



FINAL ENVIRONMENTAL ASSESSMENT

Section 7.7 First Nations Rights,
Interests and Use of Land and Resources
November 2023

Acknowledgements

We wish to acknowledge that the Waasigan Transmission Line Project is located within lands that represent the traditional territories and homelands of the Robinson-Superior Treaty (1850) First Nations and Treaty #3 (1873), and traverse the Red Sky Métis Independent Nation, Northwestern Ontario Métis Community and Northern Lake Superior Métis Community.

Hydro One also wishes to acknowledge Indigenous artist, Storm Angeconeb, for developing the covering page and wildlife designs throughout the Final Environmental Assessment. Storm is a highly recognized visual artist from Lac Seul First Nation in Treaty #3 and currently resides in Red Lake. Many of her works include animals and birds as representations of herself or those close to her. The artist's description of the covering page is presented below.

Hydro One Environmental Study Art:

What stands out in this art piece is the symbolic representation of solar rays as "Bringing Power"; we can see the environment represented through the wildlife and Ojibwe floral visuals. This artwork is an excellent representation of Hope, Life, and Opportunity, visually portrayed through the Black Bear and her two cubs. The colour theme of this artwork comes from the Waasigan Transmission Line Project brand identity.

Artist: Storm Angeconeb

Final Environmental Assessment Report copyright © 2023 Hydro One Networks Inc.



Table of Contents

7.7	First Nations Rights, Interests and Use of Land and Resources	7.7-1
7.7.1	Context	7.7-2
7.7.1.1	United Nations Declaration on the Rights of Indigenous People	7.7-2
7.7.1.2	Section 35 Rights.....	7.7-3
7.7.2	First Nations.....	7.7-4
7.7.2.1	Couchiching First Nation.....	7.7-4
7.7.2.2	Fort William First Nation.....	7.7-4
7.7.2.3	Lac des Mille Lacs First Nation	7.7-5
7.7.2.4	Lac La Croix First Nation	7.7-5
7.7.2.5	Lac Seul First Nation.....	7.7-6
7.7.2.6	Migisi Sahgaigan (Eagle Lake First Nation)	7.7-6
7.7.2.7	Mitaanjigamiing First Nation.....	7.7-6
7.7.2.8	Nigoonsiminikaaning First Nation.....	7.7-6
7.7.2.9	Ojibway Nation of Saugeen.....	7.7-7
7.7.2.10	Seine River First Nation	7.7-7
7.7.2.11	Wabigoon Lake Ojibway Nation	7.7-7
7.7.3	Input from Engagement.....	7.7-8
7.7.4	Information Sources.....	7.7-15
7.7.5	Criteria and Indicators	7.7-17
7.7.6	Assessment Boundaries	7.7-19
7.7.6.1	Temporal Boundaries.....	7.7-19
7.7.6.2	Spatial Boundaries.....	7.7-20
7.7.7	Baseline Data Collection Method	7.7-23
7.7.7.1	Engagement and Indigenous Knowledge Studies	7.7-23
7.7.7.2	Review of Publicly Available Information.....	7.7-27
7.7.8	Description of the Existing Environment.....	7.7-28
7.7.8.1	Access to Resources	7.7-29
7.7.8.2	Wildlife Harvesting	7.7-31
7.7.8.3	Fish Harvesting.....	7.7-33
7.7.8.4	Plant and Material Harvesting	7.7-35



7.7.8.5	Culturally Important Sites and Cultural Heritage.....	7.7-38
7.7.9	Potential Project-Environment Interactions.....	7.7-41
7.7.10	Potential Effects, Mitigation Measures, and Net Effects	7.7-44
7.7.10.1	Changes in the Area (ha) of Unoccupied Crown Land Converted to Occupied Crown Land	7.7-44
7.7.10.2	Changes in the Availability of Harvested Resources	7.7-46
7.7.10.3	Changes in Access to Preferred Harvesting Areas	7.7-51
7.7.10.4	Changes in Access to Culturally Sensitive, Sacred, or Spiritual Landscapes and Sites.....	7.7-54
7.7.10.5	Changes in Quality of Experience/Sense of Place	7.7-57
7.7.10.6	Potential Effects, Mitigation Measures, and Predicted Net Effects	7.7-60
7.7.11	Net Effects Characterization.....	7.7-65
7.7.11.1	Net Effects Characterization Approach	7.7-65
7.7.11.2	Net Change in Area (ha) of Unoccupied Crown Land Converted to Occupied Land.....	7.7-66
7.7.11.3	Net Change in Availability of Harvested Resources	7.7-67
7.7.11.4	Net Change in Access to Preferred Harvesting Areas.....	7.7-67
7.7.11.5	Net Change in Access to Culturally Sensitive, Sacred or Spiritual Landscapes and Sites.....	7.7-68
7.7.11.6	Net Change in Quality of Experience or Sense of Place	7.7-69
7.7.11.7	Assessment of Significance	7.7-71
7.7.12	Cumulative Effects Assessment.....	7.7-71
7.7.12.1	Regional Context	7.7-72
7.7.12.2	Reasonably Foreseeable Developments.....	7.7-81
7.7.12.3	Cumulative Effects Characterization	7.7-89
7.7.12.4	Assessment of Significance of Cumulative Effects.....	7.7-92
7.7.13	Monitoring	7.7-92
7.7.14	Prediction Confidence in the Assessment	7.7-93
7.7.15	Criteria Summary.....	7.7-94
References		7.7-95



