having to wait longer than two weeks, in contrast to the 7.8% reported by non-Indigenous residents (Statistics Canada, 2023a).

3.5.3.8 Jurisdictional Disputes

- Jurisdictional disputes at various levels of government over the financial responsibility of Indigenous health services create a barrier for how and when Indigenous peoples access health care.
- Canadian policies regarding Indigenous health care are found in three, separate legislations 1) the 1867 Constitution Act 2) the Indian Act, including the amendments, and 3) the 1985 Canada Health Act. Between the three legislations, there are jurisdictional conflicts related to who is considered an “Indigenous person” (registered or unregistered) and whether it is federal or provincial responsibility to implement/oversee Indigenous health care services (National Association of Friendship Centres, 2022).
- In 2016, the Government of Canada was proven to have failed the implementation of *Jordan’s Principle* by the Canadian Human Rights Tribunal (National Association of Friendship Centres, 2022).
- People who self-identify as First Nation, living on-reserve or in remote communities have more access to services through NIHB than those who move to or were born in urban areas, as it is expected for urban Indigenous peoples to access health care services via their provincial health care plans (National Association of Friendship Centres, 2022) (National Collaborating Centre for Indigenous Health, 2024).

3.5.3.9 Food Insecurity and Poverty

Food insecurity is monitored by Ontario Public Health Units using the Nutritious Food Basket tool which helps show the link between healthy eating, health and well being, and family income. Households that are low-income, single parent, racialized, or rely on social assistance are at increased risk for food insecurity (Lakelands Public Health, 2024).

Rates of food insecurity have been increasing over time across Canada. These rates are highest among Indigenous populations, and most particularly for people who experience multiple intersecting vulnerabilities. For example, single women tend to have higher rates of food insecurity, and those who are Indigenous experience even higher rates (Statistics Canada, 2022). Within Ontario approximately 40% of Indigenous households living off reserve experience food insecurity, which is consistent with rates at the National level (Statistics Canada, 2024b).

Across Canada, Indigenous populations tend to experience higher rates (nearly twice) of poverty compared with non-Indigenous Canadians (Statistics Canada, 2025). Within the Census Metropolitan Area of Peterborough, as an example, the poverty rate of Indigenous peoples was 13.1% in 2020, compared to 7.7% for the whole population, based on the Market Basket Measure (Statistics Canada, 2022).

Within the regions, counties and municipalities east, west, and north of the NNW site, supports exist for Indigenous peoples facing food insecurity. For example, the Lovesick Lake Native Women's Association's Community Action Program for Children (CAPC), offers workshops and services to the Indigenous communities surrounding Peterborough, including a food pantry program and nutritional supplements (Lovesick Lake Native Women's Association, 2024).

More outreach and research are needed to better understand rates of food insecurity and poverty within the regions, counties and municipalities east, west, and north of the NNW site.

Traditional foods are central to the food security of our communities. Such foods are obtained through our harvesting practices and are nutrient rich. Our sense of food security is tied to our ability to freely access the Lands, Waters and all Relatives and is informed by our sense that our traditional foods are safe to consume. Many of our Relatives, who share gifts of traditional food and medicines, are extinct or are becoming Territorially rare or inaccessible, which has a direct impact on our food security and our ability to exercise our harvesting Rights.

3.5.3.10 Mental Health

Lakelands Public Health monitors data on mental health indicators which have shown trends of declining mental health among residents. Lakelands Public Health has developed a Mental Health Promotion Framework. The framework provides plans on how to support individuals,

families, public health professionals, school communities, and other communities to achieve positive mental health and wellbeing. Although the Mental Health Promotion Framework does acknowledge the need to work collaboratively with individuals with lived experience of health inequity such as Indigenous peoples, comparable data for Indigenous peoples was not available in the Framework (Lakelands Public Health, 2025).

While some Indigenous-specific mental health services and supports are available in the regions, counties and municipalities east, west, and north of the NNW site, data specific to Indigenous peoples in the region and at the community level are lacking. Nationally, in 2024, of all people who identify as First Nation and who live off-reserve, roughly three quarters of those who report requiring mental health care needs, report those needs as being unmet (Statistics Canada, 2024c). Deaths by suicide are, on average, three times higher among those who identify as First Nation than the non-Indigenous population in Canada (Statistics Canada, 2019) and access to culturally appropriate services continue to be a need for Indigenous communities (Statistics Canada, 2024d).

More outreach and research are needed to better understand Indigenous-specific mental health trends within the regions, counties and municipalities east, west, and north of the site. Partnerships with Statistics Canada and other organizations may result in more geographically scoped data sets than are currently available online.

3.5.3.11 Key Health Characteristics

Lakelands Public Health monitors mortality statistics within the region and compares these against statistics from all of Ontario. 33.9% of deaths were classified as premature mortality (less than 75 years of age) within the area serviced by the Lakelands Public Health. The leading causes of death for the community where cancer as is typical of most communities in Ontario, followed by ischaemic heart disease (Haliburton, Kawartha, Pine Ridge District Health Unit, 2024). The Lakelands Public Health does not provide comparable health statistics specific to Indigenous peoples.

There is little recent data on mortality rates for Indigenous peoples at the national level or within Ontario, though some more recent data does exist in other provinces. From 2006 to 2016, the Age Standardized Mortality Rates was higher for those who identify as First Nation who live off and on-reserve when compared to the non-Indigenous population (Statistics Canada, 2021).

To help fill these ongoing data gaps, Indigenous organizations are seeking to collect their own data to better understand key health statistics.

The Chiefs of Ontario First Nation Regional Health Survey (RHS) Phase III is a survey focused on gathering data about the health and wellbeing of Indigenous peoples in Ontario. Twenty-six First Nation communities within Ontario participated within the 2019 survey. Reported barriers for adults who identify as First Nation who are accessing health care include the waiting list being too long, feeling the healthcare provided was inadequate, and the treatment/care not covered by Non-Insured Health Benefits (NIHB). Adults, who identify as First Nation, reported difficulties in accessing health services through NIHB within dental care, prescription medications, and vision care (Chiefs of Ontario, 2020).

Anishnawbe Health Toronto (AHT) is an Indigenous Health Centre providing health care programs and services to the Toronto area. Within the 2023-2024 Annual Report, the AHT reported their primary care services saw 6,632 in-person visits, 3,516 phone appointments, and 2,032 third party appointments. AHT reported type 2 diabetes as the most prevalent health condition in the Indigenous community, as Indigenous peoples face contributing factors of poverty, food scarcity, and lasting impacts of the COVID-19 pandemic and colonization (Anishnawbe Health Toronto, 2024).

3.5.3.12 Radiological Impacts to Health

OPG will work with Rights-holding First Nations and interested Indigenous communities to develop assessment methods that reflect the Indigenous health context, including relative to traditional foods and relevant receptors. A Traditional Foods Study may be used to identify what traditional food items are consumed and the quantities of traditional food consumed, in collaboration with Rights-holding First Nations and interested Indigenous communities.

Several studies have been conducted in the Port Hope area related to historical radiological waste due to its former radium and uranium refining facility (refer to Section 3.3.3). The wastes associated with these materials have been the subject of many studies over the years, including consideration of the potential health effects associated with the environmental impacts in the vicinity of the facility.

Several studies are published and referenced by Public Health Agency of Canada (PHAC) regarding radiation-related health effects, including cancer and general mortality, for the Port Hope area. Rates of these health outcomes in Port Hope are within expected ranges for Ontario and Canada (Health Canada, 2011). This aligns with measured levels of radiation in the urban Port Hope area and related contaminants (e.g. uranium, radium) which are also similar to the rest of Canada. These studies do not discuss radiological impacts to Indigenous peoples explicitly, rather grouping the local population together in most contexts.

CNSC's *Environmental Protection Review Report* for the PHAI is also referenced by the PHAC (Canadian Nuclear Safety Commission, 2022). The PHAI project encompasses the remediation of legacy LLW from the Port Hope and Port Granby areas. Based on the available information, CNSC staff determined that radiological and non-radiological contaminant releases to the environment from PHAI activities have had a negligible risk of potential health impacts to the public, including First Nations and Indigenous communities within the PHAI areas.

3.5.4 Economic Context

The NNW site is within the Municipality of Port Hope. Port Hope has a history of involvement to the nuclear industry, dating back to the 1930s when a former federal Crown Corporation, Eldorado Nuclear Limited, and its private-sector predecessors undertook uranium refining operations. These operations resulted in the contamination of sediments in Port Hope Harbour and numerous sites within the urbanized area of the town. Port Hope Harbour was designated an Area of Concern (AOC) in 1987 under the Canada-U.S. Great Lakes Water Quality Agreement (GLWQA). Bordering the harbour is the Cameco Corporation's Port Hope Conversion Facility, the only uranium conversion facility in Canada, currently producing uranium hexafluoride and uranium dioxide, required in the production of fuel for light water and CANDU-type, heavy water nuclear reactors.

The harbour and urban area of the town are the focus of the Port Hope Project, part of the PHAI (see Section 1.6) led by CNL. The Port Hope Project involves the cleanup of historic low-level radioactive contaminated sediments and soils and its long-term safe management in an engineered, aboveground mound located south of Highway 401 and west of Baulch Road.

Table 19 presents some key economic characteristics of the select municipalities and other selected regions near the NNW site.

3.5.4.1 Economic Context of the MS-WTFNs

Prior to colonization, we sustained ourselves through thriving traditional economies that were rooted in our care for, and responsibilities to the Lands, Waters and all Relatives. Our economies were built through our trade networks, and upon our reciprocal relationships with neighbouring Nations. The NNW site is located along the shore and along tributaries of *Gchi Nibi*, which was historically dominated by vast areas of cultivation, ecological management, harvesting, including continuous Indigenous fisheries (Telford, 2000), and areas of trade between First Nations.

Our harvesting Rights, which include hunting, fishing, trapping, and gathering, are central to sustaining our traditional economy. Our Rights ensure our continued access to renewable natural resources that we have historically relied on for both subsistence and community-based trade.

Resources, such as fish, deer, waterfowl, wild rice, maple products, and medicinal plants, provide for both our immediate consumption and economic exchange within and between our communities. These resources are often used in gifting, ceremonial exchanges, and social networks, reinforcing reciprocal economic relationships which are central to our traditional economy.

Our traditional economy informs our sense of community wellbeing, cultural identity, and intergenerational continuity. We are the Salmon People, and the People of the Big River Mouths (Williams-ban, 2018); our cultural identity has always been rooted in our traditional economy, which is a wholistic system encompassing subsistence activities, seasonal harvesting, trade networks, governance, spiritual practice, and responsibilities to the Lands, Waters and all Relatives. Economic activity in the MS-WTFNs' context is inseparable from our culture and place.

Our traditional economies are dynamic, adaptable, and increasingly integrated with our contemporary economic and governance frameworks. Modern initiatives, including community-led eco-tourism, sustainable fisheries programs, environmental monitoring, and partnerships with conservation organizations, leverage our ways of knowing and being to create economic opportunities while maintaining our cultural integrity. Guided wild rice harvesting tours, for example, provide income and cultural education simultaneously, allowing visitors to learn about sustainable practices and our culture. Community-based fisheries programs combine traditional fishing Knowledge with scientific monitoring to ensure ecosystem sustainability and food security. By maintaining access to our homelands, fostering participation in culturally grounded activities, and protecting our ways of knowing and being, our communities enhance resilience, self-determination, and cultural continuity.

Our communities form an integral part of the regional economic landscape in southern Ontario. Although small in population size relative to surrounding municipalities, the four Nations demonstrate active labour force participation across multiple sectors while also contending with persistent socio-economic barriers. In 2021, the combined population aged 15 years and over across the Nations was approximately 1,885, of which 920 individuals were in the labour force. Labour force participation rates varied between communities, with HFN (53.3%) and AFN (51.1%) approaching the national average, while CLFN (46.8%) and MSIFN (45.0%) were significantly lower. These figures compare unfavourably to Ontario's provincial participation rate of 62.8% and suggest structural constraints such as limited local employment opportunities, transportation barriers to regional job centres, and challenges related to education and skills training.

Unemployment rates across the MS-WTFNs remain well above regional and provincial benchmarks, with AFN (23.4%), CLFN (20.8%), and MSIFN (22.2%) all exceedingly double the

Ontario rate. HFN's unemployment rate (12.5%) was comparatively lower but still higher than the Ontario average of 7.4%. These elevated levels of unemployment reflect ongoing disparities in labour market outcomes and highlight the vulnerability of smaller Indigenous labour markets to fluctuations in local demand and the availability of stable, permanent positions. While permanent employment constituted the majority of jobs in all four of the MS-WTFNs, the proportion of temporary and contract positions was comparatively higher than in neighbouring municipalities, reinforcing the need for secure, long-term employment pathways.

Occupational distribution within the MS-WTFNs reveals a concentration in service-based and skilled trades employment. Sales and service occupations (ranging from 40 to 105 positions per Nation) and trades, transport, and equipment operators (35 to 110 positions) together accounted for a significant share of the workforce. Employment in education, law, social, community, and government services was also notable, particularly in CLFN and AFN, where between 45 and 95 individuals were employed in this category. These occupational patterns reflect both local demand for community services and reliance on trades-based and service-oriented employment accessible within commuting distance. Employment in business, finance, administration, and health occupations were present but relatively limited, while natural resources, manufacturing, and cultural/recreational roles remained marginal. A smaller share of employment was represented in natural resources and agriculture (particularly in AFN and CLFN), reflecting both traditional land-based practices and small-scale agricultural activity.

Self-employment is a defining feature of the MS-WTFNs' economic profile, with between 6% and 15% of the labour force across the four Nations identifying as self-employed. This reflects the prevalence of entrepreneurship in trades, small contracting businesses, arts and cultural ventures, and land-based economic activities. Self-employment not only supplements limited local job markets but also provides important pathways for cultural continuity, innovation, and economic independence. The relatively high rates of self-employment compared to surrounding municipalities underscore the importance of supporting Indigenous entrepreneurs with access to capital, markets, and skills development.

Income data highlights persistent disparities in economic wellbeing across the MS-WTFNs. Average employment income for full-year, full-time workers ranged from \$50,000 at HFN to \$62,000 at AFN all below the Ontario average of \$82,400. Average income across all recipients ranged from \$31,300 at CLFN to \$36,000 at AFN, reflecting not only limited access to higher-wage employment but also the reliance on part-time, seasonal, or temporary work. Household incomes similarly lagged behind neighbouring municipalities, with AFN and CLFN households averaging just over \$61,000 annually and HFN households reporting a higher figure of \$71,000. The lack of available income data for MSIFN, due to its small population size, underscores the

need for caution in interpreting small sample sizes but is not expected to diverge substantially from the general trend of below-provincial average incomes.

Despite these challenges, the MS-WTFNs continue to pursue a wide range of economic development opportunities. Investments in community-owned enterprises, renewable energy projects, cultural tourism, and partnerships in the service and construction sectors are contributing to employment creation and skills development. The MS-WTFNs' proximity to regional economic hubs such as Peterborough, Durham Region, and Northumberland provides opportunities for commuting, contracting, and partnership arrangements, though transportation access and infrastructure limitations continue to present barriers. Increasingly, Nation-led economic development corporations and business arms are playing a critical role in diversifying local economies, building capacity, and ensuring that economic growth aligns with community values and priorities.

Looking forward, the MS-WTFNs are positioned to benefit from major regional economic activities, including projects in the energy sector such as the Wesleyville redevelopment. Opportunities exist to enhance workforce participation through targeted training programs, procurement strategies that prioritize Indigenous businesses, and the inclusion of community members in skilled trades and service contracts. Expanding these opportunities would not only reduce disparities in employment and income but also strengthen self-determination and long-term prosperity for our communities. By aligning economic development with both cultural identity and regional growth, we are laying the groundwork for greater economic resilience and sustainability in the years ahead.

Table 18 presents some key economic indicators of the MS-WTFNs.

Table 18: Economic Indicators of the MS-WTFNs^{120,121}

Indicator	Alderville First Nation	Curve Lake First Nation	Hiawatha First Nation	Mississaugas of Scugog Island First Nation
Population aged 15 years and over ¹²²	460	1,025	300	100

¹²⁰ Information in this table was provided from census data (Statistics Canada, 2025).

¹²¹ It should be noted that Indigenous peoples often do not participate in censuses as frequently as non-Indigenous populations and therefore these statistics may not accurately represent the number of individuals living within the area who may identify as First Nation, Métis or Inuit.

¹²² In private households

Indicator	Alderville First Nation	Curve Lake First Nation	Hiawatha First Nation	Mississaugas of Scugog Island First Nation
Labour Force	235	480	160	45
Employed	185	375	140	30
Unemployed	55	100	20	10
Participation Rate	51.1%	46.8%	53.3%	45.0%
Unemployment Rate	23.4%	20.8%	12.5%	22.2%
Permanent position	160	300	120	20
Temporary position	30	70	25	10
Self-employed	30	70	15	10
Legislative and senior management occupations	10	10	0	0
Business, finance and administration occupations	20	55	30	10
Natural and applied sciences and related occupations	0	10	0	0
Health occupations	15	10	0	0
Occupations in education, law and social, community and government services	45	95	30	0
Occupations in art, culture, recreation and sport	10	15	0	0

Indicator	Alderville First Nation	Curve Lake First Nation	Hiawatha First Nation	Mississaugas of Scugog Island First Nation
Sales and service occupations	55	105	40	20
Trades, transport and equipment operators and related occupations	50	110	35	0
Natural resources, agriculture and related production occupations	10	25	0	10
Occupations in manufacturing and utilities	10	0	10	0
Average employment income of full-year full-time workers	\$62,000.00	\$50,400.00	\$50,000.00	Unavailable
Average employment income of all recipients	\$36,000.00	\$31,300.00	\$34,000.00	Unavailable
Average total household income	\$61,600.00	\$61,400.00	\$71,000.00	Unavailable

OPG is committed to working with Rights-holding First Nations and interested Indigenous communities to better understand the key economic characteristics of Indigenous peoples.

Table 19 also presents the average employment income for employed individuals and average household income for 2020. The Township of Hamilton reported the highest average incomes in all categories followed by the Municipality of Port Hope. Northumberland County had the third highest average income with the exception of the average employment income of full-year full-time workers which was slightly higher in the Town of Cobourg. Compared to Ontario, the average incomes in all categories were lower within these areas with the exception of average total household income in the Township of Hamilton.

Table 19: Key Economic Characteristics of Selected Municipalities Nearest the NNW site^{123,124,125}

Indicator	Northumberland County		Municipality of Port Hope		Town of Cobourg		Township of Hamilton	
	Total Population	Indigenous Population	Total Population	Indigenous Population	Total Population	Indigenous Population	Total Population	Indigenous Population
Labour Force (2021)								
Population aged 15 years and over	75,905	2,505	14,670	380	17,245	425	9,500	195
Labour Force	41,445	1,545	8,210	255	8,765	270	5,950	150
Employed	36,915	1,345	7,295	230	7,680	230	5,315	140
Unemployed	4,530	200	910	25	1,090	40	635	15
Participation Rate	54.6%	61.7%	56.0%	67.1%	50.8%	63.5%	62.6%	76.9%
Unemployment Rate	10.9%	12.9%	11.1%	9.8%	12.4%	14.8%	10.7%	10.0%

¹²³ Information in this table was provided from census data (Statistics Canada, 2025).

¹²⁴ It should be noted that Indigenous peoples often do not participate in censuses as frequently as non-Indigenous populations and therefore these statistics may not accurately represent the number of individuals living within the area who may identify as First Nation, Métis or Inuit.

¹²⁵ "M" is used to denote missing data where data were not available from a desktop search of core sources.

Indicator	Northumberland County		Municipality of Port Hope		Town of Cobourg		Township of Hamilton	
	Total Population	Indigenous Population	Total Population	Indigenous Population	Total Population	Indigenous Population	Total Population	Indigenous Population
Job Permanency (2021)								
Permanent position	33,625	M	5,920	M	6,345	M	4,200	M
Temporary position	4,490	M	825	M	975	M	640	M
Self-employed	7,035	195	1,320	55	1,220	35	1,030	15
Employment by National Occupational Classification								
Legislative and senior management occupations	410	10	85	0	80	0	50	0
Business, finance and administration occupations	5,535	190	1,240	45	1,185	20	780	10
Natural and applied sciences and related occupations	2,100	55	500	0	445	10	300	10

Indicator	Northumberland County		Municipality of Port Hope		Town of Cobourg		Township of Hamilton	
	Total Population	Indigenous Population	Total Population	Indigenous Population	Total Population	Indigenous Population	Total Population	Indigenous Population
Health occupations	3,200	120	640	25	755	40	490	15
Occupations in education, law and social, community and government services	4,740	215	855	25	1,170	35	600	35
Occupations in art, culture, recreation and sport	1,225	25	290	0	285	0	175	0
Sales and service occupations	10,065	410	2,030	75	2,420	85	1,430	35
Trades, transport and equipment operators and related occupations	8,655	315	1,555	55	1,405	45	1,355	15
Natural resources, agriculture and	1,700	55	265	0	180	10	190	0

Indicator	Northumberland County		Municipality of Port Hope		Town of Cobourg		Township of Hamilton	
	Total Population	Indigenous Population	Total Population	Indigenous Population	Total Population	Indigenous Population	Total Population	Indigenous Population
related production occupations								
Occupations in manufacturing and utilities	3,025	115	600	25	620	15	490	20
Income (2020)								
Average employment income of full-year full-time workers	\$72,900.00	\$64,000.00	\$74,500.00	\$52,000.00	\$73,900.00	\$73,000.00	\$81,200.00	\$88,000.00
Average employment income of all recipients	\$44,720.00	\$40,000.00	\$46,400.00	\$34,000.00	\$44,600.00	\$40,800.00	\$50,640.00	\$58,800.00
Average total household income	\$103,000.00	\$99,500.00	\$106,100.00	\$101,000.00	\$95,800.00	\$96,000.00	\$129,200.00	\$160,000.00

Durham Region is a highly developed and populated economic centre of Ontario. Durham Region has developed a reputation for a strong manufacturing sector, largely associated with the presence of General Motors in the City of Oshawa. Durham Region is endowed with a skilled labour force. It has the utilities, transportation, and social infrastructure associated with a modern metropolitan community. Northern portions of Durham Region have extensive residential and commercial developments, farmlands and open space.

Despite the region's long-standing history of manufacturing, OPG's nuclear facilities are recognizable industrial facilities among local residents. OPG and the Ontario Tech University are now among the region's largest employers.

Durham Region also has a history of involvement in the nuclear industry. It is the host to OPG's Darlington Nuclear site, in the Municipality of Clarington and the Pickering Nuclear site in the City of Pickering. The PHAI's Port Granby Project situated at the south-eastern boundary of the Municipality of Clarington within Durham Region, is 5 km west of the NNW site and involves the safe, long-term management of historic LLW.

Table 20 presents some key economic characteristics of Durham Region and the Municipality of Clarington. In 2021, the eligible labour force in the Durham Region was 565,960. The Municipality of Clarington accounted for approximately 14% of this. The dominant occupational groups for Durham Region were:

- sales and service occupations (24.9%)
- business, finance, and administration occupations (19.4%)
- trades, transport, and equipment operators and related occupations (17.5%)

Table 20 also presents the average employment income for employed individuals and average household income for 2020 based on the 2021 Census of Population for Durham Region and the Municipality of Clarington.

Durham Region and the Municipality of Clarington reported similar average incomes. Average total household income for both the Durham Region and Clarington exceeds the provincial average of \$116,000. Average employment income for all recipients and average employment income for full-year full-time workers are comparable to the Ontario averages of \$52,600 and \$82,400, respectively.

Table 20: Key Economic Characteristics of Selected Municipalities West of the NNW site^{126,127,128}

Indicator	Durham Region		Municipality of Clarington	
	Total Population	Indigenous Population	Total Population	Indigenous Population
Labour Force (2021)				
Population aged 15 years and over	565,960	10,590	81,125	1,990
Labour Force	367,505	6,935	54,265	1,400
Employed	320,545	5,885	48,260	1,280
Unemployed	46,960	1,050	5,995	125
Participation Rate	64.9%	65.5%	66.9%	70.4%
Unemployment Rate	12.8%	15.1%	11.1%	8.9%
Job Permanency (2021)				
Permanent position	265,835	M	40,405	M
Temporary position	42,405	M	5,915	M
Self-employed	47,275	715	6,500	130
Employment by National Occupational Classification				
Legislative and senior management occupations	3,830	65	420	0
Business, finance and administration occupations	69,065	1,060	9,070	185

¹²⁶ Information in this table was provided from census data (Statistics Canada, 2025).

¹²⁶ It should be noted that Indigenous peoples often do not participate in censuses as frequently as non-Indigenous populations and therefore these statistics may not accurately represent the number of individuals living within the area who may identify as First Nation, Métis or Inuit.

¹²⁸ "M" is used to denote missing data where data were not available from a desktop search of core sources.

Indicator	Durham Region		Municipality of Clarington	
	Total Population	Indigenous Population	Total Population	Indigenous Population
Natural and applied sciences and related occupations	31,780	300	3,810	80
Health occupations	26,060	495	4,505	110
Occupations in education, law and social, community and government services	44,000	960	7,260	220
Occupations in art, culture, recreation and sport	10,025	195	1,305	25
Sales and service occupations	88,495	1,785	12,515	340
Trades, transport and equipment operators and related occupations	62,330	1,340	10,350	275
Natural resources, agriculture and related production occupations	5,915	125	1,080	15
Occupations in manufacturing and utilities	14,010	345	2,495	95
Income (2020)				
Average employment income of full-year full-time workers	\$81,800.00	\$74,100.00	\$81,100.00	\$75,400.00

Indicator	Durham Region		Municipality of Clarington	
	Total Population	Indigenous Population	Total Population	Indigenous Population
Average employment income of all recipients	\$52,400.00	\$46,360.00	\$53,000.00	\$50,800.00
Average total household income	\$126,400.00	\$121,900.00	\$128,800.00	\$141,800.00
Average household size	2.8	3.0	2.8	3.1

Peterborough County and the City of Peterborough are located to the north of the NNW site. The City is host to BWXT Nuclear Energy Canada, where the company assembles CANDU fuel bundles for CANDU reactors. Natural uranium pellets are produced in Toronto and zirconium-alloy tubes are manufactured in Arnprior and then shipped to Peterborough, where they are assembled into fuel bundles.

Table 21 presents some key economic characteristics for the City of Kawartha Lakes, the County of Peterborough along with the urban hubs of the City of Peterborough based on the 2021 Census of Population. Data on the Town of Lindsay was not available.

In 2021 the eligible labour force in the City of Kawartha Lakes was 66,700 and there was a reported employment participation rate (i.e. persons in the labour force/eligible labour force) of 54.7%, which ranks lower than the provincial rate of 62.8% for Ontario of Ontario. The unemployment rate in Kawartha Lakes ranks below that of Ontario at 11.2% compared to 12.2%.

In 2021, the eligible labour force in Peterborough County was 123,620. The City of Peterborough accounted for just under 50% of the County’s eligible labour force. The participation rate in the County and City of Peterborough were reported at 56.8% and 57.2%, respectively, which ranks lower than that of Ontario. Both the County and City also experienced higher unemployment rates in 2021 than Ontario at 12.8% and 14.7%, respectively.

The dominant occupational groups for the City of Kawartha Lakes were:

- trades, transport and equipment operators, and related occupations (25.4%)

- sales and service occupations (24.7%)
- business, finance, and administration occupations (13.7%)

The dominant occupational groups for Peterborough County were:

- sales and service occupations (27%)
- trades, transport and equipment operators, and related occupations (18.5%)
- business, finance, and administration occupations (14.2%)

Table 21 also presents the average employment income for employed individuals and average household income for 2020 based on the 2021 Census of Population for the City of Kawartha Lakes and Peterborough County along with the urban hub of the City of Peterborough. Data was not available for the Town of Lindsay.

The City of Kawartha Lakes and Peterborough County reported similar average incomes with the City of Kawartha Lakes ranking slightly above. Both communities rank under the provincial average in all categories. The City of Peterborough (located in Peterborough County) had the lowest average employment and household incomes in 2020.

Table 21: Average Employment Incomes for City of Kawartha Lakes and Peterborough County^{129,130,131}

Indicator	City of Kawartha Lakes		Town of Lindsay		Peterborough County		City of Peterborough	
	Total Population	Indigenous Population	Total Population	Indigenous Population	Total Population	Indigenous Population	Total Population	Indigenous Population
Labour Force (2021)								
Population aged 15 years and over	66,700	1,775	18,720	M	123,620	5,500	69,640	3,075
Labour Force	36,495	1,130	9,655	M	70,275	3,260	39,845	1,775
Employed	32,405	965	8,455	M	61,275	2,575	34,000	1,340
Unemployed	4,095	170	1,200	M	8,995	685	5,845	435
Participation Rate	54.7%	63.7%	51.6%	M	56.8%	59.3%	57.2%	57.7%
Unemployment Rate	11.2%	15%	12.4%	M	12.8%	21.0%	14.7%	24.5%
Job Permanency (2021)								
Permanent position	25,355	M	6,975	M	48,625	M	28,330	M
Temporary position	4,165	M	1,245	M	8,950	M	5,525	M

¹²⁹ Information in this table was provided from census data (Statistics Canada, 2025).

¹³⁰ It should be noted that Indigenous peoples often do not participate in censuses as frequently as non-Indigenous populations and therefore these statistics may not accurately represent the number of individuals living within the area who may identify as First Nation, Métis or Inuit.

¹³¹ "M" is used to denote missing data where data were not available from a desktop search of core sources.

Indicator	City of Kawartha Lakes		Town of Lindsay		Peterborough County		City of Peterborough	
	Total Population	Indigenous Population	Total Population	Indigenous Population	Total Population	Indigenous Population	Total Population	Indigenous Population
Self-employed	5,980	125	1,140	M	10,680	365	4,645	145
Employment by National Occupational Classification								
Legislative and senior management occupations	275	0	60	M	730	25	325	15
Business, finance and administration occupations	4,855	145	1,205	M	9,660	365	5,135	190
Natural and applied sciences and related occupations	1,635	60	400	M	4,115	145	2,440	85
Health occupations	2,920	85	1,015	M	6,750	265	4,125	155
Occupations in education, law and social, community and government services	3,950	130	1,300	M	9,365	460	5,600	260
Occupations in art, culture, recreation and sport	725	30	185	M	1,925	60	1,160	30

Indicator	City of Kawartha Lakes		Town of Lindsay		Peterborough County		City of Peterborough	
	Total Population	Indigenous Population	Total Population	Indigenous Population	Total Population	Indigenous Population	Total Population	Indigenous Population
Sales and service occupations	8,785	265	2,720	M	18,390	930	11,795	570
Trades, transport and equipment operators and related occupations	9,030	260	1,790	M	12,620	650	5,665	285
Natural resources, agriculture and related production occupations	1,695	50	210	M	1,835	70	560	10
Occupations in manufacturing and utilities	1,635	45	480	M	2,860	100	1,705	40
Income (2020)								
Average employment income of full-year full-time workers	\$71,900.00	\$68,400.00	\$66,300.00	M	\$71,300.00	\$56,950.00	\$67,600.00	\$55,900.00
Average employment	\$43,920.00	\$39,700.00	\$45,800.00	M	\$43,280.00	\$34,200.00	\$40,200.00	\$31,520.00

Indicator	City of Kawartha Lakes		Town of Lindsay		Peterborough County		City of Peterborough	
	Total Population	Indigenous Population	Total Population	Indigenous Population	Total Population	Indigenous Population	Total Population	Indigenous Population
income of all recipients								
Average total household income	\$100,200.00	\$104,000.00	\$84,100.00	M	\$97,700.00	\$86,000.00	\$87,800.00	\$79,300.00

3.5.4.3 Regional Economic Context of the MS-WTFNs

Across the regions surrounding the NNW site, individuals identifying as First Nation, Métis, and Inuit, represent a relatively small share of the total population but face persistent disparities in employment outcomes, income levels, and occupational opportunities. In 2021, Indigenous peoples accounted for approximately 3.3% of the labour force in Northumberland County, 2.6% in Port Hope, 2.9% in Cobourg, and 2.5% in Hamilton Township. These figures are broadly consistent with provincial averages but underscore that Indigenous communities are a small but significant component of the local workforce. In Durham Region, Indigenous peoples made up 1.9% of the total labour force, and in Clarington 2.6%. The proportion was higher in Peterborough County, at 4.4%, reflecting the presence of nearby First Nations and urban Indigenous populations concentrated in the City of Peterborough.