Tables

Table 7.7-1:	Summary of Comment Themes Raised during Engagement with First Nations	7.7-9
Table 7.7-2:	First Nation Rights, Interest and Use of Land and Resources Criteria and Indicators	7.7-17
Table 7.7-3:	Spatial Boundaries for First Nations Rights, Interests and Use of Land and Resources.....	7.7-20
Table 7.7-4:	Project-Environment Interactions for First Nations Rights, Interests and Use of Land and Resources.....	7.7-42
Table 7.7-5:	Potential Effects and Mitigation Measures to Section 35 Rights	7.7-61
Table 7.7-6:	Magnitude Effect Levels for First Nations Rights, Interests and Use of Land and Resources	7.7-65
Table 7.7-7:	Characterization of Predicted Net Effects.....	7.7-70
Table 7.7-8:	Regional RFI Habitat or Landscape Types.....	7.7-73
Table 7.7-9:	Reasonably Foreseeable Developments that Overlap and Interact with the Regional Study Area	7.7-82
Table 7.7-10:	Summary of Cumulative Effect Interactions for First Nations Rights, Interests and Use of Land and Resources	7.7-87
Table 7.7-11:	Summary of Predicted Net Cumulative Effects on First Nations Rights, Interests and Use of Land and Resources	7.7-91
Table 7.7-12:	First Nations Rights, Interests and Use of Land and Resources Summary	7.7-94

Figures

Figure 7.7-1:	Project Footprint, Local Study Area, and Regional Study Area.....	7.7-22
---------------	---	--------



7.7 First Nations Rights, Interests and Use of Land and Resources

Anishinaabewinaakonigewinan, enwaatamang Aki

Aboriginal and Treaty Rights are recognized under Section 35 of Canada's *Constitution Act, 1982* (also referred to as Section 35 rights), which includes recognition of existing rights to hunt, trap, fish, gather and manage the lands for all First Nation, Inuit and Métis people of Canada. Hydro One Networks Inc. (Hydro One) recognizes the distinctions between and among First Nations, Métis and Inuit and is committed to building meaningful relationships with all Indigenous peoples through cooperation, trust and shared responsibility.

This section describes the assessment of the potential effects of the Waasigan Transmission Line project (the Project) on First Nations rights, interests and use of lands and resources (see Section 7.8 for the assessment of effects to Métis rights, interests and use of lands and resources). For the purposes of this assessment, First Nations rights, interests and use of lands and resources has been defined to include the ability of First Nations people to practice their Section 35 rights, including access to preferred areas and the exercise of their rights with respect to resource harvesting (e.g., hunting, trapping, fishing, gathering), to experience culturally sensitive, sacred or spiritual landscapes and sites, and to maintain quality of experience/sense of place in areas within traditional territories.

Indigenous Knowledge (IK) refers to the combination of traditional knowledge (TK) and traditional land and resource use (TLRU). Use of the term 'traditional' within this section is not intended to imply that use is only 'historic'. Instead, it is intended to reflect knowledge of land and resource use acquired through the experience and the social processes of learning and sharing knowledge that is unique to each Indigenous culture (Battiste and Youngblood Henderson 2000). Current land and resource use by Indigenous peoples is influenced by traditional knowledge systems, which are cumulative, dynamic, and continually building on experience and adapting to change (Usher 2000).

The rights, interests and use of lands and resources of the following First Nation communities participating in the Project are considered in this section: Couchiching First Nation, Migisi Sahgaigan (Eagle Lake First Nation), Fort William First Nation (Anemki Wajiw), Mitaanjigamiing First Nation, Nigigoonsiminikaaning First Nation, Ojibway Nation of Saugeen, Lac des Mille Lacs First Nation (Nezaadikaang), Lac La Croix First Nation (Zhingwaako Zaaga'Igan or Gakijiwanoong), Lac Seul First Nation (Obishikokaang), Seine River First Nation (Chima'aganing), and Wabigoon Lake Ojibway Nation (Waabigonii Zaaga'igan).

The assessment follows the general approach and concepts described in Section 5.0, including recognizing and reflecting that western science and Indigenous teachings may approach environmental evaluation differently.



7.7.1 Context

7.7.1.1 *United Nations Declaration on the Rights of Indigenous People*

The United Nations Declaration on the Rights of Indigenous People (UNDRIP), which establishes a universal framework to recognize and respect the rights of Indigenous peoples, was passed on September 13, 2007, by the United Nations General Assembly. In 2021, the Government of Canada passed Bill C-15 *United Nations Declaration on the Rights of Indigenous Peoples Act*, which provides a process for the Government of Canada and Indigenous peoples to work together to implement the UNDRIP Declaration (United Nations 2017) (Government of Canada 2023). As of the current date, the Government of Ontario has not adopted UNDRIP into its laws.

There are several articles of UNDRIP that are particularly relevant to conducting environmental assessments in Canada (United Nations 2017) (UNDRIP 2019). Below is a list of the most relevant articles considered in this environmental assessment (EA) and in Project planning:

- Article 11 (1) Indigenous peoples have the right to practice and revitalize their cultural traditions and customs. This includes the right to maintain, protect, and develop the past, present, and future manifestations of their cultures, such as archaeological and historical sites, artefacts, designs, ceremonies, technologies and visual and performing arts and literature.
- Article 12 (1) Indigenous peoples have the right to manifest, practice, develop and teach their spiritual and religious traditions, customs, and ceremonies; the right to maintain, protect, and have access in privacy to their religious and cultural sites; the right to the use and control of their ceremonial objects; and the right to the repatriation of their human remains.
- Article 26 (1) Peoples have the right to the lands, territories, and resources which they have traditionally owned, occupied or otherwise used or acquired.
- Article 31 (1) Indigenous peoples have the right to maintain, control, protect, and develop their cultural heritage, traditional knowledge, and traditional cultural expressions, as well as the manifestations of their sciences, technologies, and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports, and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions (United Nations 2017).

Hydro One acknowledges that Indigenous communities have historically borne the impacts of development without benefiting from it and is committed to a journey of reconciliation that considers the principles of UNDRIP in Project planning (Hydro One 2021c).



7.7.1.2 Section 35 Rights

Aboriginal and Treaty Rights are recognized and affirmed by Section 35 of the *Constitution Act, 1982*, and are hereafter referred to as Section 35 Rights. Within Canadian law and jurisprudence, Section 35 Rights are understood as constitutionally protected rights held by Indigenous peoples that relate to activities that are an element of a practice, custom, or tradition integral to the distinctive culture of the Indigenous group claiming such rights, and have continuity with the practices, customs and traditions that existed prior to contact with European society. These rights may include (but are not limited to) activities such as cultural and ceremonial practices, land management, hunting, fishing, trapping, and gathering.

In recognition of these rights, the Governments of Canada and Ontario hold the duty to consult Indigenous communities about this Project. The Crown may delegate to a proponent the procedural aspects of consultation, but the ultimate legal responsibility to meet the duty to consult lies with the Crown. The Ontario Ministry of Energy (formerly the Ministry of Energy, Northern Development and Mines; ENDM) determined the Project may have the potential to affect established or asserted Aboriginal and Treaty Rights and Interests of First Nation and Métis communities, nations and organizations and delegated the procedural aspects of the Crown's Duty to Consult to Hydro One. The Ontario Ministry of Energy identified the Indigenous communities to be consulted by Hydro One on the Project (listed in Section 7.7.2), as well as the delegated procedural aspects of the duty to consult to be undertaken by Hydro One. These are described in Section 4.0 (Engagement Summary) and Section 7.7.2, below.

Hydro One is committed to ongoing engagement and consultation with these identified First Nations communities and to developing collaborative working relationships with each through the EA process, to the Project in-service date and beyond.

7.7.1.2.1 Treaties

The Project is located within the boundaries of Treaty #3 (1873) and the Robinson Superior Treaty (1850). These Treaties were made between the Crown and Anishinaabe and Anishinninuwug signatories in 1873 with adhesions to Treaty #3 in 1874 and 1875. The First Nations exercise their Section 35 rights, including harvesting rights, on these lands.

Potentially affected First Nation in the Robinson Superior Treaty (1850) is:

- Fort William First Nation (Anemki Wajiw).

Potentially affected First Nation communities in Treaty #3 are:

- Couchiching First Nation;
- Migisi Sahgaigan (Eagle Lake) First Nation;
- Mitaanjigamiing First Nation;
- Nigigoonsiminikaaning First Nation;



- Ojibway Nation of Saugeen;
- Lac des Mille Lacs First Nation (Nezaadikaang);
- Lac La Croix First Nation (Zhingwaako Zaaga'Igan or Gakijiwanoong);
- Lac Seul First Nation (Obishikokaang);
- Seine River First Nation (Chima'aganing); and
- Wabigoon Lake Ojibway Nation (Waabigonii Zaaga'igan).

Manito Aki Inakonigaawin or the Great Earth Law, states that the Anishinaabe Nation in Treaty #3 maintains rights to the land and water in the territory. Manito Aki Inakonigaawin requires those who may affect the environment of Treaty #3 territory or the exercise of rights and interests of the Anishinaabe, to consult with the Nation (Grand Council Treaty #3 2022).

A brief introduction to the locations of the First Nations identified above are provided in Section 7.7.2. Appendix 7.2A includes community profiles for these First Nations, with additional information on community background, economic development and relationship to the Project. Potential effects of the Project on Métis rights, interests and land uses are addressed in Section 7.8.

7.7.2 First Nations

7.7.2.1 Couchiching First Nation

Couchiching First Nation is located on the shores of Rainy Lake, near Fort Frances, approximately 200 km south of Dryden and 150 km west of Atikokan. Couchiching First Nation is a signatory to Treaty #3. The on-reserve population of Couchiching First Nation is approximately 720 individuals with a total population of 2,981 living both on and off-reserve (AANDC 2023). The community vision is to be an “inviting, self-sustaining model community that embraces all aspects of the Anishinaabe culture and traditions with an emphasis on environmental stewardship” (Couchiching First Nation 2023).

7.7.2.2 Fort William First Nation

Anemki Wajiw

Fort William First Nation is located on the western shores of Lake Superior, south of Thunder Bay. The Fort William Reserve was created in 1853, as a condition of the Robinson Superior Treaty signed at Sault Ste. Marie on September 7, 1850. Chief Joseph Peau de Chat signed on behalf of the Fort William Anishinabeg. Fort William First Nation's on-reserve population is 1,015 individuals, with a total population of 2,764. Fort William First Nation is a GLP member community.



Fort William First Nation is “dedicated to supporting the health of their people inclusive of the physical, mental, emotional, and spiritual wellbeing for a successful community” (Fort William First Nation 2023).