Labour force participation rates for Indigenous populations are mixed, but in several cases, they meet or exceed those of the total population. For example, in Northumberland County, Indigenous participation was 61.7% compared to 54.6% for the overall population, while in Port Hope, the gap was even larger; 67.1% for Indigenous peoples compared to 56.0% for all residents. In Hamilton Township, Indigenous participation was 76.9%, far higher than the 62.6% reported for the total population. However, high participation has not translated into equivalent employment outcomes. Unemployment among Indigenous workers was consistently elevated. In Northumberland County, Indigenous unemployment reached 12.9% compared to 10.9% overall, while in Cobourg, Indigenous unemployment was 14.8% compared to 12.4% overall. In Peterborough County, unemployment for Indigenous workers was 21.0% compared to 12.8% overall, and in the City of Peterborough, it was 24.5%, almost 10 percentage points higher than the total population. These figures suggest Indigenous workers are both active participants in the labour force and disproportionately exposed to employment instability.

Income disparities are also pronounced. Average employment income for Indigenous full-year, full-time workers in Northumberland County was \$64,000 compared to \$72,900 for the total population. In Port Hope, the gap was wider—\$52,000 for Indigenous workers compared to \$74,500 overall. Similar patterns are seen in Cobourg, where Indigenous incomes averaged \$73,000 compared to \$73,900 for the total population, indicating near parity in this municipality. Hamilton Township showed a higher Indigenous average of \$88,000 compared to \$81,200, though this likely reflects small sample sizes. On the whole, Indigenous workers consistently earned less than their non-Indigenous counterparts, often by margins of \$8,000 to \$20,000 annually. Income disparities are also evident when looking at all employment recipients. In Port Hope, Indigenous recipients earned an average of \$34,000 compared to \$46,400 overall. In Northumberland, Indigenous incomes averaged \$40,000 compared to \$44,720 overall. Household income figures follow the same trend: in Port Hope, Indigenous households reported \$101,000 compared to \$106,100 overall; in Cobourg, Indigenous households earned \$96,000

compared to \$95,800 overall, again showing some variation but generally lower earnings across most regions.

Occupational patterns further illustrate structural inequities. Indigenous workers are disproportionately represented in lower-wage sectors such as sales and service and trades, transport, and equipment operations. In Northumberland County, 410 Indigenous workers were employed in sales and service occupations, compared to 10,065 total workers. Similarly, 315 Indigenous workers were employed in trades and transport, compared to 8,655 overall. These concentrations reflect both regional demand and barriers to entry into higher-wage, knowledge-based sectors. Representation in business, finance, and administration occupations was limited (190 Indigenous workers compared to 5,535 overall), and Indigenous workers were nearly absent in natural and applied sciences and senior management positions. This occupational concentration restricts access to higher paying, more stable employment and contributes to income disparities.

The disparities between Indigenous and non-Indigenous populations in the regional economy are significant and persistent. While Indigenous populations often demonstrate equal or higher levels of labour force participation, their unemployment rates remain substantially higher, their representation in professional and management occupations is limited, and their average incomes are consistently lower. These inequities reflect systemic barriers, including limited access to training, education, transportation, and stable employment opportunities. For communities near the NNW site, such as the MS-WTFNs and urban Indigenous populations in Peterborough and Durham, these challenges compound long-standing socio-economic gaps.

Addressing these disparities is critical in the context of regional economic development. Major projects such as the NNW Project present opportunities to help close these gaps by creating equitable pathways for Indigenous participation through employment, procurement, skills training, and business partnerships. Without deliberate measures to address systemic inequities, Indigenous populations risk being left behind in future growth, perpetuating cycles of underemployment and income inequality. By explicitly acknowledging and addressing these differences, the economic benefits of development can be more broadly shared, contributing to reconciliation and long-term community wellbeing.

4. Part D – Federal, Provincial, Territorial, Indigenous and Municipal Involvement

The relevant government authorities involved in the NNW Project have been identified below, including any financial support, permits, licenses, or approvals required from these government authorities where applicable. The section also highlights anticipated coordination efforts and consultations with these government authorities throughout the IA process for the NNW Project.

The Crown has a DtCA¹³² Rights-holding First Nations whose constitutionally protected section 35 and Treaty rights are impacted, or have the potential to be impacted, by the NNW Project. Those First Nations will be afforded opportunities to work together with various Crown departments when issues are raised that may require Accommodation under the Crown's Duty to Consult in the event the project proceeds. These discussions should begin at the earliest opportunity in the process to allow for all parties to understand the issues and work collaboratively to come to mutually satisfactory solutions, whenever possible. Where a First Nation has established there is an infringement on rights, and a mutually satisfactory solution is not available, the Crown must legally justify any rights infringement.

Through UNDA, the Government of Canada has affirmed UNDRIP as a universal international human rights instrument with application in Canadian law. The federal government has stated that UNDRIP provides a framework for reconciliation, healing and peace, as well as harmonious and cooperative relations based on the principles of justice, democracy, respect for human rights, non-discrimination and good faith.¹³³ UNDA sets out a statutory framework for the implementation of UNDRIP into federal law. The Supreme Court of Canada has stated that it is *"through this Act of Parliament that [UNDRIP] is incorporated into the country's domestic positive law."*¹³⁴

OPG is closely monitoring the federal government's efforts, in consultation with Indigenous peoples, to implement UNDRIP and to ensure that the laws of Canada are consistent with UNDRIP. Further, over the past several years, Canadian courts have begun to consider and

¹³² We have been instructed that the Crown has not delegated the procedural aspects of the DtCA to OPG. The CNSC has also instructed the MS-WTFNs that the IPD is an OPG document and not the jurisdiction of the CNSC. Under these parameters, we do not consider our contributions as part of consultation as it related to the DtCA. Until the Crown initiates the DtCA through a scoping analysis, nothing the MS-WTFNs have contributed to the IPD is to be used as part of the Crown's consultation record.

¹³³ *Backgrounder: United Nations Declaration on the Rights of Indigenous Peoples Act.*

¹³⁴ *Reference re An Act respecting First Nations, Inuit and Métis children, youth and families*, 2024 SCC 5 at para 15.

interpret the impact of the UNDA on the constitutional principles of consultation and the Honour of the Crown.

OPG has engaged extensively with the 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 FPIC, as a mechanism to enable their meaningful participation in decisions that may impact their treaty and traditional territories. 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.

OPG acknowledges that any decision statement issued under this IA process must meet the applicable legal and constitutional requirements, and that the government must act consistently with the Honour of the Crown – and if those requirements are not met, any shortcomings may be addressed in court. OPG intends to continue to engage collaboratively with the WTFNs to understand their perspective on those requirements, and to ensure that any decision ultimately complies with the law and Canada's constitution.

4.1 Federal Financial Support

OPG has considered federal financial support through the following avenues:

- Investment Tax Credits (ITC)
- Green Bond Framework.

Canada's incentives in the form of ITCs are available to help reduce the capital cost of clean energy technologies, including nuclear projects. 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.

Canada's Department of Finance has updated the federal Green Bond Framework to include nuclear technologies as eligible green expenditures (Government of Canada, 2023). This change is a positive step forward in aligning Canada's climate and environmental priorities, supporting nuclear investment as a vital part of Canada's clean-energy future. OPG may explore potential for future federal funding, but this is not confirmed at this time.

4.2 Federal Land Use

The NNW Project is not located on any federal lands, including reserve lands. As such, any Acts or regulations only applicable to projects on federal lands do not apply to the NNW Project.

4.3 Rights-Holding First Nations and Regulatory Contexts

A new nuclear power project in Ontario will require licences, permits and approvals from multiple jurisdictions, including federal, provincial, and municipal authorities. The potentially required licences, permits, approvals and authorizations for each government authority have been provided in Annex C. Permits, Licences, Approvals and Authorization.

4.3.1 *Rights-Holding First Nations*

For the purposes of the NNW Project, the WTFNs have established and asserted Aboriginal and Treaty rights and authority¹³⁵ in their treaty territories.

The MS-WTFNs retain our sovereign authority to make decisions about our homelands and Treaty Territories including, but not limited to, any changes to land and water use, including the establishment of nuclear facilities, the storage and transportation of nuclear waste, and regarding real and potential adverse impacts and effects of the NNW Project to our place, our Relatives, our Rights, our identity, our ways of knowing and being, and our wellbeing.

The WTFNs include:

The Mississauga communities of:

- Alderville First Nation
- Curve Lake First Nation
- Hiawatha First Nation
- Mississaugas of Scugog Island First Nation.

The Chippewa communities of:

- Beausoleil First Nation
- Chippewas of Georgina Island First Nation
- Chippewas of Rama First Nation.

¹³⁵ OPG has used the term 'authority' here to acknowledge the MS-WTFNs' articulation of their inherent jurisdiction, sovereignty, laws, and decision-making responsibilities within their homelands and treaty territories, including the lands and waters where the NNW Project is proposed.

4.3.2 *Federal*

The following is a preliminary list of federal authorities that have (or could have) powers, duties, or functions related to the assessment of real and potential environmental impacts:

- Impact Assessment Agency of Canada (the Agency)
- Canadian Nuclear Safety Commission (CNSC)
- Environment and Climate Change Canada (ECCC)
- Transport Canada
- Fisheries and Oceans Canada (DFO)
- Natural Resources Canada (NRCan)
- Health Canada.

4.3.3 *Provincial*

The following is a preliminary list of provincial authorities that have (or could have) powers, duties, or functions related to the assessment of real and potential environmental impacts:

- Ministry of the Environment, Conservation and Parks (MECP)
- Ministry of Natural Resources (MNR)
- Minister of Solicitor General
- Ministry of Citizenship and Multiculturalism (MCM)
- Ministry of Transportation (MTO).

4.3.4 *Municipal*

The following is a preliminary list of municipal authorities that have (or could have) powers, duties, or functions related to the assessment of real and potential environmental impacts:

- Northumberland County
- Municipality of Port Hope.

4.3.5 *Other Local Authorities*

The following is a preliminary list of other local authorities that could have powers, duties, or functions related to the assessment of environmental effects:

- Ganaraska Region Conservation Authority (GRCA).

5. Part E – Real and Potential Impacts of the Project (Preliminary)^{136,137}

As the production of nuclear energy is declared to be to the general advantage of Canada in the Nuclear Energy Act (2000), the NNW Project is considered to be a federal work or undertaking as defined under the Canadian Environmental Protection Act (1999). Therefore, real and potential impacts within federal jurisdiction, as defined under the IAA include changes to the environment or to health, social, and economic conditions as a result of the NNW Project.

The following section headings represent a preliminary identification of real and potential impacts of the NNW Project to:

- fish and fish habitat, aquatic species, and migratory birds within the Legislative Authority of Parliament/real and potential adverse impacts and effects to aspects of place within the legislative authority of parliament (Section 5.1)
- Relatives (species) of specific interest or concern to the MS-WTFNs (Section 5.2)
- federal lands or lands outside of Ontario (Section 5.3)
- marine environment or interprovincial/international waters (Section 5.4)

¹³⁶ The language ‘real and potential impacts’ based on feedback received from the MS-WTFNs. This language is intended to reflect OPG’s acknowledgement that the MS-WTFNs have identified that portions of the NNW site were subject to previous uses which has caused impacts to their communities; in particular, the eastern portion of the site was originally intended to be developed in the 1970s for an oil powered thermal generating station, and while construction was never completed, certain structures remain including a powerhouse and chimney stack; and the western portion is leased for partial agricultural development. In assessing the NNW Project, OPG will take into account these prior uses, which the MS-WTFNs consider to have caused ‘real impacts’, and in particular, the cumulative effects that may arise as a result of such prior activities. Further, OPG understands the MS-WTFN’s perspective that the NNW Project will likely have certain impacts that may not be fully mitigated, and that such impacts are considered ‘real impacts’ by the MS-WTFNs as opposed to purely hypothetical impacts. By using the language ‘real and potential impacts’, OPG intends to respect its collaborative discussions with the MS-WTFNs and does not wish to convey that certain impacts are less significant, or will be assessed with less scrutiny, as compared to others.

¹³⁷ The MS-WTFNs acknowledge that within the *Guide to Preparing an Initial Project Description and a Detailed Project Description*, the Agency requires a description of ‘Potential Effects of the Project’ be included in the IPD. While we appreciate the intention of this terminology to ensure that potential effects of the NNW Project are identified and considered, it does not accurately reflect our lived reality and ways of knowing and being. We assert that real adverse impacts and effects associated with the NNW Project are already occurring to our communities and our Relatives prior to the completion of an IA. OPG ownership of the NNW site continues to interrupt our relationships with the Lands, Waters, and all Relatives of the area including the shorelines, points, wetlands, and creek mouths which were specifically protected by Treaty; Feasibility activities/pre-assessment studies are already adversely impacting the Lands, Waters and all Relatives, including *kina ngadmawaad* present within the site. i.e. borehole drilling, MET tower installation etc. Therefore, we have included a terminology change within this document to include ‘real and potential adverse impacts and effects’.

- Indigenous peoples of Canada/real and potential adverse impacts and effects to Indigenous peoples within Canada (Section 5.5)
- Indigenous physical and cultural heritage, and structures, sites or things of significance/real and potential adverse impacts and effects to Indigenous cultural landscapes and places of cultural and spiritual significance (Section 5.6)
- current use of land and resources for traditional purposes/real and potential adverse impacts and effects to Indigenous relationships with Lands, Waters and all Relatives (Section 5.7)
- health, social, or economic conditions of Indigenous peoples of Canada/real and potential adverse impacts and effects to the health, social, or economic context and conditions of Indigenous peoples within Canada (Section 5.8).

A preliminary summary of all real and potential impacts and potential non-negligible adverse effects¹³⁸ and potential mitigation measures is provided in Section 5.11. Additionally, a preliminary estimate of waste and waste emissions (Section 5.10) including GHG emissions (Section 5.9) that could be generated by the NNW Project have been provided. OPG will continue to collaborate with MS-WTFNs and other Rights-holding First Nations and interested Indigenous communities to identify real and potential impacts throughout the NNW Project.

We have provided preliminary input regarding real and potential adverse impacts and effects of the NNW Project on our Rights, Relatives, and communities. Our ability to identify real and potential adverse impacts and effects of the NNW Project is limited, as we have yet to be presented with detailed plans, including designs, location of infrastructure, nuclear waste management strategies, including storage and transportation, etc. In addition to requiring additional information about the NNW Project, we have to undertake additional MS-WTFNs-led studies, including a MS-WTFNs-led Impact Assessment, and conduct community engagement. These steps will enable us to have a more fulsome understanding of the total real and potential adverse impacts and effects of the NNW Project on our homelands, Relatives, Rights, and communities.

We have contributed to this IPD, in good faith, facets of our ways of knowing and being which are based on our intergenerational experiences, memories, stories and Knowledge. Our

¹³⁸ The MS-WTFNs raise concern regarding the use of term ‘non-negligible adverse effects’. All effects to the Lands, Waters and all Relatives must be accounted for and paid attention to. ‘Non-negligible’ effects are often considered those which are unnoticeable, however, this qualification is related to empirical evidence or observation and does not account for the spiritual and relational interconnectedness of our people to our place and to our Relatives. We require that OPG, the Agency, and CNSC work with us to develop a shared categorization of adverse effects.

contributions are intended to underscore the centrality of the NNW site, and surrounding areas, to our identity, culture, values, Rights, and wellbeing. We want to ensure our perspectives, concerns, and the real and potential adverse impacts and effects of the NNW Project to our communities, and ways of life, are captured early on in the IA process.

We wish to acknowledge the Lands, the Waters and all our Relatives, which have provided gifts, instructions, and Knowledge, that have informed our contributions to this IPD. We wish to acknowledge that many of our Relatives are already being adversely impacted at the NNW site through preliminary studies and early assessment activities related to the NNW Project.

5.1 Real and Potential Impacts to Components of the Environment within the Legislative Authority of Parliament (Preliminary) / Real and Potential Adverse Impacts and Effects to Aspects of Place Within the Legislative Authority of Parliament (Preliminary)

This section is specifically focused on all species that are protected through federal law under the Canadian government, as determined through western science and frameworks.

The MS-WTFNs hold all our Relatives as equally important, and worthy of protection from undue harm, aligned with our responsibilities and laws, regardless of the presence of any designation under Canadian law.

The NNW Project has the potential to impact components of the environment within the legislative authority of Parliament. Section 5.11 identifies real and potential impacts, including potential non-negligible adverse changes to components of the environment under the legislative authority of Parliament, namely:

- fish and fish habitat, as defined in subsection 2(1) of the Fisheries Act
- aquatic species, as defined in subsection 2(1) of the Species at Risk Act
- migratory birds, as defined in subsection 2(1) of the Migratory Birds Convention Act 1994.

Real and potential adverse impacts and effects to our Fish and Bird Relatives, and their habitats, results in impacts to our cultural practices, including harvesting, access to, and quality of, our traditional food and medicine sources, as well as access to, and quality of, socio-economic opportunities for our people. Other Relatives rely on Fish and Bird Relatives, their habitat, and ecological function. Impacts to our Fish and Bird Relatives results in impacts to our identity, to

our Rights, to our spirituality, to our sense of belonging, and to our wellbeing, especially as many Fish and Bird Relatives are part of our clan and spiritual naming systems.

Identification of real and potential impacts of the NNW Project will be determined collaboratively with WTFNs. OPG remains committed to working with MS-WTFN to identify, develop, and implement mitigation and accommodation measures to offset, avoid, mitigate, and compensate for any real or potential impacts that are identified. This may include, but is not limited to, controlling emissions and discharges, restoring removed habitats, and other best management practices as collaboratively identified between OPG and the MS-WTFNs during all phases of the NNW Project.

OPG will work collaboratively with the MS-WTFNs to develop and conduct an environmental monitoring program to assess the effectiveness of mitigation measures and ensure compliance with permits, licences, authorizations and regulations. In addition, the monitoring program will include adaptive management to respond to scientific uncertainty and provide for improvement where required. MS-WTFNs will be included in the development and implementation of environmental monitoring planning and decision making, including, but not limited to, environmental monitoring activities and in the development of avoidance, mitigation, compensation and where required, accommodation measures to address impacts to Aboriginal and Treaty rights. This monitoring may include water quantity and quality, air quality, and the local wildlife populations, enabling adaptive management strategies to address any emerging issues promptly and effectively. Mitigation measures and monitoring programs will be implemented to reduce or eliminate real and potential impacts of the NNW Project on elements of the environment that are within the legislative authority of Parliament.

5.2 Real and Potential Adverse Impacts and Effects to Relatives (Species) of Specific Interest or Concern to the MS-WTFNs (Preliminary)

While all Relatives are significant to us as members of our family, there are certain Relatives that are of specific or unique concern to us, as they may have specific spiritual, or cultural meaning, be part of our traditional food or medicine sources, support our traditional economy, and/or may be territorially rare or endangered. Such Relatives are known to us as being present at the NNW site and surrounding area.

Assessment of real and potential adverse impacts and effects to our Relatives of specific interest or concern has not been fully evaluated or understood. More time is required for our

communities to engage with our members, and to develop appropriate frameworks to support identification of such Relatives, as well as analysis of real and potential adverse impacts and effects to them by the NNW Project. It is important that real and potential adverse impacts and effects of the NNW Project to our Relatives of specific interest or concern be assessed as part of the IA, including through our own MS-WTFNs-led Impact Assessment.

In working collaboratively with the MS-WTFNs, OPG understand that there is high importance in incorporating Indigenous Knowledge into the IA. As such, OPG remains committed to working with MS-WTFNs to undertake site-specific ecological land classification and incorporate Indigenous Knowledge of local species, ecosystems, and cultural values, where mutually agreed upon by the MS-WTFNs and OPG.

5.3 Real and Potential Impacts to Federal Lands or Lands Outside of Ontario (Preliminary)

Any non-negligible adverse changes that the NNW Project may have to federal lands or lands outside of Ontario must be considered. The NNW Project is not anticipated to affect federal lands, the NNW site is not located on nor adjacent to federal lands. The NNW site is situated on the north shore of Lake Ontario approximately 30 km north of the Canadian-U.S. international border that runs through the lake, and approximately 60 km north of the U.S. land mass in New York State. Canada and the U.S. have agreements in place related to water and air quality at transboundary locations including:

- The Great Lakes Water Quality Agreement: Enhances transparency, accountability, and cooperation to ensure the sustainability of the Great Lakes
- The Canada-U.S. Air Quality Agreement (AQA): Promotes cooperation on air quality standards, scientific research, and progress reporting to protect human health and the environment
- The Boundary Waters Treaty: signed in 1909, established the International Joint Commission (IJC). The Treaty stipulates that neither country should pollute boundary waters which could cause injury to health or property in either country. It also upholds protection for watersheds, migratory fisheries, and their habitats.

OPG will consider necessary requirements and steps to communicate, assess, and mitigate potential effects to Lake Ontario that may result in non-negligible adverse changes to boundary or international waters as defined in subsection 2(1) of the Canada Water Act.

Additionally, the nearest provincial border to the NNW Project is approximately 280-300 km west of the Quebec border. Given this distance, no effects on provinces outside of Ontario are anticipated.

5.4 Real and Potential Impacts to Marine Environment or Interprovincial/International Waters

Marine environments refer to the oceans, coastal areas, and tidal waters that fall under federal jurisdiction. As the NNW Project is located on Lake Ontario shoreline 700 km from the nearest ocean, there will be no interactions with marine environments. Therefore, there is no pathway that will result in project-related changes to marine plants as defined under Section 47 of the Fisheries Act and Section 2(1) of the Species at Risk Act (SARA).

The closest interprovincial waters to the NNW site are the St. Lawrence River located approximately 170 km to the east, and the Ottawa River located approximately 280 km to the northeast. Both rivers flow into Ontario and neighbouring Quebec. Considering the distance of these two interprovincial waters from the NNW site, that surface water drainage and ground water flow from the NNW site is to the south away from the Ottawa River, and that impacts to Lake Ontario are expected to be localized, the NNW Project is not anticipated to affect interprovincial waters as a result of “pollution that may be caused by the carrying out of the project.”

5.5 Real and Potential Impacts to the Indigenous Peoples of Canada (Preliminary) / Real and Potential Adverse Impacts and Effects to Indigenous Peoples within Canada (Preliminary)¹³⁹

The following section provides a preliminary understanding of real and potential adverse impacts and effects of the NNW Project on our identity, values, Rights, Relatives, and wellbeing. This is

¹³⁹ The MS-WTFNs acknowledge that within the *Guide to Preparing an Initial Project Description and a Detailed Project Description*, the Agency requires a description of any impact of the project to Indigenous peoples of Canada including changes to Indigenous peoples’ physical and cultural heritage; current use of lands and resources for traditional purposes, and; structures, sites, or things of historical, archaeological, paleontological, or architectural significance, as well as the health, social, or economic conditions of Indigenous peoples of Canada. While we appreciate the intention of such a description, these phrases do not accurately reflect the lived reality of our people, the full scope of real and potential adverse impacts or effects, or our ways of knowing and being. Respectfully, our communities are not ‘of’ Canada. We are not owned or possessed by any entity. We pre-

not an exhaustive understanding, but rather, is based on the limited information that has been presented to us. More time, community engagement, studies, and analysis, are required to more fully identify real and potential adverse impacts and effects of the NNW Project to our communities. We are working to develop appropriate frameworks, based on our ways of knowing and being, to more accurately identify, understand, evaluate, and analyze the real and potential adverse impacts and effects of the NNW Project on our identity, Rights, Relatives, values, ways of knowing, and wellbeing. Such frameworks will require significant resources and time to complete and may be explored as part of our MS-WTFNs-led Impact Assessment.

OPG is committed to working with MS-WTFNs to identify, understand, avoid, reduce, eliminate, or compensate and where required, accommodate, real and potential impacts of the NNW Project on MS-WTFNs' Rights, values, and ways of being.

OPG will work together with MS-WTFNs to meaningfully resource MS-WTFNs-led frameworks, assessments, or studies, where identified. OPG is committed to ensuring that any MS-WTFNs' Knowledge or data shared in relation to the NNW Project, will only be used as directed and will inform the overall understanding of the NNW Project. This includes, but is not limited to, real impacts of historical site use and early exploration (e.g., geotechnical investigations), and potential impacts of the NNW Project, as well as avoidance, mitigation, compensation and, where appropriate, accommodation strategies that are required to avoid or minimize such impacts.

5.5.1 Understanding Real and Potential Adverse Impacts and Effects to the MS-WTFNs (Preliminary)

The covering of our sacred land with concrete, tar, roads and gravel and machinery running all over the place isn't going to stop. It can't. I can't see it. The disturbance of our sacred grounds is going to continue. It's going to continue, the way I see it,

existed the creation and formation of Canada, whose jurisdiction, and sovereignty, are imposed over our pre-existing sovereignty, and Rights. As such, we have chosen a different title and term for this section which is meant to meet the requirements of the IMTLR, while utilizing different language to better reflect our values, knowledge, and lived experiences, as well as encompass a more fulsome understanding of the scope of real and potential adverse impacts and effects of the NNW Project.

*forever beyond my death. I worry about my grandchildren with this kind of thing.
(Michi Saagiig Anishinaabe Elder Gidigaa Migizi-ban)¹⁴⁰*

Identifying and understanding real and potential adverse impacts and effects of the NNW Project on our communities goes beyond simply understanding physical impacts to the physical environment. It requires, at minimum, consideration and application of our ways of knowing and being, which fundamentally differ from western thought and examination. It is not fully possible to express, or understand, real and potential adverse impacts and effects to our communities, through western thought, or when limited to, and interpreted through English.

Our worldviews are land and place-based; We are part of the land and part of the place. We value, are connected to, and maintain relationships with the Lands, Waters and all Relatives that we share place with.

Relationship and kinship are central to Anishinaabeg life. Nawendiwin (the art of being relatives, or the art of being related) founds and sustains legal responsibilities and Rights within kinship relations, which can encompass both human and other than-human beings. Nawendiwin is a dynamic and ongoing process in which kinship legal relations are created and upheld in diverse ways (through biology, clans, adoption processes, community roles, etc.) The principle of Nawendiwin includes an ethic of interrelatedness between human and non-human communities and creates obligations and responsibilities between the parties (Williamson & et al. , 2021).

We understand humans as an integral part of the landscape. Our Relatives include human and non-human Beings. Lands, Waters, Wind, Rocks, Plants, Animals, and Little Spirits are examples of non-human Being Relatives. They are alive, have a spirit, and share relationship, and kinship connections with us. Our human being Relatives include our families, clans, sister-communities, other people from different cultures, and our *Aanikoobigiganaanan*. As noted by Leanne Betasamosake Simpson in her book *As We Have Always Done: Indigenous Freedom Through Radical Resurgence*, Michi Saagiig Anishinaabeg are part of “a series of raditing relationships with plant nations, animal nations, insects, bodies of water, air, soil, and spiritual beings in addition to the Indigenous nations with whom we share parts of our territories” (Simpson, 2017).

¹⁴⁰ This Knowledge was shared by Michi Saagiig Anishinaabe Gidigaa Migizi-ban (Doug Williams-ban), as recorded in an undated interview, provided by CLFN for the purposes of informing this IPD.

Michi Saagiig Anishinaabe Elder Gidigaa Migizi-ban (Doug Williams-ban) shared many times that relationships between our Relatives are symbiotic.¹⁴¹ There is a delicate balance of respect, reciprocity, and responsibility within those relationships that form the basis of our responsibilities, Knowledge and ways of being. He explained:

*All we ask is – we meaning those people who try and promote the good life, what we call Manidoo Minising – that people pray a thank you – nothing more – and give some tobacco. That’s really symbolic of that good life and a recognition of where we came from, how honourable that is and how much of a gift that is actually from creation, that we are able to be here. Everything is provided for us. Everything we need to live and exist in beautiful ways is right here.*¹⁴²

Our Rights include protection for our identity, our responsibilities, our values and our ways of knowing and being. Western thought has often limited its understanding of our Rights to what it considers ‘traditional activities’, such as harvesting. While such activities flow from our identity, our responsibilities, our values, and our ways of knowing and being, they do not encompass a complete or accurate understanding of our Rights.

As our identity, responsibilities, values, and ways of knowing and being, flow from place, any adverse impacts or effects to the Lands, Waters and all Relatives represent impacts to our Rights. Our *Aanikoobigiganaanan* specifically sought to protect aspects of our identity and our ways of knowing and being, through their pursuit of Treaty. As *Michi Saagiig Anishinaabeg* Elder Gidigaa Migizi-ban (Doug Williams-ban) noted,

The Nishnaabeg always wanted to continue to live our lifestyle, our governance, our culture as we had always done. They thought that we had enough land to share some of it with the settlers. We were not giving up anything in making treaties (Williams-ban, 2018).

Our Treaties protect aspects of our cultural landscapes and our relationships with our Relatives within our homelands. As such, adverse impacts and effects to the Lands, Waters and all Relatives, represent impacts to our Treaty Rights, as well as to our identity, responsibilities, values, and ways of knowing and being.

¹⁴¹ This Knowledge was shared by *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban), as recorded in an undated interview, provided by CLFN for the purposes of informing this IPD.

¹⁴² This Knowledge was shared by *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban), as recorded in an undated interview, provided by CLFN for the purposes of informing this IPD.

5.5.1.1 Examples of Real and Potential Adverse Impacts and Effects to the MS-WTFNs (Preliminary)

The taking up of the Lands and Waters into private and Crown ownership, the imposition of Canadian law, regulation, and policy, and direct and indirect changes to our place caused by Euro-Canadian settlement, and the subsequent development of our homelands and Treaty Territories, are examples of disruption to our natural relationships with our Relatives. These impositions have also disrupted the natural relationships between our Relatives and the balance established through natural law.