7.7.2.3 Lac des Mille Lacs First Nation

Nezaadikaang

Lac des Mille Lacs First Nation is located approximately 135 km west of Thunder Bay on the northeastern shores of Lac des Mille Lacs. The First Nation consists of two reserves: Lac des Mille Lacs First Nation Reserve 22A1, located approximately 135 km west of Thunder Bay and Lac des Mille Lacs First Nation Reserve 22A2, located approximately 20 km west of the township of Upsala. Lac des Mille Lacs First Nation was one of the three First Nations who adhered to Treaty #3 on October 13, 1873, as part of the Shebandowan Adhesion, ten days after the other Treaty #3 First Nations had signed. The community has an on-reserve population of 7 people and an off-reserve population of 633. Lac des Mille Lacs First Nation is a Hydro One partner on the Project.

Over three distinct flooding periods, with the last occurring in the 1950s, the people of the Lac des Mille Lacs First Nation had been forced to leave their traditional lands and reserves. Most current members are dispersed throughout northwestern Ontario and northern United States. Over time, Lac des Mille Lacs First Nation has realized significant economic development, including the construction of an access road (South McKay Creek Rd), as well as the construction of a Roundhouse and a Community Cultural Centre. The First Nation also launched the Lac des Mille Lacs Education Centre in 2019. Despite these accomplishments only seven individuals permanently reside on Lac des Mille Lacs First Nation. The Lac des Mille Lacs First Nation operates through its Administration office located on Fort William First Nation.

Lac des Mille Lacs First Nation’s purpose is to “continually improve the quality of life, social and cultural well-being of their membership for present and future generations” (Lac des Mille Lacs First Nation 2023).

7.7.2.4 Lac La Croix First Nation

Gakijiwanoong

Signatory to Treaty #3, Lac La Croix First Nations is 58 air km southwest of Atikokan on the north shore of Lac La Croix. The community is located in the Rainy River District of Northwestern Ontario along the Ontario-Minnesota border, 110 km south west of Atikokan. The languages spoken within the community are English and Ojibway. Their on-reserve population is 322 with a total population of 588 individuals. Lac La Croix First Nation is a signatory to Treaty #3. Lac La Croix First Nation is a GLP member community.



7.7.2.5 *Lac Seul First Nation*

Obishikokaang

Lac Seul First Nation reserve is located approximately 38 km northwest of Sioux Lookout and is accessible via Highway 664. There are four distinct settlements located within the reserve: Canoe River, Frenchman's Head, Kejick Bay, and Whitefish Bay. Lac Seul First Nation is the only community in the Sioux Lookout region with three distinct settlements and is one of the largest reserves in the Treaty #3 region of Northwestern Ontario with an on-reserve population of 971 and a total population of 3,689 individuals. Lac Seul First Nation is a GLP member community.

7.7.2.6 *Migisi Sahgaigan (Eagle Lake First Nation)*

Migisi Sahgaigan (Eagle Lake First Nation) is an Ojibwe community located on the northeast shores of Eagle Lake and is part of the 28 communities of the Treaty #3 Region. The Eagle Lake No. 27 Reserve is located approximately 25 km southwest of Dryden on Highway 594. Eagle Lake First Nation is under the Bimose Tribal Council (BTC) Political Territorial Organization, Grand Council Treaty #3 which was signed on October 3, 1873. Migisi Sahgaigan's total registered population is approximately 650 with an on-reserve population of 378 individuals. Migisi Sahgaigan is a GLP member community.

The Migisi Sahgaigan community website indicates that "the land is the source of all life and teachings" and states "Maanachi Totaa-aki - keeping the land is a responsibility we have, we took care of our lands in the past. The land gives and teaches us about Bimaatizowin (Good Life). The stories and legends drawn from the natural world are passed down to educate and teach us about Bimaatizowin, past, present and future. Ka kina kego naapsin tells us that everything is interconnected and that we must live in harmony with the natural world and maintain balance in order to have a good life", as part of a larger set of the community's beliefs (Migisi Sahgaigan 2022).

7.7.2.7 *Mitaanjigamiing First Nation*

Mitaanjigamiing First Nation is located on the shores of Rainy Lake near Fort Frances, Ontario, approximately 200 km southeast of Dryden. Mitaanjigamiing First Nation is a signatory to Treaty #3. The community has an on-reserve population of approximately 130 with a total population of 198 individuals (AANDC 2023).

The Mitaanjigamiing First Nation community website shares that their vision "is to improve communication and provide quality services to our First Nation members" (Mitaanjigamiing First Nation 2023).

7.7.2.8 *Nigigoonsiminikaaning First Nation*

Nigigoonsiminikaaning First Nation is located in Northwestern Ontario, approximately 40 km east of Fort Frances. Signatory to Treaty #3, Nigigoonsiminikaaning First Nation consists of three reserves: Rainy Lake No. 26A, No. 26B, and No. 26C. The most populated site is Rainy



Lake No. 26A, which can be accessed via Highway 11. Nigigoonsiminikaaning First Nation's population is 423, with 183 living on reserve. Nigigoonsiminikaaning First Nation is a GLP member community.

The Nigigoonsiminikaaning First Nation community website shares that “through the teachings of our ancestors, we will honour our children by continually striving to build a sustainable community that is culturally socially and economically healthy. We recognize that children are sacred gifts and will strive to provide them with a safe and nurturing environment.” (Nigigoonsiminikaaning First Nation 2021).

7.7.2.9 Ojibway Nation of Saugeen

The Ojibway Nation of Saugeen is located in Northwestern Ontario, approximately 50 km northeast of Sioux Lookout and 20 km northwest of Savant Lake. The community is accessible year round via Highway 599. The Ojibway Nation of Saugeen is a signatory to Treaty #3. The community has an on-reserve population of 88 individuals, and a total population of 245. Ojibway Nation of Saugeen is a signatory to Treaty #3. Ojibway Nation of Saugeen is a GLP member community.

7.7.2.10 Seine River First Nation

Chima'aganing

Seine River First Nation is located on the shores of Wild Potato Lake on the Seine River, 67 km west of Atikokan and 85 km east of Fort Frances. Signatory to Treaty #3, Seine River First Nation consists of three reserves; the main reserve is Seine River 23A (Ashkibwaanikaaning), along with Seine River 23B (Mitaawangwe-ziibiing) and Sturgeon Falls 23. The languages spoken within the community are Ojibway and English. Seine River First Nation has an on-reserve population of 436, with a total population of 807 individuals. Seine River First Nation is a GLP member community.

Seine River First Nation identifies that they have a “connection to their culture as Anishinaabe that forms the root of who they are and how they walk in this world and how they will continue to prepare for the future of their community and ensure prosperity for the generations of community members that will come after them.” (Seine River First Nation 2021).

7.7.2.11 Wabigoon Lake Ojibway Nation

Waabigonii Zaaga'igan

Wabigoon Lake Ojibway Nation occupies Wabigoon Lake No. 27 Reserve, which is located 19 km southeast of Dryden on Highway 17. Community members are descendants of the Salteaux Ojibway people and their native language is Ojibway. The Wabigoon Lake reserve was first laid out in 1884 and was confirmed by the Ontario government in 1915. The Wabigoon Lake Ojibway Nation is affiliated with the Bimose Tribal Council and Grand Council Treaty #3. As of April 2023, Wabigoon Lake Ojibway Nation has an on-reserve population of 190 individuals with



a total population of 945 (AANDC 2023). Wabigoon Lake Ojibway Nation is a GLP member community.

The Wabigoon Lake Ojibway Nation community website, shares that the “ancient presence of Wabigoon Lake Ojibway Nation people on their land is reflected in its vast forests and countless lakes, rivers and streams. Aki and Nibi - the land and water - are vital resource for the people of Wabigoon Lake Ojibway Nation and must be protected” (Wabigoon Lake Ojibway Nation [WLON] 2023).

7.7.3 Input from Engagement

Questions and comments related to the assessment of First Nation rights, interests and land use raised by First Nation communities during meetings and engagement activities, as well as where and/or how they were addressed in the EA are presented in Table 7.7-1. In addition, the Draft EA Report was provided to Indigenous communities, government officials and agencies, and interested persons and organizations for review and comment on May 17, 2023. A high-level summary of the key themes from the comments on the Draft EA Report are included in Table 7.7-1. The detailed responses to these comments are included in Appendix 4.0-A.

Where comments are attributed to the Gwayakocchigewin Limited Partnership (GLP), this represents feedback shared through the GLP, their Environmental Protection Committee, and their consultants in meetings or through written documentation. This input is understood to represent concerns raised by member communities within the GLP. Where input is identified from GLP and also from a member community, additional feedback shared directly by a member community to Hydro One through meetings, open houses or written documentation was shared in addition to contributions through GLP.

Recognizing the inherent connections between changes to the physical environment and the practice of First Nation rights, interests and land use, it is noted that important input from First Nations communities provided of relevance to the other sections of this EA (including surface water, aquatic environment, plants and wetlands, wildlife and wildlife habitat, fish and fish habitat, land and resource use, community well-being), while not summarized in Table 7.7-1, influences the outcomes of this assessment also. Comments included in the table below are focused to comment themes most directly linked to the practice of First Nation rights, interests and land.



Table 7.7-1: Summary of Comment Themes Raised during Engagement with First Nations

Comment Theme	How Addressed in the Environmental Assessment	Indigenous Community/Group
Concerns regarding the use of herbicides.	Through engagement during the Draft EA Report review process, Hydro One heard feedback from Indigenous communities and stakeholders regarding concerns with the use of herbicides to remove and manage vegetation on the Project. After extensive consideration of this feedback, herbicides will not be used during construction of the Project or for future maintenance of this transmission line. The Final EA has been updated to reflect this.	Gwayakocchigewin Limited Partnership Grand Council Treaty #3 Lac des Mille Lacs First Nation Mitaanjigamiing First Nation
Need for integration of Indigenous Knowledge (IK) throughout the assessment and importance of protecting First Nations' Intellectual Property especially as it pertains to cultural knowledge of the land and IK.	Hydro One has signed agreements with communities who wished to share IK information, which protects the community's information and prevents Hydro One from sharing it without the First Nation's consent. Hydro One has worked to incorporate traditional land and resource use information and IK that the community chooses to provide to inform the Project and will continue to do so. Hydro One is committed to incorporating shared IK information at all key Project milestones.	Gwayakocchigewin Limited Partnership Lac des Mille Lacs First Nation Mitaanjigamiing First Nation Grand Council Treaty #3
Question as to how IK was incorporated as part of the field work planning.	Additional fieldwork was added to the wildlife and wildlife habitat program in response to comments from Indigenous communities, to collect additional information on turtles and gray fox. Planned survey locations were shifted in two locations where requests from Indigenous communities were received for locations to avoided. Also, Indigenous field participants participated in the field surveys and provided IK in the field.	Gwayakocchigewin Limited Partnership Lac des Mille Lacs First Nation Mitaanjigamiing First Nation