In her thesis, *Nishnaabeg Encounters: Living Indigenous Landscapes*, Madeline Whetung wrote that the arbitrary boundaries created and imposed by the Crown, and through private ownership, “displace Indigenous land-based relationships and the place-based cultures that emanate out of them as they become restricted to small plots of land” (Whetung, 2016). Disruption to our relationships and the balance of natural law results in disruption to our Rights, to our ways of knowing and being, to our sense of identity and belonging, and to our wellbeing.

Given that our ways of knowing and being, are place-based and tied to our relationships with our Relatives, the loss of access to our cultural landscapes and to our place, through private and Crown ownership, has had profound impacts on our communities. In an undated interview, provided by CLFN, *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban) asked, “How can I sustain my type of culture that I am used to without land?”

Adverse impacts and effects to our homelands, including to the wellbeing of our Relatives, have direct and indirect impacts on the wellbeing of our communities. In other words, human wellbeing is inseparable from land wellbeing (Callicott & Nelson, 2004). Changes in the wellbeing of our Relatives can result in the loss of our cultural practices. For example, when discussing the impacts of the Trent Severn Waterway on the *Michi Saagiig Anishinaabeg*, Madeline Whetung shared,

When I asked Doug Williams [Gidigaa Migizi-ban] about smoking fish, he told me that this was lost because in order to smoke fish, one needs fatty fish. The pickerel that people continue to fish is not fatty enough, and our eel and salmon relatives have long ceased making their ways up our waters as a direct result of the dams (Whetung, 2019).

Decline in Animal and Plant Relative populations, and the movement of our Relatives to other locales has direct and indirect impacts on our Rights and our wellbeing. As shared by Tom Cowie, Consultation Indigenous Knowledge Lead at HFN, a loss or disruption to any one species (Relative) results in loss and disruption to all our Relatives, including our people. Aspects of the complexity of such impacts has been examined by Madeline Whetung in her article

“(En)gendering Shoreline Law: Nishnaabeg Relational Politics Along the Trent Severn Waterway”:

“the physical absence of [Relatives] in our territory today alters practices that bring to life particular relationships and thus alters a contingent relational politics.” (Whetung, 2019).

Indeed, Basil Johnston, *Anishinaabeg* writer and storyteller, wrote that “[w]ith the departure of the animal beings the quality and tone of life changed” (Johnston, 1976).

We are developing frameworks, based on our ways of knowing and being, to more accurately understand, identify, evaluate, and analyze real and potential adverse impacts and effects of the NNW Project to our people, our Relatives, our identity, our ways of life, and our wellbeing, including through our own MS-WTFNs-led Impact Assessment.

5.5.2 Identifying Real and Potential Adverse Impacts and Effects to the MS-WTFNs (Preliminary)

There are limitations to identifying real and potential adverse impacts and effects of the NNW Project, to our communities through conventional analysis. Typically, impact analysis is limited to examining potential impacts to the physical and biological environments, as understood through western science. This approach leaves several gaps and must be expanded to include real and potential adverse impacts and effects to our Rights, identity, values, relationships, responsibilities, spirituality, and ways of knowing and being. Any such impacts which are identified, must then be understood, evaluated, and analyzed, through our own frameworks, including, but not limited to a MS-WTFNs-led Impact Assessment.

5.5.2.1 Real and Potential Adverse Impacts and Effects to the Physical Aspects of Place as Identified through Western Science (Preliminary)

A preliminary assessment of real and potential impacts and effects of the NNW Project to the physical aspects place, as understood through western science, have been identified within this IPD. This analysis has been limited by time constraints, the scope of what is currently known about the NNW Project, and the scope of data collected to date. A more fulsome understanding of real and potential adverse impacts and effects to physical aspects of place will continue to evolve through assessment activities undertaken by OPG. It is our intention that the IA will be informed, as well, by our MS-WTFNs-led Impact Assessment.

A preliminary overview of concerns related to real and potential adverse impacts and effects to aspects of place, which includes the physical environment, as understood through our values and ways of knowing and being, is presented in Table 22. This overview is based on initial project

plans and does not capture the full breadth of real and potential adverse impacts or effects. We will need to review all project components, plans, locations, and proposed mitigation measures, as well as carry out additional studies, and community engagement, to more fully identify and understand real and potential adverse impacts and effects to be assessed throughout the IA process. We look forward to carrying out a MS-WTFNs-led review of the plans, and undertaking additional studies and assessments, including and MS-WTFNs-led Impact Assessment, to better understand real and potential adverse impacts and effects of the NN W Project.

Table 22: Preliminary Overview of Concerns Related to Real and Potential Adverse Impacts and Effects to Relatives and Place

Relative/ Aspect of Place	Sub-Aspect	Project Phase	Potential Source of Real and Potential Adverse Impacts and Effects	Real and Potential Impacts and Effects to Relatives and Place
<i>Nodin</i> (Air)	NA	Site Preparation and Construction	<ul style="list-style-type: none"> • fugitive dust emissions from excavation and grading • emissions from construction equipment and vehicle traffic • soil disturbance and excavation releasing stored carbon (CO₂ and CH₄) • vegetation clearing reduces carbon sequestration 	<ul style="list-style-type: none"> • degradation of local air quality, with associated impacts on health and wellbeing of human and non-human Relatives • impacts on plant health and productivity from air pollution • potential respiratory effects to animals and humans • airborne deposition affecting water quality via deposition of dust and contamination • contribution to greenhouse gas emissions and climate change
<i>Nodin</i> (Air)	NA	Operation and Maintenance	<ul style="list-style-type: none"> • emissions from operational equipment • release of air pollutants and radiological substances • increased traffic emissions 	<ul style="list-style-type: none"> • long-term reduction in air quality • potential for cumulative air pollution impacts • health risks to nearby humans and Relatives • contribution to greenhouse gas emissions and climate change
<i>Nodin</i> (Air)	NA	Decommissioning	<ul style="list-style-type: none"> • dust generation from dismantling activities • emissions from heavy equipment • potential release of stored contaminants 	<ul style="list-style-type: none"> • uncertainty about long-term air quality degradation during decommissioning • uncertainties about whether air quality will be restored over time

Relative/ Aspect of Place	Sub-Aspect	Project Phase	Potential Source of Real and Potential Adverse Impacts and Effects	Real and Potential Impacts and Effects to Relatives and Place
				<ul style="list-style-type: none"> contribution to greenhouse gas emissions and climate change during decommissioning activities
<i>Nibi</i> (Waters)	NA	Site Preparation and Construction	<ul style="list-style-type: none"> excavation for intake pipe installation in <i>Gchi Nibi</i> disposal of spoil material on the Lakebed sediment disturbance and resuspension potential contamination from construction runoff and spills wetland or shoreline alteration disturbance of organic-rich sediments on the Lakebed potentially releasing CO₂ or methane 	<ul style="list-style-type: none"> increased sedimentation and turbidity degrading water quality with associated health and wellbeing impacts on human and non-human Relatives alteration of water chemistry impacting aquatic Relatives with permeable skin (e.g., amphibians) disruption and potential destruction of aquatic vegetation and wetland ecosystems/plant communities reduction in availability of clean water potential bioaccumulation of contaminants in the aquatic food web contribution to greenhouse gas emissions and climate change
<i>Nibi</i> (Waters)	NA	Operation and Maintenance	<ul style="list-style-type: none"> thermal discharge from water returning to <i>Gchi Nibi</i> radiological and chemical effluents from plant operations 	<ul style="list-style-type: none"> increased water temperature negatively affecting sensitive aquatic Relatives exposure to radiological and chemical pollutants impacting

Relative/ Aspect of Place	Sub-Aspect	Project Phase	Potential Source of Real and Potential Adverse Impacts and Effects	Real and Potential Impacts and Effects to Relatives and Place
			<ul style="list-style-type: none"> • continuous water intake impacting aquatic organisms • runoff and stormwater discharge from increased impervious runoff 	<p>health and reproduction of aquatic Relatives</p> <ul style="list-style-type: none"> • degradation of water quality affecting access and safety • reduction in aquatic plant productivity and diversity • disruption of ecological functions of wetlands and riparian zones
<i>Nibi</i> (Waters)	NA	Decommissioning	<ul style="list-style-type: none"> • removal of intake structures and site restoration • sedimentation and turbidity from dismantling activities • potential for contaminant release during deconstruction 	<ul style="list-style-type: none"> • water quality disturbances impacting aquatic Relatives • uncertainties about water quality and habitat conditions post-decommissioning • uncertainty about the potential and efficacy of re-establishment of native aquatic vegetation and wetland function • uncertainty about long-term water access and quality for cultural practices
<i>Aki</i> (Earth)	NA	Site Preparation and Construction	<ul style="list-style-type: none"> • blasting, excavation, and earth grading • soil and rock removal • alteration of natural landforms • soil disturbance releasing stored carbon into the atmosphere 	<ul style="list-style-type: none"> • loss or damage to cultural landscapes, cultural heritage, archaeological sites or ancestral burials • disruption of relationships with the Lands, with associated exacerbated impacts on the wellbeing of our communities

Relative/ Aspect of Place	Sub-Aspect	Project Phase	Potential Source of Real and Potential Adverse Impacts and Effects	Real and Potential Impacts and Effects to Relatives and Place
				<ul style="list-style-type: none"> increased erosion potential affecting nearby terrestrial or aquatic areas (see respective sections) contribution to greenhouse gas emissions and climate change from construction activities
<i>Aki</i> (Earth)	NA	Operation and Maintenance	<ul style="list-style-type: none"> chemical contamination of soils or bedrock through spills or leaks 	<ul style="list-style-type: none"> loss of access to places of spiritual and cultural significance, landscapes and Relatives indirect impacts to terrestrial and aquatic systems through altered soil-water interactions
<i>Aki</i> (Earth)	NA	Decommissioning	<ul style="list-style-type: none"> removal of infrastructure, foundations, and waste soil disturbance during regrading and site restoration 	<ul style="list-style-type: none"> soil disturbance during regrading and site restoration opportunity to stabilize disturbed landforms and soil structures uncertainty about potential direct relationships with land uncertainty about long-term erosion and runoff
Fish Relatives	Amphibian and Reptile Relatives	Site Preparation and Construction	<ul style="list-style-type: none"> wetland infilling or alteration noise, vibrations and dust from heavy equipment operations and excavation and earth grading activities land and vegetation clearing 	<ul style="list-style-type: none"> direct mortality of amphibian and reptiles due to machinery and site clearing habitat loss and fragmentation disruption of breeding and migration routes

Relative/ Aspect of Place	Sub-Aspect	Project Phase	Potential Source of Real and Potential Adverse Impacts and Effects	Real and Potential Impacts and Effects to Relatives and Place
				<ul style="list-style-type: none"> • adverse effects to water quality
Fish Relatives	Amphibian and Reptile Relatives	Operation and Maintenance	<ul style="list-style-type: none"> • thermal discharge from cooling water • radiological effluents and emissions from operations • chemical effluents and operational runoff and discharges • water intake • noise and light pollution • Introduction of invasive species 	<ul style="list-style-type: none"> • sublethal or lethal exposure to pollutants (due to permeable skin) • reduced reproductive success • behavioral changes (e.g., altered calling patterns) • habitat degradation or exclusion • increased predation risk from habitat changes
Fish Relatives	Amphibian and Reptile Relatives	Decommissioning	<ul style="list-style-type: none"> • removal of structures and site restoration activities 	<ul style="list-style-type: none"> • unknown long-term sedimentation and turbidity • unknown length and type of habitat disturbance • uncertainty about habitat restoration or reconnection of fragmented areas
Fish Relatives	Fish Relatives	Site Preparation and Construction	<ul style="list-style-type: none"> • lake infilling and excavation • noise and vibrations from heavy equipment operations and excavation and earth grading activities • land and vegetation clearing and shoreline modifications 	<ul style="list-style-type: none"> • sedimentation and turbidity • adverse effects to habitats • adverse effects to water quality • disturbances to fish populations • loss of aquatic vegetation and habitat
Fish Relatives	Fish Relatives	Operation and Maintenance	<ul style="list-style-type: none"> • thermal discharge from cooling water 	<ul style="list-style-type: none"> • adverse effects to fish behavior

Relative/ Aspect of Place	Sub-Aspect	Project Phase	Potential Source of Real and Potential Adverse Impacts and Effects	Real and Potential Impacts and Effects to Relatives and Place
			<ul style="list-style-type: none"> • radiological effluents and emissions from operations • chemical effluents and operational runoff and discharges • water intake • noise, light, and other visual disturbances 	<ul style="list-style-type: none"> • potential for thermal exclusion zone limiting access to surrounding water • adverse effects to habitats • adverse effects to water quality • impingement and entrainment of fish
Fish Relatives	Fish Relatives	Decommissioning	<ul style="list-style-type: none"> • removal of structures and site restoration activities 	<ul style="list-style-type: none"> • sedimentation and turbidity • disturbances to fish populations • unknown effects to habitats • unknown effects to water quality
Terrestrial Relatives	Plant Relatives	Site Preparation and Construction	<ul style="list-style-type: none"> • land and vegetation clearing • lake infilling and excavation • dust and air pollution from heavy equipment operation • soil disturbances, excavation and earth grading activities • wetland and woodland alteration, removal, or ecohydrological changes from adjacent lands • hydrological changes affecting moisture levels 	<ul style="list-style-type: none"> • loss of plant populations and habitats • soil compaction or root damage • competition from invasive species • degradation of medicinal or food quality • exacerbated and continued loss of access to culturally significant areas • loss of carbon sequestration capacity due to vegetation removal • Contribution to climate change and greenhouse gas emissions

Relative/ Aspect of Place	Sub-Aspect	Project Phase	Potential Source of Real and Potential Adverse Impacts and Effects	Real and Potential Impacts and Effects to Relatives and Place
Terrestrial Relatives	Plant Relatives	Operation and Maintenance	<ul style="list-style-type: none"> ongoing vegetation management or maintenance chemical effluents and operational runoff and discharges changes to light and microclimate limited access to plants and gathering sites 	<ul style="list-style-type: none"> long-term displacement and destruction of sensitive plant species, potential permanent loss of sensitive species at the site-level disruption of plant regeneration cycles reduced opportunities for cultural practices
Terrestrial Relatives	Plant Relatives	Decommissioning	<ul style="list-style-type: none"> removal of structures and site restoration activities 	<ul style="list-style-type: none"> temporary disturbance of regrowth areas uncertainty about the potential for restoration of traditional plant communities uncertainty about the potential to reintroduce or enhance access to Relatives of specific concern or interest
Terrestrial Relatives	Bird Relatives	Site Preparation and Construction	<ul style="list-style-type: none"> land clearing and grubbing noise and vibrations fugitive dust emissions addition of structures, on-site transmission lines, lights, and equipment in construction vicinity increasing the potential for bird strikes and collisions 	<ul style="list-style-type: none"> adverse effects to habitats including loss of nesting and feeding areas disturbances to bird populations, potential loss of habitat or decrease in bird populations increase in bird mortality

Relative/ Aspect of Place	Sub-Aspect	Project Phase	Potential Source of Real and Potential Adverse Impacts and Effects	Real and Potential Impacts and Effects to Relatives and Place
Terrestrial Relatives	Bird Relatives	Operation and Maintenance	<ul style="list-style-type: none"> • structures, on-site transmission lines, and increased vehicle traffic • presence of infrastructure and human activity • addition of structures, on-site transmission lines, and equipment in construction vicinity increasing the potential for bird strikes and collisions 	<ul style="list-style-type: none"> • reduction in local bird populations • bird strikes and collisions • adverse effects to habitats • increase in bird mortality
Terrestrial Relatives	Bird Relatives	Decommissioning	<ul style="list-style-type: none"> • noise, vibrations, and other disturbances • habitat restoration activities • use of heavy equipment for the dismantling of infrastructure and removal of structures potentially increasing the potential for bird strikes and collisions 	<ul style="list-style-type: none"> • adverse effects to habitats • unknown long-term effects to habitats • uncertainty about long-term impacts on bird mortality and population condition, potential increase in mortality during decommissioning activities • uncertainty about long-term bird strikes and collisions given that decommissioning plans are unknown
Terrestrial Relatives	Mammal Relatives	Site Preparation and Construction	<ul style="list-style-type: none"> • land clearing and habitat removal • noise and vibration from equipment • increased human presence 	<ul style="list-style-type: none"> • habitat loss • direct mortality or displacement of mammals, potential reduction in mammal populations • disruption of movement corridors, potential loss of

Relative/ Aspect of Place	Sub-Aspect	Project Phase	Potential Source of Real and Potential Adverse Impacts and Effects	Real and Potential Impacts and Effects to Relatives and Place
				habitat connectivity and isolation of habitats
Terrestrial Relatives	Mammal Relatives	Operation and Maintenance	<ul style="list-style-type: none"> ongoing noise and human activity vehicle traffic and artificial lighting chemical runoff 	<ul style="list-style-type: none"> behavioral changes road mortality reduced access to food or breeding areas with changes in mammal reproductive success and population sizes
Terrestrial Relatives	Mammal Relatives	Decommissioning	<ul style="list-style-type: none"> habitat restoration activities removal of structures and reduction in human activity 	<ul style="list-style-type: none"> uncertainty about the potential for habitat reconnection uncertainty about whether it will be possible for sensitive species to return unclear whether disturbances will persist over the long-term
Little Spirit Relatives (Insects)		Site Preparation and Construction	<ul style="list-style-type: none"> vegetation removal dust and pollution from equipment habitat fragmentation 	<ul style="list-style-type: none"> loss of pollinator species and pollinator habitat disruption of insect breeding and feeding areas introduction of invasive species
Little Spirit Relatives (Insects)		Operation and Maintenance	<ul style="list-style-type: none"> light pollution chemical runoff air and noise pollution 	<ul style="list-style-type: none"> reduced insect diversity disruption of nocturnal insect behavior contamination of insect habitats
Little Spirit Relatives (Insects)		Decommissioning	<ul style="list-style-type: none"> removal of structures habitat restoration activities 	<ul style="list-style-type: none"> uncertainty about the length of disturbance

Relative/ Aspect of Place	Sub-Aspect	Project Phase	Potential Source of Real and Potential Adverse Impacts and Effects	Real and Potential Impacts and Effects to Relatives and Place
			<ul style="list-style-type: none"> • uncertainty about the opportunity to restore pollinator habitat • unclear long-term impacts to insect biodiversity post-decommissioning 	

5.5.2.2 Real and Potential Adverse Impacts and Effects to Aboriginal and Treaty Rights of the MS-WTFNs (Preliminary)

5.5.2.2.1 Real and Potential Adverse Impacts and Effects to the Treaty Rights of the MS-WTFNs

Several pre-Confederation Treaties were established between our *Aanikoobigiganaanan* and the Crown. These Treaties were intended to encompass and protect our ways of life, including our identity, our pre-existing relationships with our cultural landscapes and Relatives throughout our homelands (which includes the NN W site).¹⁴³ As part of the negotiation and establishment of pre-Confederation Treaties, we expressly reserved our Rights to all shorelines, islands, points, wetlands, maple stands, rice beds, mouths of rivers and creeks, and beaver houses. While these specific aspects of place are not stipulated in the surviving Treaty documents, they are well understood in our oral and written accounts, as well as documented through surviving Crown records (See Section 1.4.2.2).

Aspects of our place, which were expressly reserved by our *Aanikoobigiganaanan* through Treaty, directly correlate with the centrality of shorelines, as a cultural landscape, to our people and to our relationships with our homelands (Lands, Waters and all Relatives) (Whetung, 2019). As shared by *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban),

Many things were happening. The Salmon were disappearing. The food sources were disappearing. Settlement was moving in and displacing our people. Agreements were being made at that time, which were kind of one-sided by the colonial governments as to how to take over our land. Generally speaking, our people agreed again for them to come in like we did with the Hurons. The colonial governments – the negotiators – says “Oh,” when we said, “No, we cannot give this land because this is what we use to sustain ourselves.” They said, “no, we don’t want your shorelines or your river mouths and so on. We just want this area for growing agriculture. The colonial government said to us, “We’re only here to grow food for us. We’re agricultural people. We’re farmers. That’s all we want to do. You can keep your river mouths. You can keep the shorelines of your rivers and shoreline of Lake Ontario.” We wanted to keep all of the wetlands. They said, “Yes, you can keep all the wetlands.” We wanted to keep all the maple sugar bushes. “Yes, you can keep all the maple sugar bushes.” We wanted to keep all the wild rice

¹⁴³ A complete understanding of the full intention of our *Aanikoobigiganaanan* in protecting these aspects of place as part of Treaty is still being explored and would be better informed through additional study, including through our MS-WTFNs-led Impact Assessment.

beds. “Yes, you can keep all the rice beds and all the islands, by the way too.”
When the smoke cleared, that was not written into the treaties.¹⁴⁴

In her article “(En)gendering Shoreline Law: Nishnaabeg Relational Politics Along the Trent Severn Waterway”, Madeline Whetung argues that:

In asking to keep the beaver huts, the [Michi Saagiig Anishinaabeg] effectively bring their pre-existing treaty relationship to the beavers into the new treaty relationship with settler newcomers. This shows the basic understanding among the [Michi Saagiig Anishinaabeg] that the territory is shared with multiple beings and that each group’s thriving is dependent on the network of relationships (Whetung, 2019) .

Aspects of our cultural landscapes and place which were expressly protected by our *Aanikoobigiganaanan* through Treaty, are directly connected to our sense of identity, language, ways of knowing and being, our food and medicine sources, our ceremony, and our cultural continuity, among other things. As shared by Jeff Beaver from AFN, *manoomin* grows along shorelines, in creeks, and where there is moving water.¹⁴⁵ *Manoomin* is a staple food for our people. Rice beds attract deer and other wildlife that are important food sources for our people (Chamberlain, 1888).

Shorelines are an important aspect of our identity; As *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban) noted, we are known as the Shoreline People (Williams-ban, 2018). In addition to creating a home for the rice beds, Tom Cowie, Consultation Indigenous Knowledge Lead at HFN, shared that shorelines were often locales for *mishkode*, which provided food and medicines. *Mishkode* were managed through regular cultural burning by our people. *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban) noted that *mishkode* attracted Passenger Pigeons, which were a major food source for our communities, prior to their extinction.¹⁴⁶ Shorelines are also often home to wetlands. As shared by Tracey Taylor, Cultural Administrator at CLFN, wetlands give gifts of medicine, and are important habitat for important food sources, such as turtles, frogs and waterfowl. CLFN has noted that seasonal settlements of our *Aanikoobigiganaanan* were often located near coastal wetlands.

¹⁴⁴ This knowledge was shared by *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban) during an undated interview, provided by CLFN for the purposes of informing this IPD.

¹⁴⁵ This Knowledge was shared by Jeff Beaver, as recorded in an undated interview, provided by CLFN for the purposes of informing this IPD.

¹⁴⁶ This Knowledge was shared by *Michi Saagiig Anishinaabeg* Elder Gidigaa Migizi-ban (Doug Williams-ban), as recorded in an undated interview, provided by CLFN for the purposes of informing this IPD.

Michi Saagiig Anishinaabe Elder Gidigaa Migizi-ban (Doug Williams-ban) shared that islands and points (peninsulas) were also places that our *Aanikoobigiganaanan* were attracted to; These were places to gather and camp as well as places for ceremony and are often ancestral burial locations.¹⁴⁷ The mouths of creeks and rivers were places of seasonal settlement for our *Aanikoobigiganaanan*, where fisheries were established. These areas remain central to our identity; We are the People of the Large River Mouths; the Salmon People (Williams-ban; Kapyrka, 2015).

Maple stands, which once grew over much of our homelands, provide us with maple sugar. As shared by Tom Cowie, Consultation Indigenous Knowledge Lead at HFN,

Maple stands are living sacred beings that are central to our culture as a source of food and medicine. The relationship is rooted in reciprocity involving ceremonies and stewardship to honour the Creator's gifts and ensure sustainability of the trees and sugarbush tradition. The maple sap is to the blood of the tree. Sugar camp is a place where families worked together with individuals taking on different roles involved with making maple sugar.

Indeed, our families cared for specific maple bushes (Whetung-Derrick, 1976) (Chamberlain, 1888).

Beaver houses (dams) have a direct influence on aspects of our sense of identity, in that beaver houses impact watercourses. As shared by Tom Cowie, Consultation Indigenous Knowledge Lead at HFN, “*beavers set up our roadways and routes, and created better passageways for us to Canoe.*” Tom Cowie shared that beaver would be a prime trading item for our people. At the time the pre-Confederation Treaties, the management of beaver populations would have been a top concern to our Ancestors as they would want “*to ensure those houses would be in place for the survival of beavers to replenish after the Beaver wars.*”

These aspects of our cultural landscapes, of our identity, and of our ways of knowing and being, have been, and continue to be, adversely impacted by ongoing industrial activities and development. While we continue to hold deep connections and relationships with these aspects of place, our direct access to them has become limited through the imposition of Crown and private ownership. Our cultural landscapes and our relationships to our Relatives have been disrupted by the alteration and destruction of these landscapes from flooding, deforestation, erosion, soil disturbance, and other impacts of development and climate change which have taken place within our homelands and Treaty Territories. Such disruptions, alterations, and

¹⁴⁷ This Knowledge was shared by *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban), as recorded in an undated interview, provided by CLFN for the purposes of informing this IPD.

destruction have resulted in adverse impacts and effects to our communities' ways of life, sense of identity and wellbeing.

A more complete identification of such impacts would require additional studies and assessments, to be identified by our communities, such as, but not limited to, an Indigenous Knowledge Study, Culture and Rights Study, Community Wellbeing Study, Rights Impact Assessment, and/or Cumulative Impact Assessment, as well as through our MS-WTFNs-led Impact Assessment.

A high-level, preliminary, list of concerns regarding real and potential adverse impacts and effects to our Aboriginal and Treaty Rights is introduced within Table 23. This list is based on initial project plans only and does not capture the full breadth of our concerns or real and potential adverse impacts and effects related to the NNW Project. We will need to review all project components, plans, locations, and proposed mitigation measures, to fully identify the real and potential adverse impacts and effects to be assessed throughout the IA process. We look forward to carrying out a MS-WTFNs-led review of the plans and undertaking additional studies and assessments, including our MS-WTFNs-led Impact Assessment to better understand real and potential adverse impacts and effects of the NNW Project to our Rights.

5.5.2.2.2 Real and Potential Adverse Impacts and Effects to the Aboriginal Rights of the MS-WTFNs

Real and potential adverse impacts and effects to Aboriginal Rights have typically been understood through western paradigms, as limited to those impacts which are related to harvesting practices. Our Rights are not simply limited to harvesting but rather extend to encompass our relationships and connections to our Relatives and homelands and Treaty Territories, from which flow our *nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad*, our identity, our values, our responsibilities, our spirituality, and our ways of knowing and being. An examination of specific real and potential adverse impacts and effects to our Aboriginal Rights, including, but not limited to, our harvesting practices within and surrounding the NNW site, cannot be fully articulated without a full Rights Impacts Assessment, Culture and Rights Study, Indigenous Knowledge Study, Cumulative Effects Assessment, and any other studies identified by the MS-WTFNs.

While our community members are not currently able to harvest directly within the NNW site, this is not as a result of choice but rather is due to the imposition of private and Crown ownership, in the face of Treaty promises that these areas would remain available to our communities. However, these practices have been disrupted by continuous private ownership of the Lands and shorelines within, and surrounding, the NNW site since 1797. This has also resulted in the inability for our community members to freely hold ceremony, care for, or visit, our cultural landscapes and Relatives directly on the NNW site. These circumstances were

exacerbated by the explicit (and illegal) denial of Rights through the erroneous Williams Treaties of 1923 (see Section 1.4.2.2).

Given this context, a lack of specific or direct harvesting activities within the NNW site should not justify or negate the real and potential adverse impacts and effects of the NNW Project to our Rights. If OPG did not own the NNW site, our landscapes and Relatives within it would be readily cared for, visited, and harvested by our people, as has been done since *me'wzha*. Our community members continue to hold connections and relationships with *Gchi Nibi*, the Lands, and all of our Relatives who reside within and around the NNW site. It is our understanding that this area was to be used as a nature preserve, and we are hopeful for an opportunity to regain unfettered access to these areas.

A high-level, preliminary list of concerns regarding real and potential adverse impacts and effects to our Aboriginal and Treaty Rights is introduced within Table 23. This list is based on initial project plans only and does not capture the full breadth of our concerns or real and potential adverse impacts and effects related to the NNW Project. We will need to review all project components, plans, locations, and proposed mitigation measures, to fully identify and understand the real and potential adverse impacts and effects to be assessed throughout the IA process. We look forward to carrying out a MS-WTFNs-led review of the plans and undertaking additional studies and assessments, including and MS-WTFNs-led Impact Assessment, to better identify and understand real and potential adverse impacts and effects of the NNW Project to our Rights.