Comment Theme	How Addressed in the Environmental Assessment	Indigenous Community/Group
Importance of working with First Nations to avoid and protect areas of known or potential burial sites.	Through discussions with First Nations and review of IK information shared, sites of importance have been identified that may be affected by the Project, considered further within this section. Hydro One is working with communities to clarify spatial and timing constraints for site-specific areas of concerns, and through engagement develop appropriate mitigation or avoidance measures. Indigenous community participation in Stage 2 archaeological assessment planning and field studies, and cultural awareness training for the Project personnel seek to support protection of burial sites.	Gwayakocchigewin Limited Partnership Fort William First Nation Migisi Sahgaigan (Eagle Lake First Nation) Lac des Mille Lacs First Nation Mitaanjigamiing First Nation
Importance of cultural protocols being followed that show respect and reciprocity for the land.	Hydro One is working with each Indigenous community to understand and incorporate their cultural protocols as appropriate. This includes mitigation for cultural awareness training to be provided to the contractor, including to facilitate the identification of unexpected archaeological resources and protocols/procedures for reporting.	Gwayakocchigewin Limited Partnership Wabigoon Lake Ojibway Nation Fort William First Nation Mitaanjigamiing First Nation
Importance of protecting culturally significant vegetation.	Plant species shared by communities to be of cultural importance have been added to Section 6.4.5 and Appendix 6.4-A. Potential effects to vegetation and wetlands, including example plants of traditional use and provincially significant wetlands are assessed and appropriate mitigation measures are identified in Section 6.4. Outcomes of potential change to availability or distribution of traditional use plant species are considered in this section related to potential for effects to harvest, along with applicable mitigation. For example, Hydro One will continue to work with First Nations communities to provide opportunities to conduct pre-clearing harvest.	Gwayakocchigewin Limited Partnership Migisi Sahgaigan Nigigoonsiminikaaning First Nation Grand Council Treaty #3 Lac des Mille Lacs First Nation



Comment Theme	How Addressed in the Environmental Assessment	Indigenous Community/Group
<p>Buffers are needed around water and wetlands to protect water quality, especially in areas of spawning habitat for fish or supporting wild rice.</p>	<p>Section 6.4 Vegetation and Wetland describes mitigations measures applicable to the protection of wetlands and plants of traditional use, including wild rice. Section 6.6 Fish and Fish Habitat describes mitigations measures applicable to fish and fish habitat. Through discussions with First Nations and review of IK information shared, additional mitigation measures have been added to reduce potential for effects to these important areas. For example, the construction of temporary (e.g., access road) and permanent (e.g., tower foundations) facilities in wetlands or within a 30 m setback from a wetland will be avoided as practicable and refuelling, service, and maintenance of vehicles and equipment will generally be carried out in designated areas at temporary construction camps and temporary laydown areas located a minimum of 120 m from waterbodies to the extent possible.</p> <p>Potential for effects and mitigation relevant to specific areas of sensitivity related to fishing or harvest of wild rice shared by First Nations communities are considered in this section.</p>	<p>Gwayakocchigewin Limited Partnership Lac des Mille Lacs First Nation Mitaanjigamiing First Nation</p>
<p>Importance of reducing effects to moose, which in turn reduce potential for effects to harvest of moose.</p>	<p>Through discussions with First Nations and review of IK information shared, additional mitigation measures have been added to reduce potential for effects to moose. For example, Hydro One will prioritize avoiding sensitive or important moose areas (e.g., traditional hunting grounds, calving areas, late winter cover areas, mineral licks, etc.) when selecting alternate or preferred new access routes. Section 6.5 includes further discussion of the assessment of effects to moose.</p>	<p>Gwayakocchigewin Limited Partnership Lac des Mille Lacs First Nation</p>



Comment Theme	How Addressed in the Environmental Assessment	Indigenous Community/Group
<p>Concern regarding the impact of construction activities (i.e., helicopters, equipment) on hunting activities.</p>	<p>This assessment includes consideration of potential for effects of helicopter use during construction on the practice of hunting. Mitigation measures developed with communities and documented in this section include continuing discussions with affected Indigenous communities on priority hunting areas and helicopter activity within these areas. Helicopter use in identified priority hunting areas will be limited to the extent reasonably possible. This may include adjusting flight paths around sensitive features or altering start and end times during the day for specific areas.</p>	<p>Gwayakocchigewin Limited Partnership</p>
<p>Need for a clear understanding of commitments made to be shared with First Nations, including those related to monitoring, restoration and communication during construction.</p>	<p>Mitigation measures related to the practice of First Nation rights, interests and land uses, including those related to monitoring, restoration and communication during construction, are included in this section, summarized in Table 7.7-8.</p> <p>Commitments made through the EA are documented as a list in Appendix 10.0-A.</p>	<p>Gwayakocchigewin Limited Partnership</p>
<p>Interest in reviewing the construction Environmental Protection Plan.</p>	<p>As noted in this section and in Section 10.0 Monitoring and Commitments, the Environmental Protection Plan which guides implementation of the mitigation measures related to environmental protection will be provided for affected First Nations for review at least 90 days prior to construction. A process for monitoring will be developed in collaboration with First Nations and included as part of Indigenous monitoring plans.</p> <p>Hydro One is committed to employing Indigenous Environmental Monitors and/or Guardians and will collaborate with communities to implement the monitoring of Project-related effects and compliance monitoring throughout all Project stages.</p>	<p>Gwayakocchigewin Limited Partnership Lac des Mille Lacs First Nation</p>