Table 23: Preliminary Overview of Concerns Regarding Real and Potential Adverse Impacts and Effects to Aboriginal and Treaty Rights of the MS-WTFNs

Aspect of Place Protected by Treaty	Impacts or Effects to Place by NNW Project	Real and Potential Adverse Impacts or Effects to the MS-WTFNs
<p>Shorelines</p> <p>The NNW site is located along the shoreline of <i>Gchi Nibi</i> and includes shorelines of its tributaries which have been part of our homelands since <i>me'wzha</i>. Shorelines represent a central cultural landscape of the <i>Michi Saagiig</i></p>	<ul style="list-style-type: none"> exacerbated and continued inaccessibility of shorelines through continued private ownership alteration or destruction of shorelines as a result of infrastructure siting, site preparation, construction, operation, and decommissioning activities impacts to shoreline habitats and species (Relatives) 	<ul style="list-style-type: none"> exacerbated and continued disruption of our connections to, and relationships with, our cultural landscapes and Relatives, resulting in impacts to our wellbeing and the wellbeing of our Relatives impacts to our sense of place, identity, belonging, and <i>nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad</i>

Aspect of Place Protected by Treaty	Impacts or Effects to Place by NNW Project	Real and Potential Adverse Impacts or Effects to the MS-WTFNs
<p><i>Anishinaabeg</i>, including from where we derive our identity as the Shoreline People.</p>	<ul style="list-style-type: none"> changes to water levels and natural sediment flow due to human disturbances will result in erosion and other impacts 	<ul style="list-style-type: none"> impacts to our cultural practices, such as our harvesting practices, our resource management practices, our teaching, our learning, our ceremonies, and our social gatherings loss or impact to accessibility, availability, or quality of, our traditional food and medicine sources loss or impact to economic or creative opportunities for our communities
<p>Islands</p> <p>While there are no islands immediately present within the NNW site, impacts of the NNW Project could result in impacts to islands.</p>	<ul style="list-style-type: none"> changes to water levels and erosion can lead to loss of islands increased shoreline hardening and the creation of piers have and can disrupted the natural sediment flow in <i>Gchi Nibi</i> 	<ul style="list-style-type: none"> exacerbated and continued disruption of our connections and relationships with our cultural landscapes and Relatives, resulting in impacts to our wellbeing, and the wellbeing of our Relatives impacts to our sense of place, belonging, identity and <i>nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad</i> impacts to our <i>kina ngadmawaad</i>, ancestral burial grounds, and <i>Aanikoobigiganaanan</i> loss of our cultural practices, such as cultivating our <i>mishkode</i>, our teachings, our learning opportunities, our ceremonies, and our social gatherings
<p>Points (Peninsulas)</p> <p>Both Chrysler and Oily Points are part of the NNW site. Peninsulas</p>	<ul style="list-style-type: none"> exacerbated and continued inaccessibility of the points through continued private ownership alteration to, or destruction of points as a result of 	<ul style="list-style-type: none"> exacerbated disruption to our connections and relationships with our cultural landscapes and Relatives resulting in impacts to our wellbeing, and the wellbeing of our Relatives

Aspect of Place Protected by Treaty	Impacts or Effects to Place by NNW Project	Real and Potential Adverse Impacts or Effects to the MS-WTFNs
<p>are places of cultural and spiritual significance to the <i>Michi Saagiig Anishinaabeg</i> and are often locations of ancestral burials and places to conduct ceremony.</p>	<p>infrastructure siting, site preparation, construction, operation, or decommissioning activities</p>	<ul style="list-style-type: none"> • impacts to our sense of place, belonging, identity and <i>nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad</i> • impacts to our <i>kina ngadmawaad</i>, archaeological sites, ancestral burial grounds, and <i>Aanikoobigiganaanan</i> • impacts to ability to practice our ceremonies, our spirituality, and our social gatherings
<p>Wetlands</p> <p>The NNW Site includes a coastal wetland and other wetlands, which are landscapes of cultural, spiritual, relational, and economic value to the <i>Michi Saagiig Anishinaabeg</i>, including places where our medicines grow.</p>	<ul style="list-style-type: none"> • exacerbated and continued loss of accessibility to coastal and other wetlands due to private ownership • alteration to, or destruction of wetlands as a result of infrastructure siting, site preparation, construction, operation, or decommissioning activities • other impact to wetlands • loss or impact to habitat and species (Relatives) • loss or impact to adjacent areas leading to impacts on wetlands 	<ul style="list-style-type: none"> • exacerbated disruption of our connections and relationships with our cultural landscapes and Relatives, resulting in impacts to our wellbeing and the wellbeing of our Relatives • impacts to our sense of place, belonging, identity and <i>nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad</i> • loss or impact to accessibility, availability, or quality of, our traditional food and medicine sources • impacts to our cultural practices, such as our harvesting practices, our teachings, our learning, and our ceremonies • loss or impact to economic and creative opportunities for our communities
<p>Maple Stands</p> <p>While a complete tree inventory has not yet been completed,</p>	<ul style="list-style-type: none"> • exacerbated and continued inaccessibility of maple trees through continued private ownership • tree removal, or damage or destruction of maple trees 	<ul style="list-style-type: none"> • exacerbated disruption to our connections and relationships with our cultural landscapes and Relatives, resulting in impacts to our wellbeing and the wellbeing of our Relatives

Aspect of Place Protected by Treaty	Impacts or Effects to Place by NNW Project	Real and Potential Adverse Impacts or Effects to the MS-WTFNs
<p>observations of the NNW site have included various species of Maple trees.</p>	<p>as a result of infrastructure siting, site preparation, construction, operation, or decommissioning activities</p> <ul style="list-style-type: none"> loss or impact to habitat and species (Relatives) 	<ul style="list-style-type: none"> impacts to our sense of place, belonging, identity and <i>nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad</i> loss or impact to accessibility, availability, or quality of, our traditional food and medicine source impacts to our cultural practices, such as our harvesting practices, our resource management practices, our teachings, our learning, our ceremonies, and our social gatherings loss or impact to economic and creative opportunities for our communities
<p>Mouths of Creeks and Rivers</p> <p>The mouth of the Wesleyville creek and several other tributaries are found within the NNW site.</p> <p>Mouths of rivers and creeks are significant cultural landscapes for the <i>Michi Saagiig Anishinaabeg</i>, as central places of our identity (People of the Big River Mouths), our society, economy, culture, and ways of life.</p>	<ul style="list-style-type: none"> exacerbated and continued inaccessibility of the creek mouths through continued private ownership alteration or destruction of the creek mouths as a result of infrastructure siting, site preparation, construction, operation, and decommissioning activities impact or loss of habitat or species (Relatives) 	<ul style="list-style-type: none"> exacerbated disruption of our connections and relationships with our cultural landscapes and Relatives, resulting in impacts to our wellbeing and the wellbeing of our Relatives impacts to our sense of place, belonging, identity and <i>nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad</i> loss or impact to accessibility, availability, or quality of, our traditional food and medicine source impacts to our cultural practices, such as our harvesting practices, our resource management practices, our teachings, our learning, our ceremonies, and our social gatherings

Aspect of Place Protected by Treaty	Impacts or Effects to Place by NNW Project	Real and Potential Adverse Impacts or Effects to the MS-WTFNs
		<ul style="list-style-type: none"> loss or impact to economic and creative opportunities for our communities
<p>Rice beds (<i>Manoomin</i>)</p> <p>Suitable habitat for <i>manoomin</i> exists within the NNW site, and the surrounding area¹⁴⁸.</p> <p><i>Manoomin</i> is central to our identity and is a traditional food and medicine source. It once grew widely along the coast of <i>Gchi Nibi</i>, in the mouths of its tributaries, and within coastal and other wetlands.</p>	<ul style="list-style-type: none"> impact to or loss of suitable habitat (Relatives) 	<ul style="list-style-type: none"> exacerbated disruption of our connections and relationships with our cultural landscapes and Relatives, resulting in impacts to our wellbeing and the wellbeing of our Relatives impacts to our sense of place, belonging, identity and <i>nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad</i> loss or impact to accessibility, availability, or quality of, our traditional food and our medicine sources impacts to our cultural practices, such as our harvesting practices, our resource management practices, our teachings, our learning, our ceremonies, and our social gatherings loss or impact to economic and creative opportunities for our communities
<p>Beaver houses (dams)</p> <p>Suitable habitat for beavers exists within the NNW site, and the surrounding area.</p>	<ul style="list-style-type: none"> impact or loss of habitat or species (Relatives) 	<ul style="list-style-type: none"> impacts to our sense of place, belonging, identity and <i>nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad</i> impacts to our cultural practices, such as our harvesting practices, our resource management practices, our navigation routes, our

¹⁴⁸ As noted in Section 3.4.2.1.1, a wild rice species (*Zanazia sp*) has also been observed in the central coast marsh.

Aspect of Place Protected by Treaty	Impacts or Effects to Place by NNW Project	Real and Potential Adverse Impacts or Effects to the MS-WTFNs
		teachings, our learning, and our social gathering

5.5.2.3 Real and Potential Adverse Impacts and Effects to the Inherent Rights of the MS-WTFNs

By virtue of our existence and through our relationships with the Lands, Waters and all Relatives within our homelands, we have pre-existing Inherent Rights, which are not governed through Canadian law, but are recognized and protected by the Canadian Constitution. These Rights are intrinsically linked to our identity and to our ways of knowing and being. It is not possible to fully articulate an accurate understanding of our Inherent Rights, in English, and a full account of such Rights is not easily determined. However, for the purposes of this IPD, we have identified the following aspects of our Inherent Rights to include, but are not limited to:

- the right to maintain our identity, including our culture, our language, our spirituality, and our ways of knowing and being
- the right to self-determination, including self-governance, the right to economy, and to make decisions regarding the Lands, Waters, *Aanikoobigiganaanan, kina ngadmawaad*, and other Relatives within our homelands
- the right to maintain an undisturbed relationship with the Lands, Waters, *Aanikoobigiganaanan, kina ngadmawaad*, and other Relatives, as well as to areas and places of cultural and spiritual significance within our homelands;
- the right to harvest, consume, make, manage, and maintain, our traditional medicines, food, and ceremonial items
- the right to access the necessities of life, including water quality and access to clean drinking water.

Any real or potential adverse impacts or effects to our Inherent Rights result in direct impacts to our ways of knowing and being, as well as our sense of belonging and wellbeing. A more complete identification of such real and potential adverse impacts and effects would require various studies and assessments, to be identified by our communities, such as, but not limited to, an Indigenous Knowledge Study, Culture and Rights Study, Community Wellbeing Study, Rights Impact Assessment, and/or Cumulative Impact Assessment, as well as through our MS-WTFNs-led Impact Assessment.

5.5.3 Evaluating Real and Potential Adverse Impacts and Effects to the MS-WTFNs (Preliminary)

An evaluation of real and potential adverse impacts and effects cannot simply be weighed against the ability of the NNW Project to meet socio-economic human needs; It must be understood, rather, through the lens of the integral interconnectedness of all Creation, where balance is essential to maintaining the intergenerational wellbeing of all our Relatives. Such an understanding requires a more wholistic analysis and cannot be fully articulated without additional study and evaluation, including, but not limited to, through our own frameworks of analysis, which have yet to be developed. A more complete identification of real and potential adverse impacts and effects requires various additional studies and assessments, to be identified by our communities, such as, but not limited to, an Indigenous Knowledge Study, Culture and Rights Study, Community Wellbeing Study, Rights Impact Assessment, and/or Cumulative Impact Assessment, as well as through our MS-WTFNs-led Impact Assessment.

Figure 12 represents a preliminary (and not yet complete) attempt to provide a rudimentary framework for identifying and understanding real and potential adverse impacts and effects of the NNW Project, through examining the interconnectedness of all aspects of place and their wellbeing, to our own sense of identity, wellbeing and ways of knowing and being.

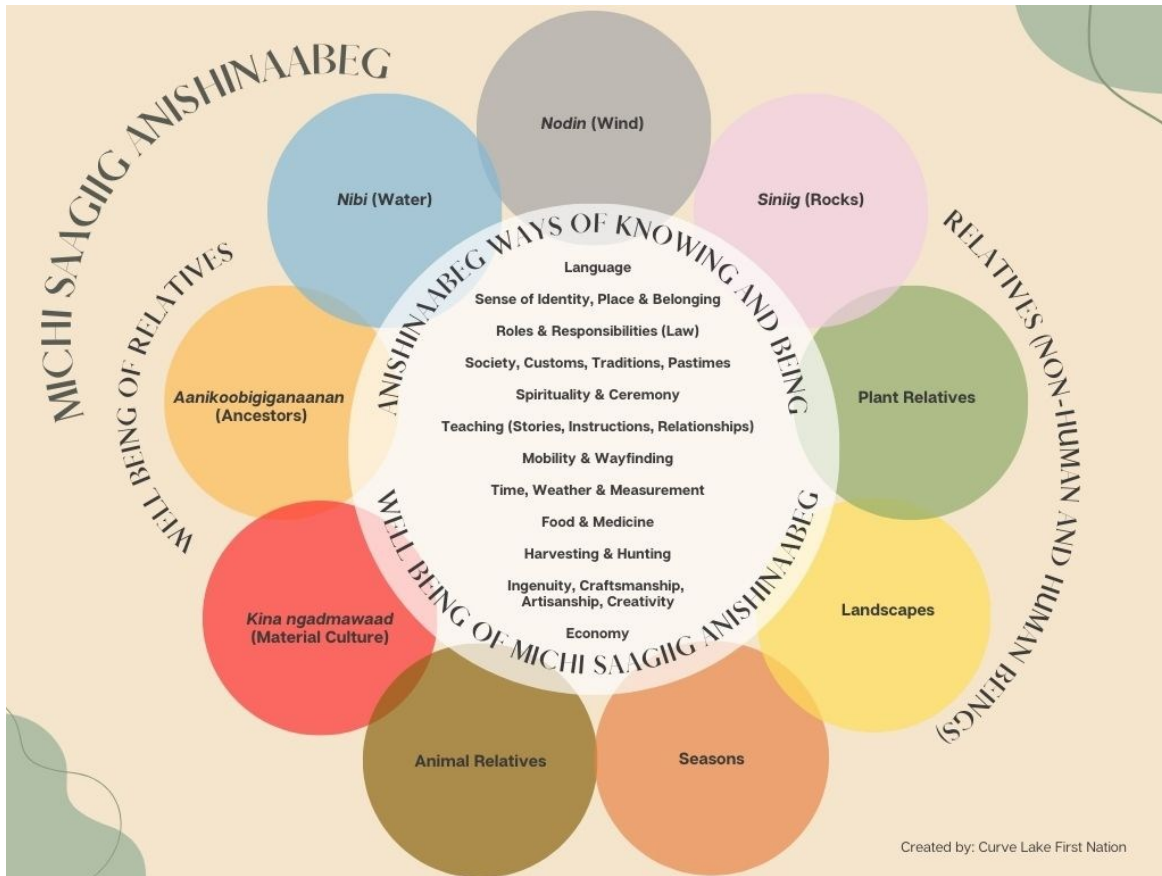


Figure 12: Interconnectedness of Facets of Michi Saagiig Anishinaabeg Ways of Knowing and Being and Aspects of Place (Preliminary)¹⁴⁹

¹⁴⁹ This figure has been created by CLFN for the purposes of this IPD and should not be reproduced, replicated or utilized in any other context outside of the purpose of use within this document, without the express permission from the Nation. Please contact consultation@curvelake.ca for more details.

5.6 Indigenous Physical and Cultural Heritage, and Structures, Sites or Things of Significance (Preliminary) / Real and Potential Adverse Impacts and Effects to Indigenous Cultural Landscapes and Places of Cultural and Spiritual Significance (Preliminary)¹⁵⁰

5.6.1 Local Cultural Landscapes of the MS-WTFNs

Our cultural landscapes provide our people and our Relatives, a place – a sense of belonging and identity. Our cultural landscapes teach us about our surroundings, about what is to come, and give us instructions. Our cultural landscapes inform our language, our understanding of our responsibilities, and our laws. Our cultural landscapes encompass all our Relatives, our Sacred Directions, and all of the Elements. As shared by Anne Taylor of CLFN “*the sounds of the landscape tell us how to live and walk on the land.*” Our ways of knowing and being are place-based, and are derived from our lived, intergenerational experiences with our place.

The shoreline of *Gchi Nibi* and its tributaries, including those within the NNW site, are a central aspect of our cultural landscape. These areas remain central to our identity (Salmon People, People of the Big River Mouths, the Shoreline People). Our memories, stories, and oral accounts, as well as archival, archaeological, and ecological evidence, attest to the presence of our people, both around and within the NNW site since *me’wzha*. These areas were part of our summering grounds. When thinking about *Gchi Nibi*, *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban) shared “*That’s our old place, we’re forgetting that memory of living on Lake Ontario. It sustained us for thousands of years.*”¹⁵¹

Figure 13 includes a preliminary understanding of aspects of our cultural landscapes found within and surrounding the NNW site. It is based on our preliminary understanding and identification and is not exhaustive. Additional studies, investigation, and engagement with our

¹⁵⁰ The MS-WTFNs acknowledge that within the *Guide to Preparing an Initial Project Description and a Detailed Project Description*, the Agency requires a description of impacts to Indigenous peoples, including their ‘Physical and Cultural Heritage, Structures, Sites or Things of Significance’ be included in the IPD. While we appreciate the intention of this terminology, it does not accurately reflect the lived reality of our communities or our ways of knowing and being. As described in footnote 137, we have included a terminology change within this document to include ‘real and potential adverse impacts and effects’ of the NNW Project. We have chosen terminology which is meant to meet the requirements of the IMTLR, while utilizing language which better reflects aspects of place which are being, and may be, adversely impacted or effected by the NNW Project, This includes, for example, our cultural landscapes and places of spiritual and cultural significance which are valued by our people.

¹⁵¹ This Knowledge was shared by *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban), as recorded in an undated interview, provided by Anne Taylor of CLFN, for the purposes of informing this IPD.

communities will be required to have a fuller understanding of the area, including through the MS-WTFNs-led Impact Assessment.¹⁵²

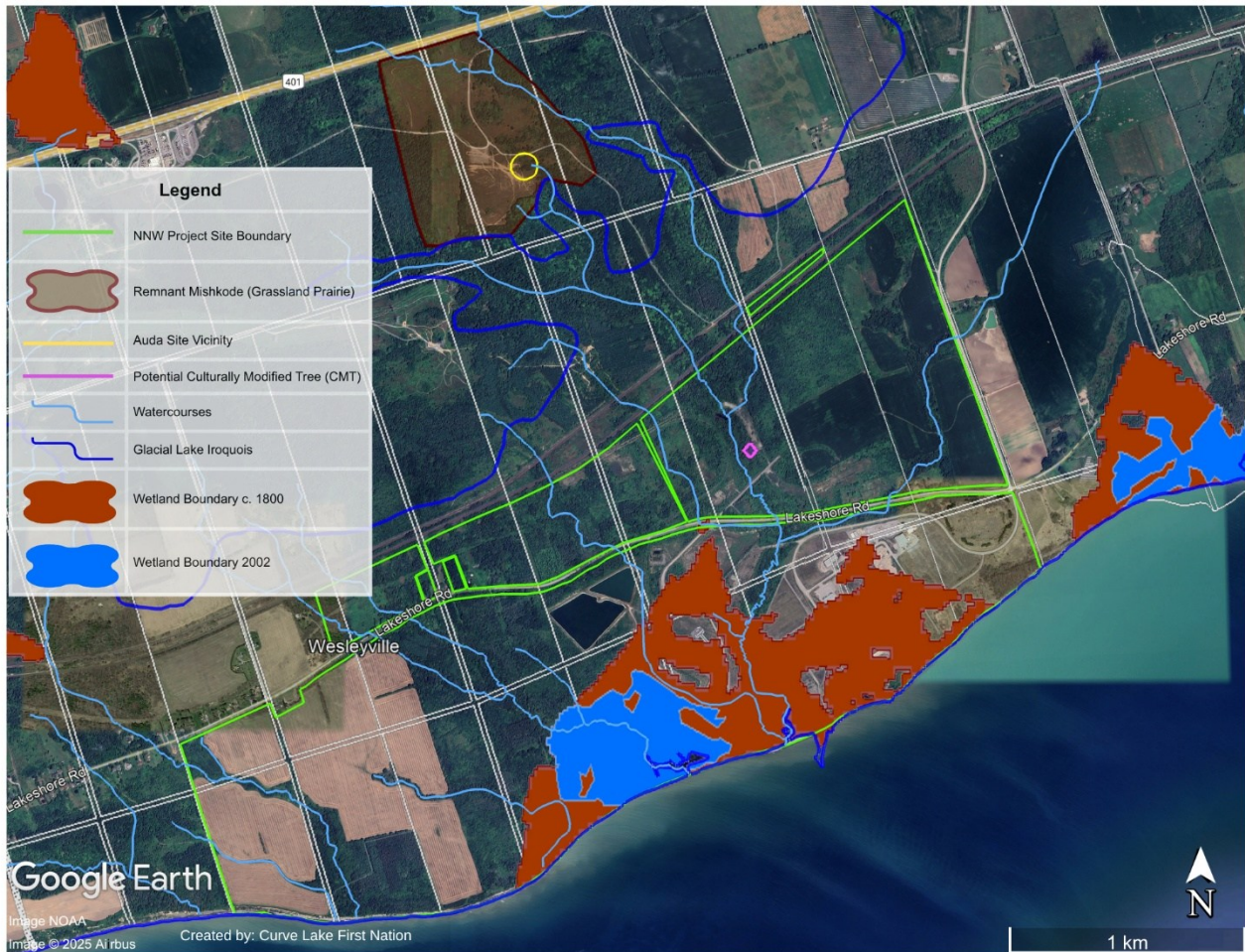


Figure 13: Map of Cultural Landscapes of the MS-WTFNs Found Within and Near the NNW Site (Preliminary)¹⁵³

Aspects of our cultural landscapes found within and surrounding the NNW Project identified within Figure 13 include the following:

¹⁵² Evidence of additional archaeological sites within the vicinity of the NNW site have been identified, however, further analysis is required. Given the time constraints associated with the formulation of the IPD, discussion of these archaeological sites has been excluded from this document. These, in addition to other archaeological and historical evidence, will form part of the more extensive knowledge gathering process proposed for the forthcoming MS-WTFNs-led Impact Assessment.

¹⁵³ This figure has been created by CLFN for the purposes of this IPD and should not be reproduced, replicated or utilized in any other context outside of the purpose of use within this document without express permission from the Nation. Please contact consultation@curvelake.ca for more details.

Mishkode: As described by *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban),

*[A mishkode] is like a prairie by our people. One of the activities that they did was to take certain areas where they would burn just to keep the grasses growing, which were special grasses known as Indian grass – Anishinaabeg grass – and other plants [...] that would grow there. The other thing about that place is that it was a favourite place for the passenger pigeon to come and eat. Thousands of them would land because it was producing these beautiful oak nuts.*¹⁵⁴

Evidence of our *mishkode* – remnant grassland prairie habitat – is present, just north of the NNW site (as shared by the Wesleyville Joint Working Group of the Willow Beach Field Naturalists and the Northumberland Land Trust), and is within the vicinity of the Auda Site (AlGo-29), which is a known archaeological site comprised of a potential *Michi Saagiig Anishinaabeg* village.¹⁵⁵ As shared by Tom Cowie, Consultation Indigenous Knowledge Lead at HFN, it was common for our villages to be established within *mishkode*, which we would occupy seasonally to cultivate the grasslands, through cultural burns, and to harvest medicines and hunt species that were attracted to the area. *Mishkode* were often established along shorelines and near places where our people harvested wild rice (Johnston, 1986).¹⁵⁶

Wetlands: Wetlands are important cultural landscapes to our people. Wetlands are places for ceremony, provide habitat and sustenance for many of our Relatives, and offer gifts of medicines, including *manoomin*. Less than 28% of pre-colonization wetland extent remains in southern Ontario (Ducks Unlimited Canada, 2010), making all remaining wetlands significant in the context of cumulative effects. Figure 13 shows the extent of wetlands in 1800 and indicates that wetland loss previously occurred at the NNW site. The remaining wetland within the NNW site, includes a PSW-complex and is also considered an ANSI. Wetlands represent the interconnectedness of all our Relatives and the need to maintain balance, as they are sensitive both to direct impacts (e.g., removal), and from impacts on adjacent Lands, which can result in a myriad of changes (e.g., to hydrology, contamination, and many other aspects of their health and spirit).

¹⁵⁴ This Knowledge was shared by *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban), as recorded in an undated interview, provided by CLFN for the purposes of informing this IPD.

¹⁵⁵ Evidence of additional archaeological sites within the vicinity of the NNW site have been identified, however, further analysis is required. Given the time constraints associated with the formulation of the IPD, discussion of these archaeological sites has been excluded from this document. These, in addition to other archaeological and historical evidence, will form part of the more extensive knowledge gathering process proposed for the forthcoming MS-WTFNs-led Impact Assessment.

¹⁵⁶ *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban), shared similar accounts of *mishkode*, as recorded in an undated interview, provided by CLFN for the purposes of informing this IPD.

Archaeological Sites and *Kina ngadmawaad*: As shared by Derek Paauw, Consultation Lead – Archaeology at CLFN, archaeological activities in Wesleyville are sparse, yet work that has been completed to date bears witness to its long, uninterrupted human history. To date, arguably the most significant archaeological discovery in Wesleyville has been the Auda site.¹⁵⁷ The Auda site (AIGo-29) was discovered in 1978, by Arthur Roberts, during a preliminary investigation of approximately 33 hectares of Lands to be impacted by Eldorado Nuclear Ltd.’s proposed development of the property north of Lakeshore Road and the NNW site. A total of 16 pre-European contact First Nations sites, including the Auda site, were found in an area that could be ploughed to facilitate the survey. These 16 archaeological sites offer a glimpse of the cultural development of the Wesleyville area, and southern Ontario, dating from the Paleo Period, approximately 11,000 years ago, to European settlement at the beginning of the nineteenth century.

In the summer of 1979, the Auda site underwent salvage excavations by Mima Kapches from the Royal Ontario Museum. Excavations revealed a non-palisaded village site comprising 10 round structures, identified as longhouses, with an estimated date of occupation at around 775 CE, based on radiocarbon dating. From the material culture recovered, the Auda was initially interpreted as an Iroquoian site. However, since the 1979 salvage excavations, through wider archaeological research across southern Ontario and the incorporation of First Nations’ Knowledge, the importance and uniqueness of the Auda site and the surrounding landscape has been realized. At least three other known archaeological sites with similar round structures to the Auda Site have been uncovered, underscoring its uniqueness.

Wesleyville presents a unique opportunity to contribute to our understanding of the cultural use of a landscape along the north shore of Lake Ontario and the history of the *Michi Saagiig Anshinaabeg*. Aside from the current Wesleyville partially constructed powerhouse, most development and agricultural activities on the landscape concluded in the middle of the nineteenth century as the farms and dwellings were purchased, and the land left fallow. Aside from one season of salvage excavations at the Auda Site and recent cursory surveys on portions of the Wesleyville property south of Lakeshore Road, the landscape has remained untouched. It is a time capsule that deserves the utmost care as the landscape enters a new generation of use.

Glacial Lake Iroquois: A remnant shoreline of Glacial Lake Iroquois exists relatively untouched, north of the NNW site. Glacial Lake Iroquois existed in the Lake Ontario basin as the continental icesheets receded at the conclusion of the Pleistocene Epoch, approximately 11,000 to 13,000 years ago, when our *Aanikoobigiganaanan* began to reinhabit the land that would

¹⁵⁷ Evidence of additional archaeological sites within the vicinity of the NNW site have been identified, however, further analysis is required. Given the time constraints associated with the formulation of the IPD, discussion of these archaeological sites has been excluded from this document. These, in addition to other archaeological and historical evidence, will form part of the more extensive Knowledge gathering process proposed for the forthcoming MS-WTFNs-led Impact Assessment.

become our home. Evidence of this migration north on the heels of the melting glaciers were uncovered in the vicinity of the Auda site, which itself occupied a bluff that was once the shoreline of Glacial Lake Iroquois.

Crysler and Oily Points: The NNW site includes two points (peninsulas), which are places of cultural and spiritual significance for the MS-WTFNs. As described by *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban),

*People held some points of land as significant as they did the islands. In fact, during early negotiations, there were some points of land that were kept or peninsulas that were kept by our people because they're significant. They camped there. They did special ceremonies and so on.*¹⁵⁸

Points are often places associated with our *Aanikoobigiganaanan* and our ancestral burial grounds.

Mouth of Rivers and Creeks: The mouths of rivers and creeks flowing into *Gchi Nibi* are fundamental to our cultural landscapes and are places of cultural significance to our people. They were areas we established as seasonal fisheries and places we gathered and established our villages. As described by *Michi Saagiig Anishinaabe* author George Coppaway,

the fishery was the hub of the community life, and villages were established at the river mouths most abundant with fish. These were occupied six to eight months of the year; the winter months being spent in the hunting grounds (Coppaway, 1847).

Michi Saagiig Anishinaabe Elder Gidigaa Migizi-ban (Doug Williams-ban) shared that rivers and watercourses tell us where we are, as *Michi Saagiig Anishinaabeg*.¹⁵⁹ Rivers and watercourses are part of our traditional transportation routes, and portages and trails were often located nearby. The NNW site includes six tributaries of *Gchi Nibi*, including Wesleyville Creek, and represents a cultural landscape and place of cultural and spiritual significance to our people.

Potential Culturally Modified Tree (CMT): A potential CMT was observed by a representative of MSIFN, within the NNW site, during preliminary fieldwork studies in 2025. Our people intentionally modify trees to mark a specific cultural feature on the landscape, such as a trail, boundary, harvesting area, and even ancestral burials. Trees are typically modified by removing strips of bark, scoring the tree, or artificially shaping it. Additionally, trees can also appear

¹⁵⁸ This Knowledge was shared by *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban), as recorded in an undated interview, provided by CLFN for the purposes of informing this IPD.

¹⁵⁹ This Knowledge was shared by *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban), as recorded in an undated interview, provided by CLFN for the purposes of informing this IPD.

modified by our people, for example if bark or other elements of a tree are harvested. Lack of access to, alteration, and destruction of our cultural landscapes and places of spiritual and cultural significance represent impacts to our Rights, to our ways of knowing and being. Real and potential adverse impacts and effects to aspects of our cultural landscapes disrupt our sense of place, belonging, identity, and *nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike wanishaawaad*. They exacerbate and disrupt our connections and relationships with our Relatives, resulting in impacts to our wellbeing and the wellbeing of our Relatives.

5.6.2 Other Places of Cultural and Spiritual Significance to the MS-WTFNs

Additional aspects of our cultural landscape found within or near the NNW site, which do not appear in Figure 13, include, but are not limited to, evidence of a seasonal gathering place and ancestral burial grounds, and a traditional familial harvesting area. These are characterized below.

5.6.2.1 Potential Gathering Place and Ancestral Burial Grounds

In addition to the archaeological sites already noted above, there is evidence of a gathering place and ancestral burial ground of our *Aanikoobigiganaanan*, located within the NNW site. It was recorded and described by early settlers in the booklet, *Wesleyville United Church and Its People*, which stated:

All of this happened when our road along the Lake was a deer trail winding through forests of pine, beech and maple. There must have been a few breaks in the virgin forest for in French Canada times Fenelon was supposed to have a mission on the Ganaraska; in the 1780's a man called Peter Smith lived there, (Playter mentions the trader Mr. S. in 1826), and traded with the Indians, so boats must have known the river mouth; and up the shore Indians met for some purpose at a cleared place about one acre in size, on land now farmed by Ken Dinner (Bridges, 1960).

Ken Dinner lived at Hope Township in a lot within the NNW Project site. The account goes on to say:

It was at that place Jonathan Brown, from Ireland, chose his future home when he landed there in 1797. The year before that, on high land farther east, Nathan Walton built his log house, later to be replaced by a fine manor house. Bricks from its chimney are still in a little heap among the very old lilac bushes, on Edgar Barrowclough's farm. Whether Indians had cleared any of it we do not know, but

quantities of hunting and arrow heads and skinning knives have been found there. These were the first two settlers in the community now called Wesleyville. (Bridges, 1960).

The account in *Wesleyville United Church and Its People*, goes on to record:

We have already told that he settled on [a lot south of Lakeshore road], coming from Ireland. He made a dugout in the Lake bank till he had a log house built. Like most pioneer homes it had a huge fireplace to hold a good sized log. He was a tailor and made clothes for settlers, from cloth woven by his wife. Once when a bear attacked his pigs, he called his wife, Charity, to bring a coal from the fireplace to light the powder in his gun. They got the bear. There was an Indian burying ground on the place, and when they came there, a spot about an acre in size was clear, evidently an Indian meeting place. (Bridges, 1960)

Another account was recorded in the *Weekly Guide* on May 19, 1933, which states:

The Brown family landed on the beach south of the farm now owned by George Dinner about a mile west of Wesleyville Church. Except for a cleared spot, about one acre in size this, section was all densely wooded. This space had evidently been used by the Indians as a meeting place for many relics were found there, among them a hatchet of flint. This space was near the Lake on the west side of Dinner's farm. For a temporary shelter, Mr. Brown made a dug-out in the side of the bank. He had brought some pigs with him and made a pen for them nearby. One day they saw a bear tearing the logs away from the pen and Mr Brown ran for his gun. The powder would not ignite from the flint spark so he called his wife to bring a coal from the fire. When he said 'Ready' she dropped the coal on the powder. They shot the bear. The trees here were all beech and maple and from them they made a comfortable house with split logs for a floor (The Port Hope Weekly Guide, 1933).

While the exact location of an ancestral burial ground and gathering place has not yet been confirmed, we know that our *Aanikoobigiganaanan* were present in the Port Hope and Wesleyville areas, including within the NNW site. If not for the loss of access to the Lands and shorelines through the imposition of Crown and private ownership, we would still be caring for and gathering at these places of cultural and spiritual significance. Additional research, including, but not limited to an Indigenous Knowledge Study and historical and archaeological investigation is required to more fully understand the significance of the NNW site, and surrounding area, and may be explored through our MS-WTFNs-led Impact Assessment.

5.6.2.2 Traditional Harvesting and Hunting Grounds

The Wesleyville area was identified as a traditional familial hunting and harvesting ground of our communities. Discussions between the MS-WTFNs, OPG, the Agency and CNSC are required to discuss governance and use of this information.

5.6.3 Regional Cultural Landscape of the MS-WTFNs

The centrality of the NNW site and surrounding area, to the MS-WTFNs, must be understood within the context of our broader regional cultural landscape and places of cultural and spiritual significance. Our memories, stories, and oral accounts, as well as archival and archaeological evidence, provide evidence that we travelled in familial groups between our wintering and summering grounds, following the natural cycles of our Relatives. Our winter grounds included areas around, and north of, Rice Lake, Chemong Lake, Balsam Lake, Scugog Lake and Lake Simcoe. Our summer grounds were along the shorelines of *Gchi Nibi*, and its tributaries.

There is evidence that our *Aanikoobigiganaanan* maintained a gathering place and burial ground located within the NNW site, which was ‘down the shore’ from present day Port Hope. At the time of European settlement, a large, seasonally occupied, *Michi Saagiig Anishinaabeg* village known as *Pametashwetiang*¹⁶⁰ had been established along the banks of the Ganaraska River, near its original mouth (Belden, H., & Co., 1878) (Karcich, 2017) (The Port Hope Evening Guide, 1894). This village was located near a terminus of the Ganaraska or Rice Lake Carrying Place - a large portage route that connected *Pemaadeshkodeyong*¹⁶¹ (Rice Lake) to *Gchi Nibi* - which was part of a larger seasonal migration route of our people. Various settler accounts indicated that several hundred *Michi Saagiig Anishinaabeg* or more than 50 families resided seasonally in the village at *Pametashwetiang*, each year (Craick, 1901) (The Port Hope Evening Guide, 1894). Indeed, one account suggests that the route along the Ganaraska Carrying Place was specifically preferred by *Michi Saagiig Anishinaabeg* families coming from Chemong Lake (Karcich, 2017). The centrality of the mouth of the Ganaraska River, and the north-shore of *Gchi Nibi* to our people, to our society, to our economy, and to our ways of life were notable to the Crown and many early settlers. For example, British officials chose Port Hope as an area to meet with *Michi Saagiig Anishinaabeg* leadership; It was here that pre-Confederation Treaties, including Treaty 20 of 1818 were negotiated (Muskrat Simpson, 1953).

¹⁶⁰ See footnote 55.

¹⁶¹ Our name for our place and our Relative, which is now commonly known as ‘Rice Lake’ is also commonly spelled ‘*Pamitaashkodeyong*’. We honour other spellings and names for this place, where our people have gathered and lived since *me’wzha*. The names provided here can be loosely translated as ‘lake of the burning plains’, ‘plains where the fire moves across’, or as shared by *Michi Saagiig Anishinaabe* Elder Gidigaa Migizi-ban (Doug Williams-ban) ‘where it burns and where it travels’, in English. (Williams-ban, 2018) As shared by Tom Cowie, Consultation Indigenous Knowledge Lead at HFN, these names offer descriptions of our relationships to our place, and refer to our longstanding practice of caring for and maintaining our *mishkode*, which was located along the south shore of the Lake through regular controlled burns.

We know that our *Aanikoobigiganaanan* maintained a presence along the north shore of *Gchi Nibi* and were present in the Wesleyville and Port Hope area. Ultimately, our people were pushed out of the area by European settlers and Loyalists throughout the 19th century, as settler populations rapidly grew, and development and industry ravished our cultural landscapes, transportation routes, economies, and our Relatives. If not for the loss of access to the Lands and shorelines through the imposition of Crown and private ownership, we would still be caring for and gathering at these places of regional significance.

Additional research, including, but not limited to an Indigenous Knowledge Study and historical and archaeological investigation is required to more fully understand the significance of regional significance of the area surrounding the NNW site to the MS-WTFNs.

5.7 Real and Potential Impacts to Current Use of Land and Resources for Traditional Purposes / Real and Potential Adverse Impacts and Effects to Indigenous Relationships with Lands, Waters and all Relatives (Preliminary)¹⁶²

Our communities continue to hold deep connections and relationships with the Lands, Waters and all Relatives within, and surrounding, the NNW site. Our relationships have been disrupted by the imposition of Crown and private ownership of the Lands and shorelines, which has limited our access to the NNW site and other areas of spiritual and cultural significance nearby. Fences, and other infrastructure development in the area, further limits our ability to walk on the Lands, care for and visit with our Relatives, and carry out ceremony. The Lands, and specifically the shorelines, points, islands, maple stands, and wetlands were taken up into private ownership and altered or destroyed through development, contrary to Treaty promises. These areas were never negotiated to be held by the Crown through any Treaty, yet they were taken up through the imposition of European concepts of land tenure and land surveying practices which did not

¹⁶² The MS-WTFNs acknowledge that within the *Guide to Preparing an Initial Project Description and a Detailed Project Description*, the Agency requires a description of the project's potential adverse impacts to 'Current Use of Land and Resources for Traditional Purposes'. While we appreciate the intention of such a description, this phrase does not accurately reflect the lived reality of our people or our ways of knowing and being. Within our ways of knowing and being, land is not 'used', nor is it filled with 'resources'. Such terminology connotes inanimate objects that are other than the user. Rather, we understand *Shkakimikwe*, and all its aspects (Land, Rocks, Air, Water, Wind, Animals, Plants, Little Spirit, Ancestors, Spirits, etc.) to be related to us in a spiritual, relational and familial way - as our Relatives. We have agreed to carry out certain responsibilities among our Relatives. Our Relatives are helpers and offer gifts, teachings, and instructions. We have an obligation to ensure the health and integrity of our Relatives, for generations to come, and as we have done since *me'wzha*. Respectfully, the MS-WTFNs are not 'of' Canada. We are not owned or possessed by any entity. Our Nation pre-existed the creation and formation of Canada, whose jurisdiction and sovereignty was imposed over the pre-existing sovereign Nations on the Back of the Big Turtle, and over the Inherent Rights of the *Michi Saagiig Anishinaabeg*. As such, we have chosen a different title for this section, which is meant to meet the requirements of the contents of IPD, while utilizing different language to better reflect our Knowledge, experience, and understanding, as well as the lived realities of the positionality of the MS-WTFNs within Canada.

acknowledge or consider the Treaties or our Rights. The Indian Act of 1876 and the illegal Williams Treaties of 1923, further cemented the inability of our people to maintain uninterrupted direct relationships with the Lands, Waters and all Relatives within, and surrounding, the NNW site.

The Crown has played a role in enabling, affirming, and continuing such colonial policies and practices which diminish our Rights and shrink the areas that remain available to our people to carry out our ways of life. This results in a disruption to our identity, our ways of knowing and being, and our wellbeing. An example of this disruption, out of a multitude of others, is the inability for us to harvest directly on the NNW site. This is not a result of choice, but an imposed reality. According to our Treaties with the Crown, these areas should have remained available to our people. For example, Peter S. Schmalz noted that,

Individual Ojibwa bands [which includes Michi Saagiig Anishinaabeg] were told in the [treaty] negotiations that they would be permitted to fish and hunt in their old locations as before (Schmalz, 1991).

As noted by Mary Jane Muskratte Simpson,

Our ancestors acquiesced [to sharing the land] cheerfully in the belief that they could hunt where and when they wished - 'as long as the grass grows and the water runs' - so ran the agreement signed by Indian chiefs and representatives of His Majesty's Government. This was the law and promise which our ancestors deemed invulnerable as the laws of the Medes and Persians, but which later proved to be only a scrap of paper (Muskratte Simpson, 1953).

The fact that our people are not able to access or harvest within the NNW site, does not justify or negate the real and potential adverse impacts and effects of the NNW Project to our Rights; Private ownership and our inability to freely access the NNW site does not negate our active and existing connections and relationships that we hold with our place and our Relatives. Our relationships with our Relatives have not, and will never, cease to exist; they are part of who we are as a people.

As shared by Tracey Taylor, Cultural Administrator at CLFN,

we may not be within this space as of right now, but in the past, we were, and the future it will happen. Nothing changes within the context regarding our connection or ways of being simply because we are not there. [The use of the term 'current use' in the original title of this section] limits this understanding, when it is said this way.

If OPG did not own the NNW site, the Lands, Waters and all Relatives within it would be readily visited, cared for, and harvested by our people, as has been done since *me'wzha*. Additional details regarding specific areas of harvesting and Relatives that are currently accessible to our communities, and areas that could be made available to our community members must be defined through additional studies and assessments, as identified by our communities, and through our MS-WTFNs-led Impact Assessment.

5.8 Real and Potential Impacts on Health, Social, or Economic Conditions of Indigenous peoples of Canada (Preliminary) / Real and Potential Adverse Impacts and Effects to the Health, Social, or Economic Context and Conditions of Indigenous peoples within Canada (Preliminary)¹⁶³

The NNW Project is defined as a federal work or undertaking, and as such a preliminary list of real and potential impacts on health, social, and economic conditions has been provided in Table 32.

The social, health and economic context of the MS-WTFNs has been shaped by the ongoing interplay between historical legacies, contemporary challenges, and processes of cultural and political resurgence. Our communities have experienced the ongoing impacts of colonization, including land dispossession. This has occurred through the imposition of Canadian sovereignty, the Indian Act, the Williams Treaties, and systemic efforts to suppress our language and culture through colonial policies, all of which have been exacerbated by society apathy, racism, and discrimination.

Free and unfettered access to our place, to our cultural landscapes, to our places of cultural and spiritual significance, and to our direct and indirect relationships with Relatives are important drivers of our social and economic activities and our physical, spiritual, and emotional health. This includes our language, ceremony, harvesting, artistic and spiritual expression, intergenerational Knowledge transfer, economic independence, identity, sense of belonging, and

¹⁶³ The MS-WTFNs acknowledge that within the *Guide to Preparing an Initial Project Description and a Detailed Project Description*, the Agency requires a description 'of any change that, as a result of the carrying out of the project, may occur in Canada to the health, social or economic conditions of Indigenous peoples of Canada, based on information that is available to the public or derived from any engagement undertaken with the Indigenous peoples of Canada'. While we appreciate the intention of such a description, these phrases do not accurately reflect the lived reality of our people, the full scope of real and potential adverse impacts or effects, or our ways of knowing and being. Respectfully, our communities are not 'of' Canada. We are not owned or possessed by any entity. We pre-existed the creation and formation of Canada, whose jurisdiction, and sovereignty, are imposed over our pre-existing sovereignty, and Rights. As such, we have chosen a different title and term for this section which is meant to meet the requirements of the IMTLR, while utilizing different language to better reflect our values, knowledge, and lived experiences, as well as encompass a more fulsome understanding of the scope of real and potential adverse impacts and effects of the NNW Project.

wellbeing. OPG ownership of the NNW site, as well as the imposition of Crown jurisdiction and private ownership over the surrounding areas, have limited our ability to freely access the Lands, Waters and all Relatives, including our cultural landscapes, places of cultural and spiritual significance. This has disrupted our direct and indirect relationships with our Relatives.

These Lands and Waters remain integral to our cultural identity as Salmon People, People of the Big River Mouths, and the Shoreline People. Our summering grounds along the north shore of *Gchi Nibi*, are vital to our seasonal migration patterns, social life, ceremonies, and traditional economies. We gathered along the river mouths and wetlands to fish, harvest medicines, such as *manoomin*, carry out ceremony, care for *Aanikoobigiganaanan*, and to gather and share our Knowledge.

Access to our homelands is critical to sustaining our traditional economy and ways of life. Our homelands, including the Lands and Waters at the NNW site, are filled with our Relatives, who offer gifts of sustenance, medicines, teachings, and guidance. Limitations on access, whether from private ownership, industrial development, environmental degradation, or legal restrictions, disrupt our traditional food systems, economic self-sufficiency, and cultural transmission.

According to Gregory et al.,

projects that might initially appear to have only minimal impacts to the environment can impose significant losses to cultural continuity and social fabric, particularly when an initiative affects the availability of resources used in ceremonies or adversely impacts sacred sites (Gregory & et al, 2016).

For example, disturbing, displacing, mishandling, or neglecting our *Aanikoobigiganaanan* and *kina ngadmawaad* results in profound distress within our communities. It is experienced as a disruption of the natural and spiritual order. Our Right to manage and care for ancestral remains and archaeological artifacts represents an assertion of our cultural sovereignty and self-determination. Decision-making around these matters allows us to uphold our values, laws, and spiritual customs. When actions are taken within our homelands that are contrary to *Mino Bimaadiziwin*, our communities are forced to live with the spiritual, emotional, and physical weight of the imposition of compromised ethics and imbalance. Impacts to the environment represent impacts to the wellbeing of our communities.

Access to, and sovereignty over, the Lands, Waters and all Relatives within our homelands and Treaty Territories, is central to our economic self-determination. Our homelands are more than sources of economic opportunity; They are comprised of complex cultural landscapes with spiritual, cultural, and relational significance. When decisions about development are made externally, by governments or corporations, the risks often include environmental degradation, loss of access to our harvesting areas, and cultural disruption. Economic self-determination

includes making decisions about how and whether development proceeds, including how it could proceed in ways that respect our Relatives and uphold responsibilities to future generations.

The foundation of our understanding of ‘social, economic, and health context’ includes a *Michi Saagiig Anishinaabeg* understanding of social determinants of health and wellbeing, which encompasses physical, social, emotional, spiritual and cultural aspects. Considering the level, extent, and type, of real and potential adverse impacts and effects of the NNW Project, it will be important to broaden the socio-economic analysis to include all determinants of health and wellbeing, rather than assessing it solely from a western perspective. We understand and will assess real and potential adverse impacts and effects of the NNW Project to our equivalent of ‘social, economic, and health context’ for our communities, through a wholistic approach, as part of the MS-WTFNs-led Impact Assessment.

Table 24 provides a preliminary overview of areas of concern related to real and potential adverse impacts of the NNW Project on the social, economic, and health conditions of the MS-WTFNs. This table is based on incomplete project information and does not yet include input obtained directly through community engagement and includes commonly considered topics in the assessment of project interactions on the health and wellbeing of our members and communities. It is based on a preliminary list of MS-WTFNs-specific social determinants of health and wellbeing. Given the time constraints, it has not yet been validated by engagement with our community members and does not include an analysis of how these social determinants are interconnected with other aspects of our place or our Relatives.

The goal of this list is to provide a high-level understanding of the areas of concern that must be more fully studied as part of the IA. As a start, we would like to undertake a MS-WTFNs-led health and wellbeing study to ensure that real and potential adverse socio-economic impacts and effects are evaluated through our own ways of knowing and being, values, and take into consideration the interconnected relationships between Lands, Waters and all Relatives, our identity, our sense of belonging, our spirituality, our Rights, our responsibilities, our economy, and our health and wellbeing.

Table 24: Preliminary Overview of Areas of Concerns Related to Real and Potential Adverse Impacts of the NNW Project on the Social, Economic, and Health Conditions of the MS-WTFNs

Example Socio-Economic Category	Real and Potential Adverse Impact and Effects Categories
Employment and Training Opportunities and	<ul style="list-style-type: none"> access to meaningful, long-term employment and income for our members (+/- employment opportunities)

Example Socio-Economic Category	Real and Potential Adverse Impact and Effects Categories
Working Conditions	<ul style="list-style-type: none"> • quality and cultural safety of work environments (potential +/- experiences in work depending on safety of work environment, i.e. presence of racism, accessibility) • training pathways that reflect MS-WTFNs-identified priorities (e.g., youth, trades, environmental monitoring) • barriers to participation (education, transportation, childcare) • employment as a determinant of health, dignity, and self-determination • workforce influx driving wage inflation or altering local labour markets • impacts to community members, when work opportunities force them to compromise their ethics and cultural responsibilities
Local and Regional Economies	<ul style="list-style-type: none"> • distribution of benefits and burdens between the MS-WTFNs, municipalities, and OPG • opportunities for Indigenous procurement, contracting, or joint ventures, financial benefits and investments (+/- avenues for opportunities) • impacts on traditional and land-based economies (hunting, fishing, tourism, small business) • complete loss of access to shoreline • reduced viability of tourism or fishing due to stigma of nuclear proximity • shift from land-based livelihoods to wage labour economies
Housing, Health, and Community Services	<ul style="list-style-type: none"> • housing demand and affordability changes due to project workforce • pressure on community infrastructure (healthcare, schools, policing, emergency response) • investment in community infrastructure • gaps in culturally relevant or trauma-informed services • opportunities for proponent support or partnership in strengthening local capacity
Food, medicine, and water sovereignty and security	<ul style="list-style-type: none"> • access to healthy traditional food and medicines (restricted access to harvest, increased costs of food) • concerns about safety of eating and harvesting from the land • perceived or real contamination of water and water Relatives • disruption to food security, seasonal harvests and community sharing • disruption to Knowledge transfer with respect to food and harvesting (leading to loss of practice or plans for revitalizing practice) • potential strain on local food programs due to increases in population
Community Wellbeing, Safety, and Mental Health	<ul style="list-style-type: none"> • effects on perceived and actual community safety • impacts on mental health, stress, and trust in land, community, government • impacts to connections, relationships, and ability to carry out responsibilities to Lands, Waters and all Relatives • barriers to engaging in <i>chi weshjigaadeg nike gaazhnaagwaak mewzha</i>, and cultural continuity • increase in fear and anxiety related to potential radiation exposure or nuclear waste accidents; fear of contamination affecting local food and water sources

Example Socio-Economic Category	Real and Potential Adverse Impact and Effects Categories
	<ul style="list-style-type: none"> • social tension or harassment linked to potential outside workforce presence • cultural and spiritual safety considerations (due to stress, disconnect) • measures to support resilience, community supports, and culturally grounded wellness programs
Social, Cultural, and Spiritual Life of the MS-WTFNs	<ul style="list-style-type: none"> • impacts to community cohesion, governance, and intergenerational Knowledge transfer • effects on ceremonies, harvesting practices, and access to cultural landscapes (i.e. restricted access to shorelines, points, wetlands, mouths of tributaries etc., used for ceremony or harvesting) • impacts to connection between social wellbeing, cultural continuity, and Rights • Lands, Waters and place as determinants of health • access to clean, safe, and balanced Lands and Waters • cumulative effects of changes to health, wellbeing, identity, spirituality, and livelihoods • responsibilities to protect homelands and Relatives for future generations • disruption of intergenerational teaching due to disrupted access to Lands (including shorelines, wetlands, points etc.), and areas of cultural and spiritual significance
GBA+ (Gender, Inclusion, and Age)	<ul style="list-style-type: none"> • safety concerns for women, youth, and gender-diverse members linked to project workforce • safety concerns and exposure to physical, mental, or radiological health and wellness risks • changes (+/-) to access to jobs, training, leadership roles, across gender-identity (+) and age groups • opportunities or barriers for women, caregivers, gender-diverse (+) members, to benefit from project opportunities • unequal representation of marginalized groups at decision-making tables • changes to caregiving and household burdens due to cost of living, service changes, or workforce pressures • changes to intergenerational Knowledge transfer and relationships between youth, adults, and Elders • potential to strengthen inclusion through Nation-led training, mentorship, and monitoring initiatives
Education and Intergenerational Transfer of our Ways of Knowing and Being	<ul style="list-style-type: none"> • training, mentorship, and cultural learning opportunities created or disrupted by the NNW Project • integration of Indigenous and western knowledge systems in project planning and monitoring • investments in cultural education and continuity programs • barriers to transferring Knowledge through barriers to access, and impacts to Lands, Waters and all Relatives • reduced opportunities for land-based learning due to restricted access • youth displaced from traditional teaching areas

Example Socio-Economic Category	Real and Potential Adverse Impact and Effects Categories
Health Systems and Cultural Safety	<ul style="list-style-type: none"> • accessibility of health services, traditional medicines, and Lands, Waters and all Relatives, for our members near the NNW Project • Role of traditional healers, medicines, and community-based health governance • recognition of health rights under UNDRIP Article 24 and the laws of the MS-WTFNs • risks (real or perceived) from the presence of nuclear activities on the Lands
Historical and Structural Determinants	<ul style="list-style-type: none"> • effects of ongoing colonial processes, systemic racism, and regulatory exclusion • recognition of intergenerational trauma, resilience, and self-governance as health determinants
Rights, Relatives, and Responsibilities	<ul style="list-style-type: none"> • Our Right to self-determine health, wellbeing, and participation in decision-making • responsibilities to Lands, Waters and all Relatives, and to our future generations • impacts to relationships within and between Relatives • impacts to Relatives and Rights • impacts of the NNW Project proceeding without our FPIC • unjustifiable infringement on our Rights • breakdown of trust and relational governance • undermining of MS-WTFNs-led monitoring and self-determination in caring for and managing our homelands and Treaty Territories

OPG remains committed to protecting the environment and will create opportunities for meaningful engagement on real and potential impacts to Aboriginal and Treaty rights and interests and to identify mitigation and/or accommodation measures with input from Rights-holding First Nations and interested Indigenous communities. These commitments are reinforced by OPG’s dedication to reconciliation and to renewing its relationships with Indigenous peoples.

OPG has developed a RAP (Ontario Power Generation, 2024) to advance reconciliation with Rights-holding First Nations and interested Indigenous communities, businesses, and organizations. Section 1.4 introduces the RAP and the five goals OPG has set to maintain OPG’s commitment to reconciliation. The goals will be advanced through key actions, which are shared publicly through OPG’s annual *Reconciliation Action Plan Report*. Project planning, including mitigation and enhancement measures will be informed by key actions of the RAP, including OPG’s commitments to:

- grow OPG's economic impact for First Nations and Indigenous communities and businesses to \$1 billion over the next 10 years, through ongoing operations, projects and initiatives
- increase the representation of Indigenous employees across all levels and businesses of OPG
- work with the Indigenous Opportunities Network (ION) to grow the Indigenous skilled talent pool within OPG and the broader energy industry
- foster the next generation of Indigenous Energy professionals through the development of a partnership with a post-secondary institution.

A deeper understanding, identification, evaluation, and analysis of the real and potential impacts of the NNW Project on Rights-holding First Nations and interested Indigenous communities will continue to evolve throughout the NNW Project's lifecycle as new information, frameworks, studies, data and knowledge becomes available, based on time, resources and capacity. OPG will work with Rights-holding First Nations and interested Indigenous communities to identify, understand, evaluate and analyze the real and potential impacts of the NNW project, as well as to incorporate Indigenous Knowledge, as directed by Rights-holding First Nations and interested Indigenous communities, into the assessment. OPG understands the importance of obtaining consent from Rights-holding First Nations and interested Indigenous communities before incorporating any Indigenous Knowledge provided.

5.9 Greenhouse Gas Emissions Estimate

The IESO, in its 2025 Annual Planning Outlook (APO), forecasts that Ontario's electricity demand will grow by 2050, driven by electrification across sectors, population growth, and economic expansion (Independent Electricity System Operator, 2025). Ontario's Integrated Energy Plan *Energy for Generations* provides a framework for government planning emphasizing the required increase in system capacity. *Energy for Generations* outlines a coordinated strategy integrating electricity, natural gas, hydrogen, and other fuels to ensure affordability, reliability, and sustainability. It supports significant investments in nuclear expansion, battery storage, transmission infrastructure, and distributed energy resources. The plan also maintains natural gas as a transitional and reliability resource, while enabling the growth of low-carbon alternatives. In 2024, Ontario's electricity generation remained predominantly low carbon, with nuclear and hydroelectric sources supplying the majority of grid output. This supply mix is expected to evolve as new technologies and clean energy projects come online, contributing to Ontario's decarbonization goals (Ministry of Energy and Electricity, 2025).

This GHG estimate has been prepared using the methodology set out by the SACC (Environment and Climate Change Canada, 2022) and the *Draft Technical Guide Related to the Strategic Assessment of Climate Change* (Environment and Climate Change Canada, 2021). The GHG estimate is summarized in Table 27, and is considered preliminary and will be revised during the Impact Statement phase of the project as more information becomes available. This technical guide requires that the IPD estimate the NNW Project GHG emissions using Equation 1.

Equation 1:

Net GHG Emissions

$$\begin{aligned} &= \text{Direct GHG Emissions} + \text{Acquired Energy GHG Emissions} \\ &- \text{Avoided Domestic GHG emissions} - \text{Offset Measures} \end{aligned}$$

Where each term of Equation 1 is defined as the following and applicability to the NNW Project is expanded below:

- net GHG emissions are indicative of the potential maximum design throughput or NNW Project capacity after accounting for deductions
- direct GHG emissions are emissions generated by potential activities that are within the NNW Project scope
- acquired energy GHG emissions are those associated with the potential generation of electricity, heat, steam or cooling, purchased or acquired from a third party for the NNW Project
- avoided domestic GHG emissions are emissions that are reduced or eliminated in Canada as a result of the proposed NNW Project
- offset measures encompass the sum of offset credits, CO₂ captured and stored, and corporate-level initiatives.

Ideally, the potential direct and acquired GHG emissions for the NNW Project would be estimated by considering activities during the site preparation, construction, operation and maintenance, decommissioning, and site closure and release from regulatory control phases. At this stage for the IPD, in the absence of detailed descriptions of the technology and construction methodologies for the NNW Project, the direct and acquired GHG emissions are estimated using reference lifecycle analysis values (i.e., lifecycle emissions) which are related to the construction and operation of a nuclear generating station. Since these lifecycle analysis values

consider all aspects related to direct and acquired GHG emissions, Equation 1 can be simplified to Equation 2 and 3 as follows:

Equation 2:

$$\begin{aligned} \text{Net GHG Emissions} &= [\text{Direct and Acquired GHG Emissions}] \\ &\quad - \text{Avoided Domestic GHG Emissions} - \text{Offset Measures} \end{aligned}$$

Equation 3:

$$\begin{aligned} \text{Net GHG Emissions} &= \text{Life Cycle Emissions} - \text{Avoided Domestic GHG Emissions} \\ &\quad - \text{Offset Measures} \end{aligned}$$

Net emissions considered potential direct emissions, acquired energy emissions, avoided domestic emissions, and potential offset measures. In the absence of project-specific detailed design and construction information, direct and acquired emissions were conservatively estimated using lifecycle emission factors from peer-reviewed literature (Gibon & Hahn Menacho, 2023) (Schlömer & et al, 2014) for comparable nuclear facilities and are presented in Table 25. Avoided emissions were derived from forecasted grid emission intensities in the IESO APO (Independent Electricity System Operator, 2025) and are presented in Table 26. Offset measures and carbon capture were not considered at this stage and are currently not anticipated to be required for the project to reach net-zero GHG emissions following Equation 1, ensuring results remain conservative and preliminary.

Table 25: Estimated Lifecycle Emissions for the NNW Project

Lifecycle Emission Process	GHG Emission Process Contribution ¹⁶⁴	Lower Lifecycle GHG Emission Estimate Breakdown (kilotonnes CO ₂ e) ^{165, 166}	Higher Lifecycle GHG Emission Estimate Breakdown (kilotonnes CO ₂ e) ¹⁶⁷
Fuel Mining and Milling	46%	15,486	30,464
Conversion, Enrichment and Fuel Fabrication	23%	7,743	15,232
Construction	13%	4,376	8,609
Operation and Maintenance	5%	1,683	3,311
Downstream Processes (Decommissioning, Spent Fuel Management, Waste Disposal, etc.)	13%	4,376	8,609
Total Lifecycle Emissions	100%	33,664	66,225

Table 26: Estimated Avoided Domestic GHG Emissions for the NNW Project

Year	NNW Project Annual Energy Production (TWh)	Estimated Annual Avoided Domestic GHG Emissions (kilotonnes CO ₂ e) ¹⁶⁸
2043	19.71	2,395.74
2044	39.42	4,791.47
2045	59.13	7,187.21
2046	78.84	9,582.94
2047	78.84	9,582.94
2048	78.84	9,582.94
2049	78.84	9,582.94
2050	78.84	9,582.94

¹⁶⁴ Lifecycle GHG emission contributions by process as determined from the parametric lifecycle assessment by Gibon and Hahn Menacho (2023).

¹⁶⁵ The total estimated energy output for the NNW Project was calculated to be 5,518.8 TWh based on the assumptions of a 70-year operating period, 10,000 MW capacity and 90% capacity factor.

¹⁶⁶ Lower lifecycle GHG emission estimates were calculated by multiplying the total estimated energy output of 5,518.8 TWh by the process contribution percentage and a lifecycle emission factor of 6.1 CO₂e/kWh from Gibon and Hahn Menacho (2023).

¹⁶⁷ Higher lifecycle GHG emission estimates were calculated by multiplying the total estimated energy output of 5,518.8 TWh by the process contribution percentage and a lifecycle emission factor of 12 CO₂e/kWh from Schlömer et al. (2014).

¹⁶⁸ Estimated annual avoided domestic GHG emissions consider an estimated emissions factor of 0.122 megatonnes CO₂e/TWh based on data presented by IESO (2025).

Year	NNW Project Annual Energy Production (TWh)	Estimated Annual Avoided Domestic GHG Emissions (kilotonnes CO ₂ e) ¹⁶⁸
Total (2043-2050)¹⁶⁹	-	62,289.12

As summarized in Table 27 and in accordance with Equation 3, the net GHG emission estimates indicate a range of a net removal of 28,624 kt CO₂e to a net addition of 3,936 kt CO₂e. Over the full operating life of the NNW Project, avoided emissions are expected to substantially exceed project-related emissions, resulting in significant long-term net GHG reductions.

Table 27: Net GHG Emissions for the NNW Project

Net GHG Estimate Scenario	Estimated Lifecycle GHG Emissions (kilotonnes CO ₂ e)	Estimated Avoided Domestic GHG Emissions from 2043 to 2050 (kilotonnes CO ₂ e)	Net GHG Emissions up to 2050 (kilotonnes CO ₂ e)
Lower Estimated Lifecycle GHG Emission Scenario	33,664	62,289	-28,624
Higher Estimated Lifecycle GHG Emission Scenario	66,225	62,289	3,936

5.10 Preliminary Estimate of Net Potential Wastes or Emissions Generated (Preliminary)

The site preparation, construction, operation, and decommissioning of the NNW Project will result in potential wastes being generated and emissions released into the environment. Section 5.10.1 and 5.10.2 identify the typical wastes and emissions that may be generated during all the phases of the NNW Project, respectively. The information provided in these sections is preliminary and will be expanded on as the NNW Project develops.