Comment Theme	How Addressed in the Environmental Assessment	Indigenous Community/Group
Consider the impact of the construction workforce on local and Indigenous communities, including the requirements for temporary accommodation, food, transportation and other services for the construction workforce of this Project.	Section 7.2 Community Well-being characterizes potential effects as well as benefits and applicable mitigation measures of the presence of a construction workforce, including consideration of potential effects to Indigenous communities.	Gwayakocchigewin Limited Partnership
Comments regarding benefits of the Project for Indigenous communities.	Section 7.3 Economy characterizes benefits of the Project, including providing economic participation opportunities to Indigenous communities through training, employment and business creation. For its First Nations partners (i.e., member communities of the Gwayakocchigewin Limited Partnership and Lac des Mille Lacs First Nation), the Project has also created opportunity for equity ownership in the future transmission line.	Gwayakocchigewin Limited Partnership Lac des Mille Lacs First Nation Mitaanjigamiing First Nation
Importance of Indigenous community perspectives in relation to assessing the significance of an effect on Indigenous rights, including acknowledging factors that may affect the appropriateness of an area for the practice of rights and regional pressures.	The assessment of effects in this section to the criteria of change in the area of unoccupied Crown land converted to occupied, as well as the assessment of net effect and cumulative effects have been updated to acknowledge the importance of Indigenous community perspectives in relation to assessing the significance of an effect on Indigenous Rights. As well, additional regional context has been added within Section 7.7.12 to reflect regional pressures on the appropriateness of areas for the practice of Section 35 rights.	Gwayakocchigewin Limited Partnership
Concern around finding areas of importance during construction and whether changes can still be made to the Project footprint.	Culturally sensitive areas that are of concern to communities and can be shared in a way that aligns with community protocols and preferences during the Project planning stage are documented in this EA, along with next steps. Hydro One will continue to work with First Nation communities as IK	Seine River First Nation



Comment Theme	How Addressed in the Environmental Assessment	Indigenous Community/Group
	<p>information becomes available to identify specifically affected areas of harvested resources (i.e., hunting, trapping, fishing, gathering) or areas of cultural importance, and review existing or develop appropriate mitigation or avoidance measures. As IK information becomes available, the information will be incorporated into the next Project planning and decision-making milestone. The EA includes a 'limits of work' concept if Project components needs to shift (Section 11.0).</p>	
<p>Request that a Human Health Risk Assessment be conducted to address concerns related to pollutants, air quality and electric and magnetic field (EMF) exposure.</p>	<p>Baseline studies regarding air quality were conducted and presented in Section 6.7 of the EA. Air Quality Criteria and Indicators consider Indigenous Knowledge and Indigenous community feedback regarding the importance of air quality. EMF are discussed in Section 3.0 Project Description.</p>	<p>Grand Council Treaty #3</p>
<p>The importance of inclusion of the Anishinaabe Manito Aki Inakonigaawin and traditional knowledge, including the application Anishinaabe laws and processes as a guiding framework in the decision-making and the environmental assessment.</p>	<p>Hydro One has been working with potentially affected Indigenous communities since 2020 to support community-led IK studies. As available, and as appropriate, the results of these studies have been incorporated into the EA. The provision of culturally sensitive information has been considered by the Project team but maintained as confidential and excluded from EA reporting. Hydro One will continue to work with Grand Council Treaty #3 on how Manito Aki Inakonigaawin is integrated into the Project.</p>	<p>Grand Council Treaty #3</p>

Comment Theme	How Addressed in the Environmental Assessment	Indigenous Community/Group
Concerns regarding the over-reliance of desk-top datasets provided by third parties. The concern rests in the use of out-dated data, and computer-generated data models that are not representative of Anishinaabe knowledge and processes.	The review of available desktop data was a first step in the baseline characterization process. Field data collected during the 2022 field programs was then used to inform the baseline and effects assessments. As noted above, where available, and as appropriate, IK shared by Indigenous communities including the results of community-led IK studies were incorporated into the EA process.	Gwayakocchigewin Limited Partnership Grand Council Treaty #3
Clarification if the new transmission line will share the ROW with the existing transmission line.	Where the new transmission line is co-located with an existing transmission line, a setback distance would be required from the existing line (e.g., a certain distance would have to be maintained between the two lines). Additional ROW and clearing will be required to accommodate installation of the new line. Information on the Project design is included in Section 3.0 (Project Description).	Migisi Sahgaigan
Consideration of cougar.	The input from engagement section shared in Section 6.5 discusses how cougar were considered relative to inclusion in the EA and recognizes the approximately 4 observations of cougar over the last 20 years by Lac des Mille Lacs First Nation community members.	Lac des Mille Lacs First Nation

EA = environmental assessment; GLP = Gwayakocchigewin Limited Partnership; IK = Indigenous Knowledge; ROW = right-of-way; LSA = local study area; SAR = Species at Risk; SWH = Significant Wildlife Habitat.

7.7.4 Information Sources

Information for this baseline was obtained from the following sources:

- Community-led and Project-specific IK studies and planning (see Section 7.7.7);
- Results of Hydro One's engagement and consultation activities with Indigenous communities (see Section 4 and Section 7.7.7);
- Knowledge shared by Indigenous field monitors and crew members during field studies;



- Cultural awareness training provided by communities to Project team members;
- Publicly available data related to First Nations land and resource use, including through forest management plans and provincial parks and protected area management plans;
- Previous EAs in the region, reviewed for publicly available IK relevant to potentially affected Indigenous communities, including Wataynikaneyap Power Phase 1 New Transmission Line Environmental Assessment (Wataynikaneyap 2018), Treasury Metals Inc. Goliath Gold Project Environmental Assessment (Treasury Metals Inc 2018) and NextBridge East-West Tie Transmission Line Environmental Assessment (NextBridge 2018);
- First Nation community websites; and
- Results of the effects assessments for all other elements of the environment.