OPG will propose mitigation measures to minimize any wastes and emissions that are released throughout all the phases of the NNW Project ensuring they are within regulatory limits. For

¹⁶⁹ The APO assumes that large new nuclear energy contributions will be coming online in 2043 and therefore, the incremental grid emissions intensity between 2043 and 2050 have been used for estimating avoided domestic GHG emissions in Table 26. If the NNW Project comes online sooner than 2043, the resulting GHG benefits would be achieved soon and result in greater cumulative emissions reductions.

example, implementing best practices in environmental management, such as managing water use efficiently, and the safe handling of waste materials. OPG will develop and use monitoring and diagnostic tools to assess environmental impacts and adjust operations to minimize any real and potential impacts.

We note that the CNSC and NWMO are required to consult with our communities, and any other potentially impacted Rights-holding First Nations, on real and potential adverse impacts and effects of the management, storage, or transportation of nuclear waste through other regulatory and procedural processes. The consent of each MS-WTFN is required prior to any decision to store hazardous waste within our homelands or Treaty Territories.

OPG recognizes that the NNW Project is in the early stage of planning. The PPE contains waste and emission parameters that will be used through the IA process. Future licensing phases will require selection of a reactor technology for the NNW Project, and waste streams and sources of emissions will be refined further at that time.

OPG is committed to the responsible and comprehensive management of all its radioactive waste and has decades of experience in safely providing interim storage of waste generated from our operations. OPG is also committed to the safe management and permanent disposal of this waste.

OPG will adhere to strict regulatory standards and engage in ongoing innovation and engagement with Rights-holding First Nations and interested Indigenous communities around waste to improve environmental sustainability and mitigate real and potential impacts to any Aboriginal and Treaty rights.

Specifically, OPG will develop and operate extensive environmental monitoring programs in collaboration with the MS-WTFNs. These programs will focus on assessing the impact of the Projects activities on human receptors and on what OPG understands from the MS-WTFNs, to be MS-WTFNs' Relatives. They will include, at a minimum, monitoring emissions, water quality, radiation, and ecological health at the NNW site. The data collected will help OPG confirm environmental impacts are minimized and identify trends and potential areas for mitigation or adaptive management.

5.10.1 *Potential Wastes Generated (Preliminary)*

A preliminary list of potentially generated wastes—including hazardous, non-hazardous, and radiological—is provided in Table 28. This list will be refined as the project advances through the IA process. These have been considered for each phase of the NNW Project (site preparation, construction, operation, and decommissioning).

Table 28: Potential Wastes Generated (Preliminary)

Waste	Phase	Potential Waste
Non-Hazardous	Site Preparation and Construction ¹⁷⁰	<ul style="list-style-type: none"> landscaping debris including soil and vegetation (trees, shrubs, grass etc.) excavated soil and rock from foundation work general waste including paper, cardboard, packaging materials, office supplies, etc. domestic refuse including food wastes, plastic bottles and cafeteria and break room wastes etc. non-contaminated maintenance waste including metal scraps, tools, machinery parts and required lubricants and coolants construction waste including wood, concrete, bricks, metals, insulation, drywall etc.
	Operation and Maintenance	<ul style="list-style-type: none"> general waste including paper, cardboard, packaging materials, office supplies, etc. domestic refuse including food wastes, plastic bottles and cafeteria and break room wastes etc. non-contaminated maintenance waste including metal scraps, tools, machinery parts and required lubricants and coolants non-contaminated construction debris from maintenance operations
	Decommissioning	<ul style="list-style-type: none"> packaging materials including cardboard, plastic, and pallets construction waste including wood, concrete, bricks, metals, insulation, drywall etc. general waste including paper, cardboard, packaging materials, office supplies, etc. domestic refuse including food wastes, plastic bottles and cafeteria and break room wastes etc. non-contaminated maintenance waste including metal scraps, tools, machinery parts and required lubricants and coolants
Hazardous	Site Preparation and Construction ¹⁷⁰	<ul style="list-style-type: none"> chemical solvents used in machinery maintenance and cleaning

¹⁷⁰ Site preparation and construction have been combined for the purposes of this table as there are commonalities of potential emissions from activities undertaken in these phases.

Waste	Phase	Potential Waste
		<ul style="list-style-type: none"> fuel and oil spills from construction vehicles and equipment
	Operation and Maintenance	<ul style="list-style-type: none"> chemical solvents, cleaning agents and corrosive chemicals (acid and bases) used in operation fuel and oil spills from operation vehicles and equipment
	Decommissioning	<ul style="list-style-type: none"> chemical solvents used in machinery maintenance and cleaning fuel and oil spills from construction vehicles and equipment paints and coatings potentially containing volatile organic compounds and heavy metals (if applicable)
Radiological	Site Preparation and Construction ¹⁷⁰	<ul style="list-style-type: none"> N/A
	Operation and Maintenance	<ul style="list-style-type: none"> LLW¹⁷¹ including paper, rags, tools, clothing, filters, Personal Protective Equipment, items from systems changed out through maintenance, etc. Intermediate Level Waste (ILW) including resins, chemical sludges, metal fuel cladding HLW including used fuel
	Decommissioning	<ul style="list-style-type: none"> LLW including building materials from demolition (i.e., concrete, plaster, bricks, metals, valves, piping, etc.) paper, rags, tools, clothing, filters, Personal Protective Equipment, etc. ILW including reactor components, contaminated materials, resins, chemical sludges, metal fuel cladding HLW including used fuel

¹⁷¹ LLW contains material with radionuclide content above the established unconditional clearance levels and exemption quantities but generally has limited amounts of long-lived radionuclides. LLW includes contaminated equipment from the operation of nuclear power plants for example, protective shoe covers, clothing, rags, mops, equipment and tools etc.

5.10.2 Potential Emissions to Land, Air, and Water (Preliminary) /
Potential Emissions to Relatives of the MS-WTFNs
(Preliminary)

A preliminary list of the potential emissions to air, water, and land have been considered for each phase of the NNW Project (site preparation, construction, operation, and decommissioning) and summarized in Table 29. This list will be refined as the project advances through the IA process.

Table 29: Potential Emissions to Land, Air and Water (Preliminary)

Environment	Phase	Potential Emission Generated
In the air <i>Nodin</i> and Relatives that rely on the air	Site Preparation and Construction ¹⁷⁰	<ul style="list-style-type: none"> suspended particulate matter (PM) or dust from site preparation emissions from vehicles and heavy machinery with internal combustion engines (SO₂, NO_x, CO₂, and PHAs) noise and vibrations from site preparation and construction activities and onsite machinery light emissions
	Operation and Maintenance	<ul style="list-style-type: none"> fugitive dust emissions from maintenance activities emissions from vehicles and heavy machinery radiological and non-radiological emissions from operations noise from onsite machinery light emissions
	Decommissioning	<ul style="list-style-type: none"> fugitive dust emissions from dismantling activities emissions from vehicles and heavy machinery radiological emissions from demolition and dismantling activities noise and vibrations from dismantling activities and onsite machinery light emissions
In or on the water <i>Nibi</i> and Relatives that rely on Waters	Site Preparation and Construction ¹⁷⁰	<ul style="list-style-type: none"> noise and vibrations from site preparation and construction machinery washout wastewater from concrete production temporary dewatering of open excavations or cofferdams

Environment	Phase	Potential Emission Generated
		<ul style="list-style-type: none"> temporary lake sediment disturbances and debris generation during in-lake construction activities process and sanitary wastewater (sewage) runoff and stormwater discharges to surface water
	Operation and Maintenance	<ul style="list-style-type: none"> radiological and non-radiological effluents from operations noise and vibrations from operations and onsite machinery process and sanitary wastewater (sewage) thermal water discharge
	Decommissioning	<ul style="list-style-type: none"> noise and vibrations from dismantling activities and onsite machinery radiological and non-radiological effluents from decommissioning activities process and sanitary wastewater (sewage) runoff and stormwater discharge to surface water
In or on the land <i>Aki and Relatives that rely on the Lands</i>	Site Preparation and Construction ¹⁷⁰	<ul style="list-style-type: none"> vibrations from site preparation and construction activities and onsite machinery
	Operation and Maintenance	<ul style="list-style-type: none"> vibrations from reactor operations and onsite machinery
	Decommissioning	<ul style="list-style-type: none"> vibrations from dismantling activities and onsite machinery

5.11 Summary of Real and Potential Impacts (Preliminary)

Table 30 to Table 32 provide a preliminary summary of real and potential impacts of the NNW Project, as well as potential mitigation measures to reduce or eliminate potential impacts that may occur as a result of the NNW Project. A more comprehensive impacts assessment will be completed as part of the IA process and ongoing engagement activities.


The summary of real and potential impacts, as well as potential mitigation measures, presented in Table 30 to Table 32 were identified by OPG, and our communities will need to closely review these and determine what is required. While we have provided preliminary input into these Tables, they are in no way complete; The lack of complete information regarding the NNW Project, means we have been unable to provide meaningful comments on this section. Much of

this detail will require additional information, including detailed project plans, proposed infrastructure, siting plans, etc. It will also need to be informed by additional studies as identified by our communities, including our MS-WTFNs-led Impact Assessment.

Real and potential impacts and mitigation measures have been categorized under the following table headings, “Real and Potential Impacts to Components of the Environment within the Legislative Authority of Parliament” (relating to section 19 of the IMTLR), “Real and Potential Impacts to the Indigenous Peoples of Canada” (relating to section 21 and 22 of the IMTLR), and “Real and Potential Impacts to Physical and Biological Environments, and Health, Social, and Economic Contexts” (relating to section 22.1 of the IMTLR).


In the case of all three summary tables due to the overlapping nature of activities and potential effects, site preparation and construction activities have been combined to reduce duplication and provide a more streamlined summary.

Table 30: Real and Potential Impacts to Components of the Environment within the Legislative Authority of Parliament (Preliminary)¹⁷²


Physical and Biological Environment	Federally Protected Species (Section 19 of the IMTLR)	Project Phase	Real and Potential Impacts	Potential Mitigations
<p>Aquatic</p> 	<p>Fish and fish habitat, as defined in subsection 2(1) of the Fisheries Act¹⁷³</p>	<p>Site Preparation and Construction</p>	<ul style="list-style-type: none"> • loss of fish habitat due to alteration of streams, lake infilling, construction of in-water structures (intake and discharge structures, shoreline protection) • sensory disturbances to fish due to underwater noise and vibration from blasting • change in surface water quality due to erosion and sedimentation from stormwater run-off during vegetation clearing resulting in effects to fish and fish habitat • change in stormwater quality due to use of construction equipment and potential spills resulting in effects on fish and fish habitat • impacts to Fish Relatives and their habitat results in impacts to: <ul style="list-style-type: none"> ○ our cultural practices including harvesting 	<ul style="list-style-type: none"> • avoid to the extent practical areas of fish habitat • locate to the extent practical intake and discharge structures in areas where effects can be reduced • development of an appropriate Fish Habitat Compensation Plan to satisfy the requirements of a federal Fisheries Act authorization • capture and release fish from in-water work areas as work advances • development of blasting plan and appropriate setbacks • implement stormwater management and spills management plan to manage erosion, sedimentation and stormwater quality • environmental monitoring and adaptive management to confirm

¹⁷² The real and potential impacts and proposed mitigations within this table were prepared by OPG. The MS-WTFNs were not involved in the identification of these mitigations and while we have provided preliminary feedback within, additional MS-WTFNs-led research is required to identify and include real and potential adverse impacts and effects of the NNW Project and potential mitigations which are aligned with our ways of knowing and being, and through our own analysis, including through our MS-WTFNs-led Impact Assessment.


¹⁷³ Fish includes: (a) parts of fish, (b) shellfish, crustaceans, marine animals and any parts of shellfish, crustaceans or marine animals, and (c) the eggs, sperm, spawn, larvae, spat and juvenile stages of fish, shellfish, crustaceans and marine animals; fish habitat means water frequented by fish and any other areas on which fish depend directly or indirectly to carry out their life processes, including spawning grounds and nursery, rearing, food supply and migration areas.

Physical and Biological Environment	Federally Protected Species (Section 19 of the IMTLR)	Project Phase	Real and Potential Impacts	Potential Mitigations
			<ul style="list-style-type: none"> ○ access to and quality of our traditional food and medicine sources ○ access to and quality of socio-economic opportunities for our people ○ the wellbeing of our other Relatives that rely on Fish Relatives and fish habitat ● impacts to our identity (Salmon People), spirituality, sense of belonging and our wellbeing as Fish Relatives are part of our clan and spiritual naming systems 	<p>appropriate mitigation measures are in place and effective</p>
<p>Aquatic</p> 	<p>Fish and fish habitat, as defined in subsection 2(1) of the Fisheries Act¹⁷⁴</p>	<p>Operation and Maintenance</p>	<ul style="list-style-type: none"> ● loss of fish due to impingement and entrainment through the intake structure ● change in fish behavior and fish habitat due to thermal (warmer water) discharge associated with the operation of the cooling water system ● change in lake water quality due to contaminants in stormwater and liquid effluent discharges resulting in effects on fish and aquatic habitat ● impacts to Fish Relatives and their habitat results in impacts to: 	<ul style="list-style-type: none"> ● reduce impingement and entrainment through the design and location of the intake structure ● development of an appropriate Fish Habitat Compensation Plan to satisfy the requirements of a federal Fisheries Act authorization ● design discharge structure to reduce temperature of water discharged ● treatment of effluent to meet regulatory requirements

¹⁷⁴ Fish includes: (a) parts of fish, (b) shellfish, crustaceans, marine animals and any parts of shellfish, crustaceans or marine animals, and (c) the eggs, sperm, spawn, larvae, spat and juvenile stages of fish, shellfish, crustaceans and marine animals; fish habitat means water frequented by fish and any other areas on which fish depend directly or indirectly to carry out their life processes, including spawning grounds and nursery, rearing, food supply and migration areas.


Physical and Biological Environment	Federally Protected Species (Section 19 of the IMTLR)	Project Phase	Real and Potential Impacts	Potential Mitigations
			<ul style="list-style-type: none"> ○ our cultural practices including harvesting ○ access to and quality of our traditional food and medicine sources ○ access to and quality of socio-economic opportunities for our people ○ the wellbeing of our other Relatives that rely on Fish Relatives and fish habitat <ul style="list-style-type: none"> ● impacts to our identity (Salmon People), spirituality, sense of belonging and our wellbeing as Fish Relatives are part of our clan and spiritual naming systems 	<ul style="list-style-type: none"> ● incorporate good industry management practices with respect to stormwater management such as oil and grit separators and stormwater management ponds ● environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective
<p>Aquatic</p> 	<p>Fish and fish habitat, as defined in subsection 2(1) of the Fisheries Act¹⁷⁵</p>	<p>Decommissioning</p>	<ul style="list-style-type: none"> ● change in surface water quality due to erosion and sedimentation from dismantling and demolition activities, resulting in effects on fish and fish habitat ● change in stormwater quality due dismantling and demolition activities and potential spills, resulting in effects on fish and fish habitat ● loss of fish due to dismantling or infilling of in-water structures, if required 	<ul style="list-style-type: none"> ● implement stormwater management plan to manage erosion, sedimentation and stormwater quality ● development of an appropriate Fish Habitat Compensation Plan to satisfy the requirements of a federal Fisheries Act authorization ● capture and release fish from in-water work areas as work advances ● capture and release fish from in-water work areas as work advances

¹⁷⁵ Fish includes: (a) parts of fish, (b) shellfish, crustaceans, marine animals and any parts of shellfish, crustaceans or marine animals, and (c) the eggs, sperm, spawn, larvae, spat and juvenile stages of fish, shellfish, crustaceans and marine animals; fish habitat means water frequented by fish and any other areas on which fish depend directly or indirectly to carry out their life processes, including spawning grounds and nursery, rearing, food supply and migration areas.


Physical and Biological Environment	Federally Protected Species (Section 19 of the IMTLR)	Project Phase	Real and Potential Impacts	Potential Mitigations
			<ul style="list-style-type: none"> • sensory disturbances to fish due to underwater noise and vibration from dismantling or infilling of in-water structures, if required • impacts to Fish Relatives and their habitat results in impacts to: <ul style="list-style-type: none"> ○ our cultural practices including harvesting ○ access to and quality of our traditional food and medicine sources ○ access to and quality of socio-economic opportunities for our people ○ the wellbeing of our other Relatives that rely on Fish Relatives and fish habitat • impacts to our identity (Salmon People), spirituality, sense of belonging and our wellbeing as Fish Relatives are part of our clan and spiritual naming systems 	<ul style="list-style-type: none"> • environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effectiveness
<p>Aquatic</p> 	<p>Aquatic species, as defined in subsection 2(1) of the SARA¹⁷⁶</p>	<p>Site Preparation and Construction</p>	<ul style="list-style-type: none"> • loss of aquatic SAR habitat due to alteration of streams, lake infilling, construction of in-water structures (intake and discharge structures, shoreline protection) 	<ul style="list-style-type: none"> • avoid to the extent practical areas of aquatic SAR habitat • locate to the extent practical intake and discharge structures in areas where effects can be minimized • salvage and relocate aquatic SAR where practical, to a suitable existing or created habitat in

¹⁷⁶ Aquatic species means a wildlife species that is a fish, as defined in section 2 of the Fisheries Act, or a marine plant, as defined in section 47 of that Act.


Physical and Biological Environment	Federally Protected Species (Section 19 of the IMTLR)	Project Phase	Real and Potential Impacts	Potential Mitigations
			<ul style="list-style-type: none"> • sensory disturbances to aquatic SAR (fish) due to underwater noise and vibration from blasting • change in surface water quality due to erosion and sedimentation from stormwater run-off during vegetation clearing resulting in effects to aquatic SAR and their habitat • change in stormwater quality due to use of construction equipment and potential spills, resulting in effects on aquatic SAR and their habitat • impacts to Fish Relatives and their habitat results In Impacts to: <ul style="list-style-type: none"> ○ our cultural practices Including harvesting ○ access to and quality of our traditional food and medicine sources ○ access to and quality of socio-economic opportunities for our people ○ the wellbeing of our other Relatives that rely on Fish Relatives and fish habitat • impacts to our identity (Salmon People), spirituality, sense of belonging and our wellbeing as Fish Relatives are part of our clan and spiritual naming systems 	<p>advance of site preparation activities</p> <ul style="list-style-type: none"> • capture and release aquatic SAR (fish) from in-water work areas as work advances • development of blasting plan and appropriate setbacks • implement stormwater management and spills management to manage erosion, sedimentation and stormwater quality • environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective

Physical and Biological Environment	Federally Protected Species (Section 19 of the IMTLR)	Project Phase	Real and Potential Impacts	Potential Mitigations
<p>Aquatic</p> 	<p>Aquatic species, as defined in subsection 2(1) of the SARA¹⁷⁷</p>	<p>Operation and Maintenance</p>	<ul style="list-style-type: none"> • loss of aquatic SAR due to impingement and entrainment through the intake structure • change in aquatic SAR (fish) behavior and aquatic SAR habitat due to thermal (warmer water) discharge associated with the operation of the cooling water system • change in surface water quality due to contaminants in stormwater and liquid effluent (wastewater) discharged to the lake, resulting in effects on aquatic SAR • impacts to Fish Relatives and their habitat results in impacts to: <ul style="list-style-type: none"> ○ our cultural practices including harvesting ○ access to and quality of our traditional food and medicine sources ○ access to and quality of socio-economic opportunities for our people ○ the wellbeing of our other Relatives that rely on Fish Relatives and fish habitat • impacts to our identity (Salmon People), spirituality, sense of belonging and our 	<ul style="list-style-type: none"> • reduce impingement and entrainment through the design and location of the intake structure • design discharge structure to reduce temperature of water discharged • incorporate good industry management practices in with respect to stormwater management such as oil and grit separators stormwater management ponds • treatment of effluent to meet regulatory requirements • environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective



¹⁷⁷ Aquatic species means a wildlife species that is a fish, as defined in section 2 of the Fisheries Act, or a marine plant, as defined in section 47 of that Act.

Physical and Biological Environment	Federally Protected Species (Section 19 of the IMTLR)	Project Phase	Real and Potential Impacts	Potential Mitigations
			<p>wellbeing as Fish Relatives are part of our clan and spiritual naming systems</p>	
<p>Aquatic</p> 	<p>Aquatic species, as defined in subsection 2(1) of the SARA¹⁷⁸</p>	<p>Decommissioning</p>	<ul style="list-style-type: none"> • change in surface water quality due to erosion and sedimentation from dismantling and demolition activities, resulting in effects on fish and fish habitat • change in stormwater quality due to dismantling and demolition activities and potential spills, resulting in effects on fish and fish habitat • loss of fish due to dismantling or infilling of in-water structures • impacts to Fish Relatives and their habitat results in impacts to: <ul style="list-style-type: none"> ○ our cultural practices including harvesting ○ access to and quality of our traditional food and medicine sources ○ access to and quality of socio-economic opportunities for our people ○ the wellbeing of our other Relatives that rely on Fish Relatives and fish habitat 	<ul style="list-style-type: none"> • stormwater management plan to manage erosion, sedimentation and stormwater quality • capture and release fish from in-water work areas as work advances • environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective

¹⁷⁸ Aquatic species means a wildlife species that is a fish, as defined in section 2 of the Fisheries Act, or a marine plant, as defined in section 47 of that Act.

Physical and Biological Environment	Federally Protected Species (Section 19 of the IMTLR)	Project Phase	Real and Potential Impacts	Potential Mitigations
			<ul style="list-style-type: none"> impacts to our identity (Salmon People), spirituality, sense of belonging and our wellbeing as Fish Relatives are part of our clan and spiritual naming systems 	
<p>Terrestrial</p> 	<p>Migratory birds, as defined in subsection 2(1) of the MBCA, 1994¹⁷⁹</p>	<p>Site Preparation and Construction</p>	<ul style="list-style-type: none"> loss of nesting and feeding areas for migratory birds sensory disturbances to migratory birds due to site preparation and construction activities (e.g., increased dust, noise, and vibration) and human presence impacts to Bird Relatives and their habitat results in impacts to: <ul style="list-style-type: none"> our cultural practices including harvesting access to and quality of our traditional food and medicine sources access to and quality of socio-economic opportunities for our people the wellbeing of our other Relatives that rely on Bird Relatives and bird habitat impacts to our identity, spirituality, sense of belonging and our wellbeing as Bird Relatives are part of our clan and spiritual naming systems 	<ul style="list-style-type: none"> avoid to the extent practical areas of nesting and feeding avoid removal of nesting and feeding areas during breeding season implement dust and noise management plan to reduce noise and dust levels at source development of blasting plan and appropriate setbacks develop guidance to train staff on wildlife interactions environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective

¹⁷⁹ Migratory bird means a migratory bird referred to in the Convention, and includes the sperm, eggs, embryos, tissue cultures and parts of the bird.

Physical and Biological Environment	Federally Protected Species (Section 19 of the IMTLR)	Project Phase	Real and Potential Impacts	Potential Mitigations
<p>Terrestrial</p> 	<p>Migratory birds, as defined in subsection 2(1) of the MBCA, 1994¹⁸⁰</p>	<p>Operation and Maintenance</p>	<ul style="list-style-type: none"> • increase in migratory bird mortality due to bird strikes (collisions) against buildings and structures, and bird entanglement in security fencing • impacts to Bird Relatives and their habitat results in impacts to: <ul style="list-style-type: none"> ○ our cultural practices including harvesting ○ access to and quality of our traditional food and medicine sources ○ access to and quality of socio-economic opportunities for our people ○ the wellbeing of our other Relatives that rely on Bird Relatives and bird habitat • impacts to our identity, spirituality, sense of belonging and our wellbeing as Bird Relatives are part of our clan and spiritual naming systems 	<ul style="list-style-type: none"> • use of appropriate level of lighting on buildings and structures to reduce bird strikes • incorporate in the design of security fencing systems measures to reduce the incidence of bird entanglement and entrapment to the extent practicable • environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective
<p>Terrestrial</p> 	<p>Migratory birds, as defined in subsection 2(1) of the MBCA, 1994¹⁸⁰</p>	<p>Decommissioning</p>	<ul style="list-style-type: none"> • sensory disturbances to migratory birds due to dismantling and demolition activities (e.g. increased dust, noise and vibration) • impacts to Bird Relatives and their habitat results in impacts to: 	<ul style="list-style-type: none"> • implement dust and noise management plan to reduce noise and dust levels at source • development of blasting plan and appropriate setbacks • environmental monitoring and adaptive management to confirm

¹⁸⁰ Migratory bird means a migratory bird referred to in the Convention, and includes the sperm, eggs, embryos, tissue cultures and parts of the bird.


Physical and Biological Environment	Federally Protected Species (Section 19 of the IMTLR)	Project Phase	Real and Potential Impacts	Potential Mitigations
			<ul style="list-style-type: none"> ○ our cultural practices including harvesting ○ access to and quality of our traditional food and medicine sources ○ access to and quality of socio-economic opportunities for our people ○ the wellbeing of our other Relatives that rely on Bird Relatives and bird habitat ● impacts to our identity, spirituality, sense of belonging and our wellbeing as Bird Relatives are part of our clan and spiritual naming systems 	<p>appropriate mitigation measures are in place and effective</p> <ul style="list-style-type: none"> ●

Table 31: Real and Potential Impacts to the Indigenous Peoples of Canada (Preliminary)¹⁸¹

Indigenous Peoples (Section 21 and 22 of the IMTLR)	Project Phase (Section 2.6 of the IPD)	Real and Potential Adverse Impacts and Effects	Preliminary Potential Mitigations
Indigenous Cultural Landscapes and Places of Cultural and Spiritual Significance	All Phases	<ul style="list-style-type: none"> • loss of access to, and alteration to, our cultural landscapes and places of cultural and spiritual significance affects our identity as the Salmon People, Shoreline People, and People of the Big River Mouths • damage or disconnection from our cultural landscapes and places of cultural and spiritual significance disrupts our Knowledge, responsibilities, language, wellbeing, and our ways of life • lack of access to, and alteration to, our cultural landscapes and places of spiritual and cultural significance, represent impacts to our Rights 	<ul style="list-style-type: none"> • restore and ensure meaningful access to culturally and spiritually significant places, within the NNW site, including for ceremony, harvesting, education, etc. • protect and conserve Mishkode • preserve, restore, and monitor, remaining wetlands within, and around, the NNW site, recognizing them as vital cultural, ecological, and ceremonial spaces • formally protect the any archaeological sites within or near the NNW site with the guidance of the MS-WTFNs • support Rights- and Knowledge-based studies, led by the MS-WTFNs, to further understand the cultural, spiritual, historical, and ecological, significance of the NNW site, and surrounding areas, including identification of additional places, relationships, and responsibilities, relevant to the NNW Project • engage in formal Nation-to-Nation discussions to determine appropriate governance structures and protocols for the use, protection, and sharing, of Knowledge, identified through the NNW Project

¹⁸¹ While we have provided preliminary input within this IPD which has been captured within this table, additional MS-WTFNs-led research is required to identify and include real and potential adverse impacts and effects of the NNW Project and potential mitigations which are aligned with our ways of knowing and being, and through our own analysis, including through our MS-WTFNs-led Impact Assessment.

Indigenous Peoples (Section 21 and 22 of the IMTLR)	Project Phase (Section 2.6 of the IPD)	OPG's Understanding of Shared Potential Impacts (as shared by MS- WTFNs)	Potential Mitigations
Indigenous Physical and Cultural Heritage, and Structures, Sites or Things of Significance	All Phases	<ul style="list-style-type: none"> as OPG understands there are real and potential impacts to the homelands of the MS-WTFNs from any changes to landscape and areas within the NNW site, including Lake Ontario shoreline as OPG understands there are real and potential impacts to the ability for MS-WTFNs to honour past and future connection and histories with land 	<ul style="list-style-type: none"> OPG is committed to working with Rights-holding First Nations and interested Indigenous communities to identify, understand, avoid, reduce, and where necessary, consider accommodations (including possible compensation) from real and potential impacts of the NNW Project on Indigenous peoples, as well as on Aboriginal and Treaty rights, values, Knowledge and ways of being OPG will continue engagement with Rights-holding First Nations and interested Indigenous communities to understand real and potential impacts as further understanding and frameworks are developed through the IA process
Indigenous Peoples (Section 21 and 22 of the IMTLR)	Project Phase (Section 2.6 of the IPD)	Real and Potential Adverse Impacts and Effects	Preliminary Potential Mitigations
Indigenous Relationships with Lands, Waters, and all Relatives	All Phases	<ul style="list-style-type: none"> disruption to our connections and relationships with the Lands, Waters and all Relatives, by the imposition of Crown and private ownership, limiting access to the NNW site, and other areas of spiritual and cultural significance lands, including shorelines, points, islands, maple stands, and wetlands, were taken into private ownership and/or developed contrary to Treaty 	<ul style="list-style-type: none"> restore physical access to culturally and spiritually significant areas within the NNW site, including shorelines, points, and wetlands complete Rights- and Knowledge-based studies, led by the MS-WTFNs, to define areas where our community members can visit and care for Relatives, harvest, and <i>chi weshjigaadeg nike gaazhnaagwaak mewzha</i> recognize and affirm our Rights through formal commitments and inclusion of the MS-WTFNs' Knowledge in planning and decision-making processes

		<p>promises as conveyed to and understood by our people</p> <ul style="list-style-type: none"> • ongoing harm and harassment to our Relatives through development activities and the creation of nuclear waste, which diminishes our ability to exercise our Rights and shrinks areas available to carry out our ways of life • disruption to our identity, our ways of knowing and being, and our wellbeing • inability to harvest directly on the NNW site — an imposed reality, not a choice 	
Indigenous Peoples (Section 21 and 22 of the IMTLR)	Project Phase (Section 2.6 of the IPD)	OPG’s Understanding of Shared Potential Impacts (as shared by MS-WTFNs)	Potential Mitigations
<p>Current Use of Lands and Resources for Traditional Purposes</p> 	All Phases	<ul style="list-style-type: none"> • as OPG understands there are real impacts that have already been felt from disruption by the imposition of Crown and private ownership of the lands and shoreline (limiting access) • as OPG understands any future restrictions or use of the land may further impact MS-WTFNs’ Rights 	<ul style="list-style-type: none"> • OPG is committed to working with Rights-holding First Nations and interested Indigenous communities to identify, understand, avoid, reduce, and where necessary, consider accommodations (including possible compensation) from real and potential impacts of the NNW Project on Indigenous peoples, as well as on Aboriginal and Treaty rights, values, Knowledge and ways of being • OPG will continue engagement with Rights-holding First Nations and interested Indigenous communities to understand real and potential impacts as further understanding and frameworks are developed through the IA process

Indigenous Peoples (Section 21 and 22 of the IMTLR)	Project Phase (Section 2.6 of the IPD)	Real and Potential Adverse Impacts and Effects	Preliminary Potential Mitigations
Health, Social, and Economic Conditions of the MS-WTFNs ¹⁸²	All Phases	<ul style="list-style-type: none"> • employment and training opportunities and working conditions • local and regional economies • housing, health, and community services • food, medicine, and water sovereignty and security • community wellbeing, safety, and mental health • social, cultural, spiritual life • gender inclusion and age • education and intergenerational transfer of Knowledge • health systems and cultural safety • historical and structural determinants • Rights, Relatives, and responsibilities 	<p><i>This will be completed following MS-WTFNs-led studies including (but not limited to), a health and wellbeing study and/or the MS-WTFNs-led Impact Assessment</i></p>
Indigenous Peoples (Section 21 and 22 of the IMTLR)	Project Phase (Section 2.6 of the IPD)	OPG’s Understanding of Shared Potential Impacts (as shared by MS- WTFNs)	Potential Mitigations
Health, Social and Economic Conditions of Indigenous Peoples	All Phases	<ul style="list-style-type: none"> • as OPG understands, identifying real and potential impacts of the NNW Project to the MS-WTFNs requires ways of knowing and being as can only 	<ul style="list-style-type: none"> • OPG is committed to working with Rights-holding First Nations and interested Indigenous communities to identify, understand, avoid, reduce, and where necessary, consider accommodations (including possible

¹⁸² This table is based on incomplete project information and does not yet include input obtained directly through community engagement and includes commonly considered topics in the assessment of the NNW Project’s interactions on the health and wellbeing of our members and communities.



		<p>be collaboratively provided by the MS-WTFNs and goes beyond understanding physical impacts to the environment as characterized in the Western lens</p> <ul style="list-style-type: none"> • as OPG understands, there are real and potential impacts to the Health, Social and Economic Conditions of the MS-WTFNs resulting from the NNW Project 	<p>compensation) from real and potential impacts of the NNW Project on Indigenous peoples, as well as on Aboriginal and Treaty rights, values, Indigenous Knowledge and ways of being</p> <ul style="list-style-type: none"> • OPG will continue engagement with Rights-holding First Nations and interested Indigenous communities to understand real and potential impacts as further understanding and frameworks are developed through the IA process
<p>Indigenous Peoples (Section 21 and 22 of the IMTLR)</p>	<p>Project Phase (Section 2.6 of the IPD)</p>	<p>Real and Potential Adverse Impacts and Effects</p>	<p>Preliminary Potential Mitigations</p>
<p>MS-WTFNs' Rights</p>	<p>All Phases</p>	<ul style="list-style-type: none"> • any real and potential impacts and effects to as protected by our Treaties (our Treaty Rights), including (but not limited to): <ul style="list-style-type: none"> ○ shorelines ○ islands ○ points ○ wetlands ○ maple stands ○ mouths of creeks and rivers ○ beaver houses (dams) ○ rice beds • any real or potential adverse impacts or effects to our Aboriginal Rights, including (but not limited to), our cultural practices, nike gaabinjibaad Nishnaabe, kina ngadmawaad, kina gaabmishjigewaad, nike 	<p><i>This will be completed following MS-WTFNs-led studies including (but not limited to), an Indigenous Knowledge study, Cultural and Rights Study, Rights Impact Assessment, and Cumulative Impact Assessment, and/or through a MS-WTFNs-led Impact Assessment</i></p>



		<p>wanishaawaad and ways of knowing and being</p> <ul style="list-style-type: none"> any real or potential adverse impacts or effects to our Inherent Rights, including (but not limited to), our sense of identity, our ways of life, our responsibilities, our wellbeing, and our ability to make decisions about our communities, our homelands, and Treaty Territories 	
Indigenous Peoples (Section 21 and 22 of the IMTLR)	Project Phase (Section 2.6 of the IPD)	OPG's Understanding of Shared Potential Impacts (as shared by MS-WTFNs)	Potential Mitigations
Aboriginal and Treaty Rights	All Phases	<ul style="list-style-type: none"> as OPG understands there are real and potential impacts to WTFNs' Rights from the NNW Project as OPG understands real and potential impacts to MS-WTFNs' ways of knowing and being, represent impacts to MS-WTFNs' Rights as OPG understands, only MS-WTFNs can define and interpret their ways of knowing and being 	<ul style="list-style-type: none"> OPG is committed to working with Rights-holding First Nations and interested Indigenous communities to identify, understand, avoid, reduce, and where necessary, consider accommodations (including possible compensation) from real and potential impacts of the NNW Project on Indigenous peoples, as well as on Aboriginal and Treaty rights, values, Indigenous Knowledge and ways of being OPG will continue engagement with Rights-holding First Nations and interested Indigenous communities to understand real and potential impacts as further understanding and frameworks are developed through the IA process



Table 32: Real and Potential Impacts to Physical, Biological Environment, and Health, Social, and Economic Contexts¹⁸³


Physical, Biological Environment, and Health, Social, and Economic Context	Factors Defined in Generic TISGs for Nuclear Generating Projects	Project Phase	Real and Potential Impacts	Potential Mitigations
Atmospheric 	Air Quality, GHGs	Site Preparation and Construction	<ul style="list-style-type: none"> change in air quality associated with an increase in dust and/or products of fossil fuel combustion from construction activities and from employee and service vehicles. change in the contribution to global GHGs emissions associated with use of vehicles using fossil fuel, soil excavation and the loss of CO2 uptake capacity from vegetation clearing. 	<ul style="list-style-type: none"> implement dust management plan to reduce dust emissions at their source implement no idling policy, and reduced speed limits include in design measures to reduce emissions at source to meet regulatory limits avoid excavation in high-carbon soils (e.g., wetlands). Where unavoidable, compensate for lost carbon storage environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective
Atmospheric	Air Quality, GHGs	Operation and Maintenance	<ul style="list-style-type: none"> change in air quality during operations from conventional and 	<ul style="list-style-type: none"> include in design measures to reduce conventional and radiological emissions during




¹⁸³ The real and potential impacts and proposed mitigations within this table were prepared by OPG. The MS-WTFNs were not involved in the identification of these mitigations and while we have provided preliminary feedback within, additional MS-WTFNs-led research is required to identify and include real and potential adverse impacts and effects of the NNW Project and potential mitigations which are aligned with our ways of knowing and being, and through our own analysis, including through our MS-WTFNs-led Impact Assessment. A preliminary identification of real and potential adverse impacts and effects of the NNW Project is outlined in Section 5.5.2 and Section 5.8.




Physical, Biological Environment, and Health, Social, and Economic Context	Factors Defined in Generic TISGs for Nuclear Generating Projects	Project Phase	Real and Potential Impacts	Potential Mitigations
			<p>radiological emissions from stacks, and cooling towers (if required)</p> <ul style="list-style-type: none"> • change in air quality associated with an increase in products of fossil fuel combustion from employee and service vehicles • change in air quality associated with an increase in products of petroleum hydrocarbon (fossil fuel) combustion from periodic testing of emergency diesel generators • change in the contribution to global carbon dioxide emissions associated with use of vehicles using fossil fuel (no contribution from operation of the reactors) 	<p>operations to meet regulatory limits</p> <ul style="list-style-type: none"> • implement no idling policy, and reduced speed limits • environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective • quantify emissions from unavoidable sources such as emergency diesel generators and implement compensation measures
<p>Atmospheric</p> 	Air Quality, GHGs	Decommissioning	<ul style="list-style-type: none"> • change in air quality due to conventional and radiological emissions from dismantling and demolition activities • change in air quality associated with an increase in dust and or products of petroleum hydrocarbon (fossil fuel) combustion from construction activities and from employee and service vehicles 	<ul style="list-style-type: none"> • implement dust management plan to reduce dust emissions at their source • implement no idling policy, and reduced speed limits • environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective



Physical, Biological Environment, and Health, Social, and Economic Context	Factors Defined in Generic TISGs for Nuclear Generating Projects	Project Phase	Real and Potential Impacts	Potential Mitigations
			<ul style="list-style-type: none"> change in the contribution to global GHG emissions associated with use of vehicles using fossil fuel 	
Atmospheric 	Noise and light	Site Preparation and Construction	<ul style="list-style-type: none"> sensory disturbance from increased noise and artificial light levels from construction activities 	<ul style="list-style-type: none"> implement a noise management plan to reduce noise generation at their source during site preparation and construction to comply with applicable noise standards and regulations use of downward facing artificial lighting environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective
Atmospheric 	Noise and light	Operation and Maintenance	<ul style="list-style-type: none"> sensory disturbance from increased noise from the operating facility and lighting from buildings and structures 	<ul style="list-style-type: none"> implement in design measures to reduce noise generation at source to comply with applicable noise standards and regulations implement in design measures to reduce effects from artificial light without compromising security and safety environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective


Physical, Biological Environment, and Health, Social, and Economic Context	Factors Defined in Generic TISGs for Nuclear Generating Projects	Project Phase	Real and Potential Impacts	Potential Mitigations
Atmospheric 	Noise and light	Decommissioning	<ul style="list-style-type: none"> • sensory disturbance from increased noise and artificial light levels from dismantling and demolition activities 	<ul style="list-style-type: none"> • implement a noise management plan to reduce noise generation at their source during site preparation and construction to comply with applicable noise standards and regulations • use of downward facing artificial lighting • environmental monitoring to confirm appropriate mitigation measures are in place and effective
Geological and Hydrogeological 	Groundwater systems	Site Preparation and Construction	<ul style="list-style-type: none"> • change in infiltration to groundwater from removal of vegetation and creation of hard surfaces • change in local groundwater level flows from dewatering activities • change in groundwater quality from changes in stormwater quality due to use of construction equipment and potential accidental spills 	<ul style="list-style-type: none"> • design stormwater management plan in consideration of changes to groundwater flow regime, such as optimizing opportunities to recharge groundwater with surface water run off if required • implement stormwater management and spills management plan to manage erosion, sedimentation, and stormwater quality • environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective



Physical, Biological Environment, and Health, Social, and Economic Context	Factors Defined in Generic TISGs for Nuclear Generating Projects	Project Phase	Real and Potential Impacts	Potential Mitigations
Geological and Hydrogeological 	Groundwater systems	Operation and Maintenance	<ul style="list-style-type: none"> change in groundwater flow patterns due to physical presence of the buildings and structures change in groundwater quality from changes in stormwater quality due to potential accidental spills change in groundwater quality from changes in in soil quality due to airborne deposition of conventional and radiological parameters 	<ul style="list-style-type: none"> design stormwater management and spills management plan in consideration of changes to groundwater flow regime, such as optimizing opportunities to recharge groundwater with surface water run off if required implement stormwater management and spills management plan to manage erosion, sedimentation, and stormwater quality include in-design measures to reduce conventional and radiological emissions during operations to meet regulatory limits environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective
Geological and Hydrogeological	Groundwater systems	Decommissioning	<ul style="list-style-type: none"> change in infiltration to groundwater from removal of buildings and hard surfaces change in groundwater quality resulting from changes in stormwater quality due to 	<ul style="list-style-type: none"> implement stormwater management and spills management plan to manage erosion, sedimentation and stormwater quality



Physical, Biological Environment, and Health, Social, and Economic Context	Factors Defined in Generic TISGs for Nuclear Generating Projects	Project Phase	Real and Potential Impacts	Potential Mitigations
			dismantling and demolition activities, and potential accidental spills	<ul style="list-style-type: none"> environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective
Geological and Hydrogeological 	Soil and Sediment	Site Preparation and Construction	<ul style="list-style-type: none"> change in soil and sediment quality resulting from changes in stormwater quality due to use of construction equipment and potential accidental spills 	<ul style="list-style-type: none"> implement stormwater management and spills management plan environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective
Geological and Hydrogeological 	Soil and Sediment	Operation and Maintenance	<ul style="list-style-type: none"> change to soil and sediment quality from airborne deposition of conventional and radiological parameters 	<ul style="list-style-type: none"> implement stormwater management and spills management plan include in-design measures to reduce conventional and radiological emissions during operations to meet regulatory limits environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective
Geological and Hydrogeological	Soil and Sediment	Decommissioning	<ul style="list-style-type: none"> change in soil and sediment quality resulting from changes in stormwater quality due dismantling 	<ul style="list-style-type: none"> implement stormwater management and spills management plan


Physical, Biological Environment, and Health, Social, and Economic Context	Factors Defined in Generic TISGs for Nuclear Generating Projects	Project Phase	Real and Potential Impacts	Potential Mitigations
			and demolition activities and potential accidental spills	<ul style="list-style-type: none"> environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective
Surface Water 	Local waterbodies/ watercourses	Site Preparation and Construction	<ul style="list-style-type: none"> change in surface water quality due to erosion and sedimentation from stormwater run-off during vegetation clearing change in surface water quality due to contaminants in stormwater from the use of construction equipment and potential spills increase in lake water turbidity from lake infilling and construction of in-water structures (intake and discharge structures, shoreline protection) 	<ul style="list-style-type: none"> stormwater management plan to manage erosion, sedimentation and stormwater quality floating turbidity barriers (or silt curtains) to contain sediment within the immediate in-water construction area environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective
Surface Water 	Local waterbodies/ watercourses	Operation and Maintenance	<ul style="list-style-type: none"> change in lake circulation patterns as result of alterations of shoreline due to lake infilling increase in lake water temperature associated with the operation of the cooling water system change in lake water quality due to contaminants in stormwater and liquid effluent (wastewater) discharged to the lake 	<ul style="list-style-type: none"> design discharge structure to reduce temperature of water discharged incorporate good industry management practices in with respect to stormwater management such as oil and grit separators stormwater management ponds




Physical, Biological Environment, and Health, Social, and Economic Context	Factors Defined in Generic TISGs for Nuclear Generating Projects	Project Phase	Real and Potential Impacts	Potential Mitigations
				<ul style="list-style-type: none"> • treatment of effluent to meet regulatory requirements • environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective
<p>Surface Water</p> 	<p>Local waterbodies/ watercourses</p>	<p>Decommissioning</p>	<ul style="list-style-type: none"> • change in surface water quality due to erosion and sedimentation from stormwater run-off during dismantling and demolition • change in surface water quality due to contaminants in stormwater from the use of dismantling and demolition equipment, and potential spills • increase in lake water turbidity from removal of in-water structures, if required 	<ul style="list-style-type: none"> • stormwater management plan to manage erosion, sedimentation and stormwater quality • floating turbidity barriers (or silt curtains) to contain sediment within the immediate in-water construction area • environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective
<p>Terrestrial</p> 	<p>Natural vegetation</p>	<p>Site Preparation and Construction</p>	<ul style="list-style-type: none"> • loss of vegetation including wetland ecosystems • effects to vegetation due to dust deposition • loss of rare plants • alteration of wetland ecosystems due change in local groundwater level flows from dewatering activities 	<ul style="list-style-type: none"> • replanting of native species and long-term (i.e., multi-generational adaptive management of invasive species.) • salvage and relocation replanting of rare plant species • implement dust management plan



Physical, Biological Environment, and Health, Social, and Economic Context	Factors Defined in Generic TISGs for Nuclear Generating Projects	Project Phase	Real and Potential Impacts	Potential Mitigations
				<ul style="list-style-type: none"> • establishing ecological buffer zones to protect adjacent habitats from indirect impacts. • design stormwater management plan in consideration of changes to groundwater flow regime, such as optimizing opportunities to recharge groundwater with surface water run off if required • environmental monitoring to confirm appropriate mitigation measures are in place and effective
<p>Terrestrial</p> 	<p>Natural vegetation</p>	<p>Operation and Maintenance</p>	<ul style="list-style-type: none"> • alteration of wetland ecosystems from a change in groundwater flow patterns due to physical presence of the buildings and structures • effects on plant growth and health from changes in soil quality due to airborne deposition of conventional and radiological substances 	<ul style="list-style-type: none"> • establishing ecological buffer zones that are acceptable to the MS-WTFNs to protect adjacent habitats from indirect impacts • design stormwater management plan in consideration of changes to groundwater flow regime, such as optimizing opportunities to recharge groundwater with surface water run off if required • include in-design measures to reduce conventional and radiological emissions during operations to meet regulatory limits

Physical, Biological Environment, and Health, Social, and Economic Context	Factors Defined in Generic TISGs for Nuclear Generating Projects	Project Phase	Real and Potential Impacts	Potential Mitigations
				<ul style="list-style-type: none"> environmental monitoring to confirm appropriate mitigation measures are in place and effective
<p>Terrestrial</p> 	<p>Natural vegetation</p>	<p>Decommissioning</p>	<ul style="list-style-type: none"> increased dust on vegetation from dismantling and demolition activities 	<ul style="list-style-type: none"> implement dust management plan environmental monitoring to confirm appropriate mitigation measures are in place and effective
<p>Terrestrial</p> 	<p>Wildlife and wildlife habitat</p>	<p>Site Preparation and Construction</p>	<ul style="list-style-type: none"> disruption to wildlife movement and change in behaviour due to loss of wildlife corridors, construction of fencing, and sensory disturbance from construction activities, human presence, and blasting (increased dust, noise and vibration) loss of existing wildlife habitat including potential for SAR and migratory birds 	<ul style="list-style-type: none"> avoid habitat destruction and only compensate if avoidance is deemed entirely infeasible. compensate according to design agreed on with the MS-WTFNs (e.g., offset ratios, locations, etc.) avoid to the extent practical wildlife corridors, areas of nesting and feeding develop guidance to train staff on wildlife interactions avoid removal of nesting and feeding areas during breeding season implement dust and noise management plan to reduce noise and dust levels at source

Physical, Biological Environment, and Health, Social, and Economic Context	Factors Defined in Generic TISGs for Nuclear Generating Projects	Project Phase	Real and Potential Impacts	Potential Mitigations
				<ul style="list-style-type: none"> • development of blasting plan and appropriate setbacks • compensate for any habitat destruction. • environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective
<p>Terrestrial</p> 	<p>Wildlife and wildlife habitat</p>	<p>Operation and Maintenance</p>	<ul style="list-style-type: none"> • bird strikes against buildings and tall structures • bird entanglement in security fencing • vehicle collisions with wildlife 	<ul style="list-style-type: none"> • use of appropriate building materials, finishes and/or level of lighting on buildings and structures to reduce bird strikes • incorporate in the design of security fencing systems measures to reduce the incidence of bird entanglement and entrapment to the extent practicable. • environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective
<p>Terrestrial</p> 	<p>Wildlife and wildlife habitat</p>	<p>Decommissioning</p>	<ul style="list-style-type: none"> • sensory disturbances to wildlife due to dismantling and demolition activities (increased dust, noise and vibration) and human presence 	<ul style="list-style-type: none"> • implement dust and noise management plan to reduce noise and dust levels at source • develop guidance to train staff on wildlife interactions

Physical, Biological Environment, and Health, Social, and Economic Context	Factors Defined in Generic TISGs for Nuclear Generating Projects	Project Phase	Real and Potential Impacts	Potential Mitigations
				<ul style="list-style-type: none"> • development of blasting plan and appropriate setbacks • environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective
<p>Health</p> 	<p>Public health and safety</p>	<p>All Phases</p>	<ul style="list-style-type: none"> • effects on public health and wellbeing due to actual and perceived the Project related effects • changes to demographics and influx of additional people to the area, which may affect community wellbeing • effects on public safety from increased traffic, and operation • effects on community services (i.e., healthcare services and providers) and infrastructure due to increase in demand associated with increased population 	<ul style="list-style-type: none"> • implement mitigation measures to Project related effects • development of Emergency Preparedness and Response Plan • implement a traffic management plan with the objective of reducing disruption and maintaining safe traffic conditions during all phases • work with local municipalities on availability of community services and infrastructure • environmental monitoring and adaptive management to confirm appropriate mitigation measures are in place and effective
<p>Traffic and Land Use</p>	<p>Traffic and transportation</p>	<p>All Phases</p>	<ul style="list-style-type: none"> • decrease in level of service on roadways and at intersections due it increased vehicle traffic • degradation of road systems and increase in collisions 	<ul style="list-style-type: none"> • implement a traffic management plan with the objective of reducing disruption and maintaining safe traffic conditions during all phases • implement road improvements where required

Physical, Biological Environment, and Health, Social, and Economic Context	Factors Defined in Generic TISGs for Nuclear Generating Projects	Project Phase	Real and Potential Impacts	Potential Mitigations
				
<p>Health</p>  <p>Social and Economic</p> 	<p>Employment and economy</p>	<p>All Phases</p>	<ul style="list-style-type: none"> • increase in direct and indirect employment opportunities • increased demand for goods and services from local businesses • increased municipal revenue from permits and development fees and additional property taxes 	<ul style="list-style-type: none"> • source labour, goods and services from the regional area to the extent practicable
<p>Social and Economic</p>	<p>Population and demographics</p>	<p>All Phases</p>	<ul style="list-style-type: none"> • change to demographics due to increased employment opportunities associate with increased population due to incoming workers and their families 	<ul style="list-style-type: none"> • work with local municipalities on housing availability to inform a housing strategy for the area that encourages workers to move permanently to the area

Physical, Biological Environment, and Health, Social, and Economic Context	Factors Defined in Generic TISGs for Nuclear Generating Projects	Project Phase	Real and Potential Impacts	Potential Mitigations
			<ul style="list-style-type: none"> changes to local housing market, including demand for rental properties and temporary accommodations; including effects on property values in proximity to the Project 	
<p>Traffic and Land Use</p> 	Agricultural land use	All Phases	<ul style="list-style-type: none"> effects to current land use and land access for agricultural purposes potential loss of soil and land available for agricultural development 	<ul style="list-style-type: none"> salvage topsoil used for agricultural purposes

6. Future Impact Assessment Activities

6.1 Steps in the IA Process

The Agency defines five phases in their IA process including the planning, IS, IA, decision-making, and post decision phases. Specific information on the phases can be found through the Agency's webpage¹⁸⁴. Each phase involves various levels of engagement, studies, data collection, and assessments undertaken by the proponent and by the Agency. During the planning phase following release of the IPD, the Agency will develop a Summary of Issues through engagement. The Agency's consultation will include Rights-holding First Nations. Additionally, there will be engagement with interested Indigenous communities, the public and federal/provincial authorities. The Summary of Issues will be shared with the proponent for response. Responses to the issues identified will be published on the Project registry website so all parties are aware of how their concerns are being addressed. During the planning phase, the Agency will also determine whether an IA is required for the NNW Project.

The phasing is based on the needs and functions of the Canadian government and does not easily align with the time requirements of the MS-WTFNs to fulfil the required level of consultation needed to properly assess the NNW Project and its real and potential adverse impacts and effects on our Rights and our communities.

Once the Agency determines that an IA is required for the NNW Project, engagement between OPG and Rights-holding First Nations and interested Indigenous communities, public and other groups and government agencies will continue through all phases, as described in Section 1.4 and Section 1.5. For OPG to assess the real and potential impacts of the NNW Project, studies will be developed to characterize existing conditions (Section 6.2). During the Impact Statement phase, aligned with the project-specific Tailored Impact Statement Guidelines (TISG), modeling or other effect assessment methods would be used to characterize real and potential impact to environmental, health, social, and economic conditions, including potential cumulative effects (Section 6.3).

6.2 Proposed Studies to Characterize Existing Conditions

Characterization of the existing environmental conditions at and around the NNW site would represent an important part of the IA process. In addition, various studies, including collecting existing data or studies to collect new data to characterize the existing conditions would be

¹⁸⁴ <https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/impact-assessment-process-overview.html>

planned. Studies may require data collection during specific seasons or multiple seasons. Proposed types of studies are outlined in Table 33.

The list of studies outlined in Table 33 are OPG’s preliminary list of studies. This list does not include MS-WTFNs-led studies, which will be required. Appropriate studies will be identified following further scoping discussions among MS-WTFNs and through community engagement, to ensure that our Rights, Relatives and values are appropriately assessed, including through our MS-WTFNs-led Impact Assessment.

Table 33: Proposed Studies to Characterize Existing Conditions

IA Components	Proposed Studies
Indigenous Peoples	Community-specific data collection programs developed from engagement with Rights-holding First Nations and interested Indigenous communities
Atmospheric, Acoustic, and Light Environment	Air quality
	Sound levels and noise monitoring
	Illuminance and skyglow monitoring
Meteorological	Wind speed and direction
	Temperature
	Barometric pressure
	Precipitation
	Solar radiation
Radiation and Radioactivity	Radiological conditions in air, soil, groundwater, surface water, aquatic species and vegetation
Geological and Hydrogeological Environment	Borehole drilling and monitoring well installations, including sampling, logging and handling to characterize soil and bedrock
	Seasonal water level observation and measurement
	Soil and water quality sampling
	Hydraulic conductivity testing
Aquatic Environment	Sediment quality
	Fish habitat characterization
	Fish community characterization and population assessment
	Fish health including fish tissues analysis
	Benthic invertebrate community characterization
	Zooplankton and Phytoplankton community characterization

IA Components	Proposed Studies
	Regulated species survey (SARA and ESA)
Surface Water and Lake Conditions	Stream physiography, inland watercourse and waterbody surface water quality and flow characterization
	Nearshore lake environment characterization, including: localized lake physiography (bathymetry), hydrodynamics (currents), temperatures, and chemistry (key water quality) parameters
Cultural Heritage	Built heritage and cultural landscapes studies
	Archaeological potential assessment (terrestrial and marine)
	Community-specific/community-led data collection programs guided by Rights-holding First Nations and interested Indigenous communities
Terrestrial Environment	Vegetation surveys and ecological land classification
	Butterfly and Odonata (i.e., dragonflies and damselflies) surveys
	Turtle and amphibian surveys
	Bird and bat surveys
	Winter wildlife use survey
	Regulated species surveys (SARA and ESA)
Socio-Economic Environment	Socio-economic features mapping and field reconnaissance
	Statistics Canada data collection program
	Public Attitude Research
	Key stakeholder interviews
	Tourist and day user survey
	Site neighbor survey
	Nuclear service industry survey
Sustainability	Views and understanding of sustainability
Traffic and Transportation	Historic traffic data analysis (external agencies)
	Traffic data collection
	Rail use and future capacity analysis
	Marine navigation analysis
Land Use	Visibility modeling
	Land use planning analysis
Ecological and Human Health	Country foods monitoring program
	Terrestrial and Aquatic Vegetation Tissue Sampling

6.3 Assessment of Project and Cumulative Effects

The effect of the NNW Project on each component would be assessed based on the existing conditions data. Assessments conducted may rely on modeling, climate change projections, risk projections, and other methods. The results will consider cumulative effects, and any inter-discipline interactions.

OPG acknowledges the need to assess both project-specific real and potential impacts and cumulative effects of the NNW Project on elements of the environment as well as on Aboriginal and Treaty rights based on historic and reasonably foreseeable future activities near the NNW site through both Western and Indigenous frameworks of understanding, identification, evaluation and analysis. Project-specific effects include potential adverse impacts during construction, operation, and decommissioning phases. Mitigation measures will be proposed through both western science and Indigenous frameworks to minimize any potential effects.

OPG will work with the MS-WTFNs to consider cumulative effects of the combined impacts of the NNW Project with other past, present and reasonably foreseeable projects. Both adverse and beneficial cumulative effects will be examined, with an emphasis on long-term and synergistic interactions.

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Annex A. IPD/IMTLR Concordance Tables

Table A-1: IPD-IMTLR Concordance Table

Information Requirements			OPG NNW IA Initial Project Description		
IMTLR (Schedule 1) Section	Title	Description	Major Volumes Chapter No.	Section	Annex
A	General Information	1. The project name, type or sector, proposed location.	1	1.1	–
		2. The proponent's name and contact information and the name and contact information of their primary representative for the purpose of the description of the project.	1	1.2	–
		3. A summary of any engagement undertaken with any jurisdiction or other party, including a summary of the key issues raised and the results of the engagement, and a brief description of any plan for future engagement.	1	1.5	–
		4. A list of the Indigenous groups that may be affected by the carrying out of the project, a summary of any engagement undertaken with the Indigenous peoples of Canada, including a summary of key issues raised and the results of the engagement, and a brief description of any plan for future engagement.	1	1.3, 1.4	–
		5. Any study or plan, relevant to the project, that is being or has been conducted in respect of the region where the project is to be carried out, including a regional assessment that is being or has been carried out under section 92 or 93 of the Act or by any jurisdiction, including by or on behalf of an Indigenous governing body, if the study or plan is available to the public.	1	1.6	–

Information Requirements			OPG NNW IA Initial Project Description		
IMTLR (Schedule 1) Section	Title	Description	Major Volumes Chapter No.	Section	Annex
		6. Any strategic assessment, relevant to the project, that is being or has been carried out under section 95 of the act.	1	1.7	–
B	Project Information	7. A statement of the purpose of and need for the project, including any potential benefits	2	2.2	–
		8. The provisions in the schedule to the Physical Activities Regulations describing the project, in whole or in part.	2	2.1	–
		9. A list of all activities, infrastructure, permanent or temporary structures and physical works to be included in and associated with the construction, operation and decommissioning of the project.	2	2.6	–
		10. An estimate of the maximum production capacity of the project and a description of the production processes to be used.	2	2.4	–
		11. The anticipated schedule for the project's construction, operation, decommissioning and abandonment, including any expansions of the project.	2	2.5	–
		12. A list of: (a) potential alternative means of carrying out the project that the proponent is considering and that are technically and economically feasible, including through the use of best available technologies; and	2	2.2.1	–
		(b) potential alternatives to the project that the proponent is considering and that are technically and economically feasible and directly related to the project.	2	2.3	–

Information Requirements			OPG NNW IA Initial Project Description		
IMTLR (Schedule 1) Section	Title	Description	Major Volumes Chapter No.	Section	Annex
C	Location Information	13. A description of the project's proposed location, including: (a) its proposed geographic coordinates, including, for linear development projects, the proposed locations of major ancillary facilities that are integral to the project and a description of the spatial boundaries of the proposed study corridor; (b) site maps produced at an appropriate scale in order to determine the project's proposed general location and the spatial relationship of the project components; (c) the legal description of land to be used for the project, including, if the land has already been acquired, the title, deed or document and any authorization relating to a water lot; (d) the project's proximity to any permanent, seasonal or temporary residences and to the nearest affected communities; (e) the project's proximity to land used for traditional purposes by Indigenous peoples of Canada, land in a reserve as defined in subsection 2(1) of the Indian Act, First Nation land as defined in subsection 2(1) of the First Nations Land Management Act, land that is subject to a comprehensive land claim agreement or a self-government agreement and any other land set aside for the use and benefit of Indigenous peoples of Canada; and (f) the project's proximity to any federal lands.	3	3.1, 3.2, 3.3	B
		14. A brief description of the physical and biological environment of the project's location, based on information that is available to the public	3	3.4	–

Information Requirements			OPG NNW IA Initial Project Description		
IMTLR (Schedule 1) Section	Title	Description	Major Volumes Chapter No.	Section	Annex
		15. A brief description of the health, social and economic context in the region where the project is located, based on information that is available to the public or derived from any engagement undertaken.	3	3.5	–
D	Federal, Provincial, Territorial, Indigenous, and Municipal Involvement	16. A description of any financial support that federal authorities are, or may be, providing to the project.	4	4.1	–
		17. A list of any federal lands that may be used for the purpose of carrying out the project.	4	4.2	–
		18. A list of any jurisdictions that have powers, duties or functions in relation to an assessment of the project's environmental effects.	4	4.3	C
E	Real and Potential Impacts of the Project	19. A list of any non-negligible adverse changes — to the following components of the environment that are within the legislative authority of Parliament — that may be caused by the carrying out of the project: (a) fish and fish habitat, as defined in subsection 2(1) of the Fisheries Act; (b) aquatic species, as defined in subsection 2(1) of the Species at Risk Act; and (c) migratory birds, as defined in subsection 2(1) of the Migratory Birds Convention Act, 1994.	5	5.1, 5.2, 5.11	–
		20. A list of any non-negligible adverse changes to the environment — that would occur on federal lands — that may be caused by the carrying out of the project.	5	5.3	–

Information Requirements			OPG NNW IA Initial Project Description		
IMTLR (Schedule 1) Section	Title	Description	Major Volumes Chapter No.	Section	Annex
		20.1. A list of any non-negligible adverse changes to the marine environment — that are caused by pollution and that would occur outside Canada — that may be caused by the carrying out of the project.	5	5.4	—
		20.2. A list of any non-negligible adverse changes to interprovincial waters or to boundary waters or international waters, as those terms are defined in subsection 2(1) of the Canada Water Act, — that are caused by pollution — that may be caused by the carrying out of the project.	5	5.4	—
		21. With respect to the Indigenous peoples of Canada, a brief description of the Real and Potential impacts — that, as a result of the carrying out of the project, may occur in Canada and result from any change to the environment — on physical and cultural heritage, the current use of lands and resources for traditional purposes and any structure, site or thing that is of historical, archaeological, paleontological or architectural significance, based on information that is available to the public or derived from any engagement undertaken with Indigenous peoples of Canada.	5	5.5, 5.6, 5.7, 5.11	—
		22. A brief description of any change that, as a result of the carrying out of the project, may occur in Canada to the health, social or economic conditions of Indigenous peoples of Canada, based on information that is available to the public or derived from any engagement undertaken with Indigenous peoples of Canada.	5	5.8	—

Information Requirements			OPG NNW IA Initial Project Description		
IMTLR (Schedule 1) Section	Title	Description	Major Volumes Chapter No.	Section	Annex
		22.1. If the project is to be carried out on federal lands or is a federal work or undertaking, as defined in subsection 3(1) of the Canadian Environmental Protection Act, 1999, a list of any non-negligible adverse effects that may be caused by the carrying out of the project.	5	5.8, 5.11	
		23. An estimate of any greenhouse gas emissions associated with the project.	5	5.9	–
		24. A list of the types of waste and emissions that are likely to be generated — in the air, in or on water and in or on land — during any phase of the project.	5	5.10	–
F	Summary	25. A plain-language summary of the information that is required under items 1 to 24 in English and in French.	Provided Separately		

Annex B. Land Ownership Descriptions

Table B-1 describes each lot owned by OPG. The ownership column is linked to Figure B-1 following the table to understand the ownership layout further.

Table B-1: OPG Ownership Documentation and Explanations

Ownership	Purchase Documents	Lot and Con
51063-0001	Purchase Deed: P379316 (#LT1605) App to Change Name: P901534 (#LT25738)	PCL Water Lot-1 SEC Location HY168, being part of the bed of Lake Ontario lying in front of Lots 26 and 27, Broken Front Concession and the road allowance between Lots 26 and 27, Broken Front Concession designated as Part 1 on Plan 9R-1033, Township of Hope. See Plan 9R-1033 for P379316 in the Plans folder.
51063-0087	Purchase Deeds: P297934 (#PH29479), P49328 (#HPT12864) on HONI Transfer Order – abandoned railway line P300247 (#PH29847), P278012 (#PH20713), P288935 (#PH25271), P320151 (#PH40001), P278015 (#PH20712), P278014 (#PH20761), P285582 (#PH22868), P285595 (#PH22488), P278013 (#PH20645), P345426 (#PH49359), P345427 (#PH49360) Plan 32: P288934 (#PH24698), P281352 (#PH21464), P278016 (#PH20810), P280372 (#PH21431), P283292 (Exp Plan #PLH171), P284978 (#PH23182), P282067 (#PH22256) on HONI transfer order, P280374 (#PH21439), P288936 (#PH24957), P284977 (#PH22719), P280632 (#PH21570),	Lots 1 to 36, Lots A to L and P to T, East Drive and Willow Drive, Plan 32, Blocks M and N, Plan 32 except Part 9 on Plan 9R-330, Part Lots 25 to 33, Con 1, part Lots 25 to 33, Con Broken Front, part of the road allowance between Con Broken Front and Con 1, part of the road allowance between Lots 26 and 27, between Lots 28 and 29, between Lots 30 and 31, between Lots 32 and 33, all in Con 1, and between Lots 26 and 27, between Lots 28 and 29, between Lots 30 and 31 and between Lots 32 and 33, all in Con Broken Front, all in the Township of Hope, designated as Part 1 on Plan 9R-816. See the sketches for the various P docs for this PIN and Plan 9R-816 in the Plans folder

Ownership	Purchase Documents	Lot and Con
	<p>P280373 (#PH21086), P280631 (#PH21569), P281351 (#PH21827), P288937 (#PH22075), P279631 (#PH20938), P323733 (#PH41518), P286046 (#PH23093), P278017 (#PH20887), P285596 (#PH24912), P282066 (#PH21568), P279630 (#PH21108)</p> <p>Sale Deed: P345425 (#PH49361)</p> <p>App to Change Name: P901533 (#PH365749)</p>	
51063-0099	<p>Purchase Deeds: P300244 (#PH29848), P356145 (#PH57029), P359360 (#PH58059), P474172 (#PH106283), P300245 (#PH29846), P300247 (#PH29847), P297420 (#PH29009), P297934 (#PH29479), P356306 (#PH56697), P362983 (#PH59260), P483398 (#PH109893), P345426 (#PH49359), P49328 (#HPT12864) on HONI Transfer Order – abandoned railway line</p> <p>Sale Deed: P345425 (#PH49361)</p> <p>App to Change Name: P901533 (#NC365749)</p>	<p>Part Lots 25 to 30, Concession 1, part of the road allowance between Lots 28 and 29, Con 1, and part of the road allowance between Lots 26 and 27, Con 1 designated as Part 2 on Plan 9R-815, Parts 2 and 3 on Plan 9R-999, Parts 1 and 2 on Plan 9R-1030, Parts 1 and 2 on Plan 9R-749, Parts 1 to 5 on Plan 9R-994 and Parts 1 and 2 on Plan 9R-2668, Township of Hope. See Plans 9R-815, 9R-999, 9R-1030, 9R-1030, 9R-749, 9R-994 and 9R-2668 in the Plans folder</p>
51063-0101	<p>Purchase Deeds: P285582 (#PH22868), P359399 (#PH56698), P357338 (#PH57703),</p>	<p>Part Lots 31 and 32, Con 1 designated as Part 1 on Plan 9R-815, Parts 1 to 5 on Plan 9R-995 and Parts 1 and 2 on Plan 9R-1110, Township of Hope.</p>

Ownership	Purchase Documents	Lot and Con
	P367873 (#PH61478) App to Change Name: P901533 (#NC365749)	See the sketch for P285582 and Plan 9R-815, Plan 9R-995 for P359399 and P357338 and Plan 9R-1110 for P367873 in the Plans folder
51063-0121	Purchase Deed: P300245 (#PH29846), P345426 (#PH49359) App to Change Name: P901533 (#NC365749)	Part Lot 26, Con 1 and part of the road allowance between Lots 26 and 27, Con 1, now designated as Parts 4 and 6 on Plan 9R-815, Township of Hope. See the sketch for P300245 and Plan 9R-815 in the Plans folder

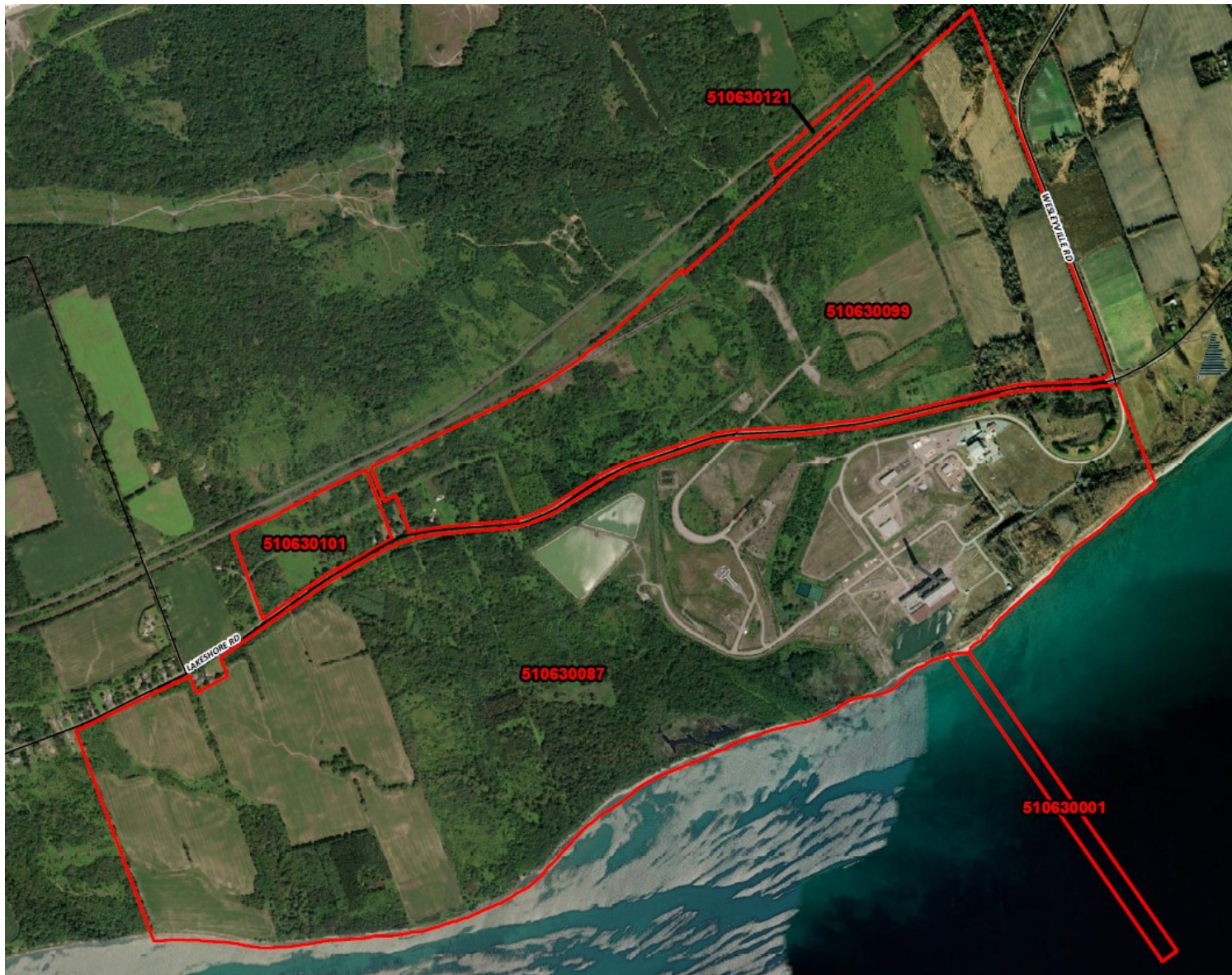


Figure B-1: Project Site – Ownership Land Packages

Annex C. Permits, Licences, Approvals and Authorization

A preliminary list of the licences, permits, approvals, and authorizations to perform an assessment of a projects environmental effects has been provided in Table C-1. The list focuses on the key environmental and land use licences, permits, approvals, and authorizations. The list is not exhaustive and will be refined with input provided by applicable authorities and MS-WTFNs.

Table C-1: List of the Permits, Licences, Approvals, and Authorizations Associated with the Legislative and Policy Contexts

Authorities	Legislative / Policy Context and Permits, Licences, Approvals or Authorizations Required
Federal	
Impact Assessment Agency of Canada (IAAC)	Administers the Impact Assessment Act, 2019 Impact Assessment Act (IAA) <ul style="list-style-type: none"> • Projects that exceed thresholds defined in the Physical Activities Regulations under the IAA are required to undergo an impact assessment process.
Canadian Nuclear Safety Commission (CNSC)	Administers NSCA and the Class I Nuclear Facilities Regulations. Nuclear Safety and Control Act (NSCA) <ul style="list-style-type: none"> • Regulatory requirements under the NSCA and the Class I Nuclear Facilities Regulations may be required for projects including nuclear facilities. • These regulations require separate licences for each of the five phases in the lifecycle of a nuclear power plant including: <ul style="list-style-type: none"> ○ (1) licence to prepare a site ○ (2) licence to construct ○ (3) licence to operate ○ (4) licence to decommission ○ (5) licence to abandon. • Additional licensing requirements may be required such as for the import or export activities; for the packaging and transportation of nuclear substances; or to ensure/demonstrate adequate control of radiation and environmental protection programs: <ul style="list-style-type: none"> ○ Licence to Import/Export Nuclear Items Under Nuclear Non-Proliferation Export and Import Control Regulations under the NSCA.

Authorities	Legislative / Policy Context and Permits, Licences, Approvals or Authorizations Required
<p>Environment and Climate Change Canada (ECCC)</p>	<p>ECCC administers the protection provisions of terrestrial species under the SARA and migratory birds under the MBCA. Additionally, ECCC and Health Canada administer a number of regulations jointly under the (Canadian Environmental Protection Act, 1999). The ECCC also represents and ensures the Canadian commitments to the Great Lakes Water Quality Agreement (GLWQA) are met.</p> <p>Canadian Environmental Protection Act (CEPA)</p> <ul style="list-style-type: none"> • Potential for requirements related to pollution prevention and the protection of the environment and human health in order to contribute to sustainable development. <p>Migratory Birds Convention Act (MBCA)</p> <ul style="list-style-type: none"> • Authorization under the MBCA may be required where there is potential for impacts to migratory birds protected under the MBCA. This includes authorization to undertake prohibited activities (including scaring, capturing or killing migratory birds or taking or destroying their nests or eggs) may be authorized through a permit issued by ECCC. <p>Species at Risk Act (SARA)</p> <ul style="list-style-type: none"> • Authorization under SARA may be required where there is potential for impacts to SAR listed on Schedule 1 of the SARA, as extirpated, endangered, or threatened and which contravene the Act’s general or critical habitat prohibitions. <p>Great Lakes Water Quality Agreement (GLWQA)</p> <ul style="list-style-type: none"> • Enhances transparency, accountability, and cooperation to ensure the sustainability of the Great Lakes.
<p>Fisheries and Oceans Canada (DFO)</p>	<p>Administers the Fisheries Act and the protection provisions under the SARA</p> <p>Fisheries Act</p>

Authorities	Legislative / Policy Context and Permits, Licences, Approvals or Authorizations Required
	<ul style="list-style-type: none"> • The NNW Project will require an authorization by DFO under subsection 35(2) of the Fisheries Act since it may result in harmful alteration, disruption or destruction of fish habitat (HADD). This may include impacts related to Project activities/infrastructure such as water intakes/outfalls, culverts, dredging/excavation, dewatering/pumping, shoreline modifications, offshore drilling for structures (e.g. boreholes, condenser cooling water intake/outfall), and operation of intakes/outfalls and condenser cooling water. • The NNW Project must also comply with other related sections of the Fisheries Act including: <ul style="list-style-type: none"> ○ Subsection 30, which requires water intakes be provided with guards and screens; ○ Subsection 32, which prohibits the destruction of fish except as authorized by the Minister; and ○ Subsection 36(3), which prohibits the deposit of deleterious substances in water frequented by fish. <p>Species at Risk Act (SARA)</p> <ul style="list-style-type: none"> • Authorization under Section 73 of SARA may be required where there is potential for impacts to aquatic SAR or their critical habitat which is protected under SARA.
Transport Canada	<p>Administers the Aeronautics Act; the Canadian Navigable Waters Act (CNWA); the Canada Transportation Act; the Canada Shipping Act; and the Transportation of Dangerous Goods Act.</p> <p>Aeronautics Act</p> <ul style="list-style-type: none"> • Authorization from TC may be required under the Airport Zoning Regulation (Land Use in the Vicinity of Aerodromes – TP 1247); and the Canadian Aviation Regulations (Part VI, Division III - Marking and Lighting of Obstacles to Air Navigation Sections 601.23 to 601.29 of the Canadian Aviation Regulations); Standard 621 (Obstruction Marking and Lighting). • An Application for Obstacle Notice and Aeronautical Assessment Form is required for plans to install a new structure that will be an obstacle to air navigation. Transport Canada also recommends notifying Navigation Canada assess whether structure impacts flight procedures, as this can occur even if it has been determined to not be an obstacle by Transport Canada. <p>Canadian Navigable Waters Act (CNWA)</p> <ul style="list-style-type: none"> • Authorization from Transport Canada may be required under paragraph 5(1)(a) of the CNWA, including applications under the Navigation Protection Program may be required for projects defined as “major works”,

Authorities	Legislative / Policy Context and Permits, Licences, Approvals or Authorizations Required
	<p>where activities include construct, place, alter, remove or decommission a work in, on, over, under, through or across any navigable water in Canada.</p> <p>Canada Shipping Act</p> <ul style="list-style-type: none"> • Approvals under the Canada Shipping Act may be required where Project activities have the potential to impact areas defined for shipping activities. This includes potential amendments to coordinates of prohibitive zones defined for shipping purposes in order to provide protection for the new intake and discharge structures. <p>Canada Transportation Act</p> <ul style="list-style-type: none"> • Authorization from Transport Canada may be required under subsection 98(2) of the Canada Transportation Act dependent on the potential for Project activities involve the construction of a railway line (or spur) into the Project site. <p>Transportation of Dangerous Goods Act</p> <ul style="list-style-type: none"> • Authorization from Transport Canada may be required under the Packaging and Transport of Nuclear Substances Regulations for Class 7 (Radioactive Materials). • Potential requirement related to Approval for Emergency Response Assistance Plan (ERAP) for those involved in the transportation of certain dangerous goods above the quantity specified in the Transportation of Dangerous Goods Regulation.
Health Canada	<p>Health Canada and the ECCC administer a number of regulations jointly under the CEPA.</p> <p>Canadian Environmental Protection Act (CEPA)</p> <ul style="list-style-type: none"> • Potential for requirements related to pollution prevention and the protection of the environment and human health in order to contribute to sustainable development. • Although HC does not exercise powers, or perform specific duties or functions related to the Project to enable it to proceed, as a federal authority it may provide advice on Human Health Risk Assessments (HHRAs); air quality; country foods; drinking and recreational water quality; radiological impacts; noise; and Electric and Magnetic Fields (EMF).

Authorities	Legislative / Policy Context and Permits, Licences, Approvals or Authorizations Required
	<p>Emergency Management Act</p> <ul style="list-style-type: none"> • HC plays a key role in protecting Canadians from the risk of radiation exposure and lead federal department responsible for the Federal Nuclear Emergency Plan. There is potential for amendments to Federal Nuclear Emergency Plan (FNEP) under Emergency Management Act.
<p>Natural Resources Canada</p>	<p>Administers the Explosives Act; Nuclear Energy Act; and the Nuclear Fuel Waste Act; the Nuclear Liability and Compensation Act; and the Nuclear Safety and Control Act.</p> <p>Explosives Act</p> <ul style="list-style-type: none"> • Potential requirements related to safe handling, use, and management of explosives required for the purpose of Project-related activities. This includes potential requirements for a User Magazine Licence for the storage of explosives for blasting purposes. <p>Nuclear Energy Act</p> <ul style="list-style-type: none"> • Relates to the development and utilization of nuclear energy. <p>Nuclear Fuel Waste Act</p> <ul style="list-style-type: none"> • Provides a framework for the Governor in Council – from whom the CNSC must seek approval when creating or amending regulations – to make a decision on the management of nuclear fuel waste based on a comprehensive, integrated and economically-sound approach for Canada. <p>Nuclear Liability and Compensation Act</p> <ul style="list-style-type: none"> • Provides requirements for civil liability for nuclear damage, special measures for compensation, and general provisions following a nuclear incident resulting in injury or damage.

Authorities	Legislative / Policy Context and Permits, Licences, Approvals or Authorizations Required
Provincial	
<p>Ministry of Environment, Conservation and Parks (MECP)</p>	<p>Administers the Environmental Protection Act, the Ontario Water Resources Act, and the Endangered Species Act.</p> <p>Endangered Species Act</p> <ul style="list-style-type: none"> • Authorizations may be required if there is potential to kill, harm, or harass, and/or damage or destroy habitat of species listed under Ontario Regulation 230/08 (Species at Risk in Ontario List) which are classified as extirpated, endangered, or threatened in Ontario. <p>Environmental Protection Act</p> <ul style="list-style-type: none"> • Potential for Project activities to meet regulatory requirements for: <ul style="list-style-type: none"> ○ Disposal of contaminated soils under the Ontario Regulation 347 (General – Waste Management); ○ Excess soil management under the Ontario Regulation 406/19 (On-Site and Excess Soil Management) and MECP guidance document “Rules for Soil Management and Excess Soil Quality Standards”. ○ Requirements for managing potential spills/pollutants under Part X, section 92 of the Act. • Environmental Compliance Approval(s) for air, noise, stormwater and industrial sewage. <p>Ontario Water Resources Act</p> <ul style="list-style-type: none"> • Water takings that exceed 50,000 litres per day must be carried out in compliance with the conditions for registration on the Environmental Activity and Sector Registry, and a permit to take water issued under the Ontario Water Resources Act should be obtained, where applicable.
<p>Ministry of Natural Resources (MNR)</p>	<p>Administers the Fish and Wildlife Conservation Act; the Invasive Species Act; the Public Lands Act; the Lakes and Rivers Improvements Act; and the Aggregate Resources Act.</p> <p>Aggregate Resources Act</p> <ul style="list-style-type: none"> • Dependent on Project activities, an aggregate resource permit may be required if a source of aggregate is required for construction and operation activities. <p>Fish and Wildlife Conservation Act</p>

Authorities	Legislative / Policy Context and Permits, Licences, Approvals or Authorizations Required
	<ul style="list-style-type: none"> • A Licence to Collect Fish for Scientific Purposes may be required for fish collection and transfer dependent on Project activities. <p>Invasive Species Act</p> <ul style="list-style-type: none"> • Potential prohibitions, restrictions, and preventive measures related to the prevention and control of invasive species in Ontario are outlined. <p>Lakes and Rivers Improvements Act</p> <ul style="list-style-type: none"> • Potential approvals may be required for Project activities ((i.e., dams, water crossings, channelization, enclosures, buried pipelines and cables, and/or municipal and other drains) dependent on potential impacts to aquatic ecosystems (e.g. biological components, hydrologic / sediment / thermal regimes), wildlife habitat, and natural amenities (e.g. shorelines, trees, beaches, wetlands). <p>Public Lands Act</p> <ul style="list-style-type: none"> • A Crown Land Work Permit may be required for activities taking place on public lands and shorelands including intake/diffuser construction and shoreline modifications. • Agreements to buy or rent Crown land for permanently occupying public lands or shorelands may be required (i.e., Crown patents [sale]; lease; easement; license [of occupation]; or land use permits). <p>Oil, Gas and Salt Resources Act</p> <ul style="list-style-type: none"> • Well licenses may be required for groundwater monitoring wells that are beyond a certain depth. • Wells that typically require approval include wells developed or used for activities like oil and gas production, production of formation water (brines), hydrocarbon storage, as well as the geologic evaluation or testing of rocks of Cambrian or more recent age.
Minister of Solicitor General	Administers the Emergency Management and Civil Protection Act Emergency Management and Civil Protection Act

Authorities	Legislative / Policy Context and Permits, Licences, Approvals or Authorizations Required
	<ul style="list-style-type: none"> There is potential for updates to the framework for the response to a nuclear or radiological emergency in Ontario. This includes updates to the Provincial Nuclear Emergency Response Plan under the Emergency Management and Civil Protection Act.
<p>Ministry of Citizenship and Multiculturalism (MCM)</p>	<p>Administers the Ontario Heritage Act except in respect of clauses 70(1)(a) and (e) as they relate to museums.</p> <p>Ontario Heritage Act</p> <ul style="list-style-type: none"> Appropriate screenings, permits, studies will be required to undertake NNW Project activities that have the potential to impact or disturb cultural resources (i.e., conservation of property of cultural heritage value or interest; heritage conservation districts; and conservation of resources of archaeological value).
<p>Ministry of Transportation (MTO)</p>	<p>Administers the Public Transportation and Highway Improvement Act</p> <p>Public Transportation and Highway Improvement Act</p> <ul style="list-style-type: none"> Potential permits (Highway Corridor Management Permit) may be required related to Project activities impacting highway corridor management requiring signage; utilities; building and land use changes; entrance / access requirements; and / or encroachments near a provincial highway or within MTO Controlled Areas.
Municipal	
<p>Northumberland County</p>	<p>Northumberland County is an upper-tier municipality situated on the north shore of Lake Ontario and consists of seven municipalities including the Town of Cobourg, Municipality of Port Hope, Municipality of Trent Hills, Municipality of Brighton, Township of Hamilton, Township of Alnwick/Haldimand, and Township of Cramahe. Potential applicable permits / by-laws include:</p> <ul style="list-style-type: none"> Roads Permits (i.e., entrances; setbacks; open-cut or boring; special events; oversize/overweight loads; permissions to enter) Site Control Plans Zoning by-law amendments / approvals under the Planning Act Forest Conservation Permits
<p>Municipality of Port Hope</p>	<p>Port Hope is a lower-tier municipality located approximately 110 km east of Toronto, Ontario or 160 km west of Kingston, Ontario. It is located at the mouth of the Ganaraska River on the north shore of Lake Ontario, in the west end of Northumberland County. The Project is located at within the Town of Wesleyville, which is located in Port Hope. Potential applicable permits / by-laws include:</p> <ul style="list-style-type: none"> Noise By-Law 30-2002

Authorities	Legislative / Policy Context and Permits, Licences, Approvals or Authorizations Required
	<ul style="list-style-type: none"> ○ Sign By-Law 17-2005 ○ Designate Site Control Plan Area By-Law 26-2008 ○ Traffic and Parking By-law 39-2008 ○ Tree Protection By-Law 75-2021 ○ Zoning by-law amendments / approvals under the <i>Planning Act</i>
Other (Local Authorities)	
<p>Ganaraska Region Conservation Authority (GRCA)</p>	<p>The GRCA regulates rivers and stream valleys encompassing Wilmot Creek in Clarington to east of Cobourg, from the south shore of Rice Lake down to Lake Ontario including seven municipalities in whole or in part: Township of Cavan Monaghan, Town of Cobourg, Township of Alnwick-Haldimand, Township of Hamilton, Municipality of Port Hope, City of Kawartha Lakes, Municipality of Clarington.</p> <p>Conservation Authorities Act</p> <ul style="list-style-type: none"> ● Potential permits may be required for development / Project activities (i.e., near watercourses, wetlands, hazard lands / floodplain areas) that take place within lands regulated by the GRCA.
<p>Utility Crossings / Encroachment Permits)</p>	<ul style="list-style-type: none"> ● For proposed infrastructure installations that encroach on or cross rail corridors. Includes encroachment activities during construction. ● Utility crossing / encroachment permits may be required for Project activities / infrastructure that encroaches on or crosses rail corridors (i.e., CP Rail; CN Rail; Hydro One).
International	
<p>International Joint Commission (IJC)</p>	<p>The IJC is a joint commission between Canada and the United States that work to manage lake and river systems along the border of both countries. The IJC is guided by the Boundary Waters Treaty, signed by Canada and the United States in 1909. The Treaty provides general principles, rather than detailed prescriptions, for preventing and resolving disputes over waters shared between the two countries and for settling other transboundary issues. The specific application of these principles is decided on a case-by-case basis.</p> <p>Boundary Waters Treaty</p> <ul style="list-style-type: none"> ● Under the Treaty the IJC may issue decisions known as orders of approval for projects that may affect the natural water levels and flows of boundary waters thereby, approving projects that affect water levels and flows across the boundary.

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	<ul style="list-style-type: none"> The IJC does not automatically require an Order of Approval for new nuclear facilities constructed near the Great Lakes or other boundary waters unless the facility directly impacts water levels, flows, or uses of boundary waters under the Boundary Waters Treaty of 1909. The project will require an Order of Approval from the IJC if it has the potential to affect boundary waters significantly. <p>Great Lakes Water Quality Agreement (GLWQA)</p> <ul style="list-style-type: none"> The IJC reports on air pollution issues that might impact the Great Lakes under the Great Lakes Water Quality Agreement. <p>The Canada-U.S. Air Quality Agreement</p> <ul style="list-style-type: none"> The Canada-United States Air Quality Agreement requires the IJC to collect and synthesize public comments on the air quality progress reports published by the governments every two years.
<p>United States (US) Environmental Protection Agency</p>	<p>The U.S. Environmental Protection Agency (EPA) is responsible for the protection of human health and the environment. The Environmental Protection Agency provides technical assistance to support recovery planning of public health and infrastructure, such as wastewater treatment plants.</p> <p>Great Lakes Water Quality Agreement (GLWQA)</p> <ul style="list-style-type: none"> Enhances transparency, accountability, and cooperation to ensure the sustainability of the Great Lakes. <p>The Canada-U.S. Air Quality Agreement</p> <ul style="list-style-type: none"> Promotes cooperation on air quality standards, scientific research, and progress reporting to protect human health and the environment.
International - Nuclear	
<p>International Atomic Energy Agency (IAEA)</p>	<p>The IAEA is the world's central intergovernmental forum for scientific and technical cooperation in the nuclear field. It works for the safe, secure, and peaceful uses of nuclear science and technology, contributing to international peace and security and the United Nations' Sustainable Development Goals.</p>

Authorities	Legislative / Policy Context and Permits, Licences, Approvals or Authorizations Required
	<p>Comprehensive Safeguards Agreement (CSA)</p> <ul style="list-style-type: none"> • Set of safeguards applied by the IAEA to ensure that nuclear material is not diverted to weapons production. Canada's CSA is part of its obligations under the Treaty on the Non-Proliferation of Nuclear Weapons. <p>NPT – IAEA and Canada's bilateral Nuclear Cooperation Agreements</p> <ul style="list-style-type: none"> • NPT aims to prevent the spread of nuclear weapons. Canada's Nuclear Cooperation Agreements are bilateral agreements ensuring that nuclear material, equipment, and technology are used exclusively for peaceful purposes. • Agreement facilitates international trade in nuclear technology and materials, ensuring that Canadian nuclear exports are used for peaceful purposes only.
<p>CNSC Global Affairs Canada</p>	<p>U.S. Export-Import (nuclear), Export and Import Permits</p> <ul style="list-style-type: none"> • Permits and approvals required for exporting or importing nuclear-related goods between the U.S. and Canada.