The First Nations Principles of Ownership, Control, Access, and Possession (OCAP®) provide a framework for conducting ethical and culturally sensitive research that works toward community empowerment, and First Nation data ownership and control (FNIGC 2023). Hydro One recognizes the importance of accurately representing Indigenous Knowledge, data, and cultural heritage and the connection this information and data has to Indigenous sovereignty and the well-being of Indigenous peoples. Where possible, Hydro One has considered OCAP® principles in an effort to ensure IK has been appropriately represented and respected.

First Nations have been asked to contribute to the EA and to validate contributions that have been made. The sources of First Nations data and IK provided have been cited throughout this section and other areas of the EA where IK and data have been shared. The information provided to Hydro One has been shared as part of the EA with the permission of the Nations who have provided the information and Hydro One recognizes this data and knowledge is owned by the First Nations who have contributed it.

All EA sections were provided to community contacts for each First Nation being engaged as part of the Project for review as part of the Draft EA review process stages. Distribution and receipt of comments from First Nations are reflected in the engagement section of the Final EA Report and in the Record of Consultation. More information regarding IK and the incorporation of First Nation data is provided in Section 7.7.8.1.

A number of community-led, Project-specific IK studies continue to advance but could not be shared at the time of preparing this assessment. Hydro One has committed to considering IK information whenever during the Project it is received. This commitment is reflected through the characterization of baseline and in the consideration of effects in this section.



7.7.5 Criteria and Indicators

Criteria are components of the environment that are considered to have economic, social, biological, conservation, aesthetic, or ethical and cultural value, as described in Section 5.2.

Indicators are an aspect or characteristic of a criterion that, if changed as a result of the Project, may demonstrate a physical, biological or socio-economic effect.

The criteria and indicators for the assessment of effects on the practice of First Nation Rights, Interest and Use of Land and Resources specific to Indigenous communities were initially outlined in the Draft Terms of Reference (ToR). Feedback from Indigenous communities, government officials and agencies, and interested persons and organizations received during engagement was incorporated into the preliminary criteria and indicators approved in the Amended ToR.

No concerns have been raised during the EA process regarding the preliminary criteria and indicators proposed in the Amended ToR. The criteria and indicators selected for the assessment of Project effects on First Nations Rights, including their Interests and use of land and resources, and the rationale for their selection, are provided in Table 7.7-2.

Table 7.7-2: First Nation Rights, Interest and Use of Land and Resources Criteria and Indicators

Criteria	Indicators	Rationale for Section	Measurement of Potential Effects
Use of land and resources for the current and traditional exercise of Indigenous rights	<ul style="list-style-type: none"> Changes to use of land and resources for traditional purposes considering: <ul style="list-style-type: none"> area (ha) of unoccupied Crown land being converted to occupied Crown land; availability of harvested resources (considering outcomes of assessments for wildlife, vegetation, fish); and access (increased or decreased) to preferred harvesting areas (hunting, trapping, fishing, and plant harvest) Quality of experience/sense of place in areas of 	<ul style="list-style-type: none"> IK and Indigenous community feedback regarding the importance of protecting Indigenous rights, interests, and use of land and resources. Avoid or minimize adverse effects to the exercise of First Nations rights and interests including land availability and harvesting practices and/or culturally sensitive sites. 	<ul style="list-style-type: none"> Quantitative assessment of change in Crown land. Quantitative assessment of change to the abundance of any species that is a preferred species for hunting, trapping, fishing, or harvesting. Qualitative assessment of changes from the Project that may result in changes or restrictions in harvesting practices identified by First Nation communities.



Criteria	Indicators	Rationale for Section	Measurement of Potential Effects
	use for traditional purposes, including sensory disturbance through Project-related changes to air quality, acoustics, and visual landscape (aesthetics).		
Cultural Landscapes and Intangible Cultural Heritage	<ul style="list-style-type: none"> • Changes to cultural practices considering: <ul style="list-style-type: none"> • Access to culturally sensitive, sacred or spiritual landscapes and sites; and • Quality of experience/sense of place in areas of use for traditional purposes, including sensory disturbance through Project-related changes to air quality, acoustics, and visual landscape (aesthetics). 	<ul style="list-style-type: none"> • Avoid or minimize effects to the exercise of First Nations rights and interests and expression of cultural practices and values. 	<ul style="list-style-type: none"> • Quantitative changes to cultural use locations that may be potentially removed or altered by the Project.

The indicators for First Nations rights, interest and land uses are discussed further below.

Changes to the Use of Land and Resources for Traditional Purposes

Changes from the Project may affect the current use of land and resources for traditional purposes. This criterion will be evaluated using several indicators, including the quantitative changes the area (ha) of unoccupied Crown land (i.e., areas without a permitted interest or development by another user that can be accessed) being converted to occupied (i.e., areas with a permitted interest or development by another user that may have limitations to access) described in Section 7.1 Land and Resource Use, which may affect the amount of land available for harvesting practices. The availability of, and access to, harvesting resources were also be assessed, using information provided in other sections of the assessment: Section 6.4 Vegetation and Wetlands, Section 6.5 Wildlife and Wildlife Habitat, and Section 6.6 Fish and Fish Habitat. Potential effects to preferred harvesting areas for hunting, trapping, fishing, and plant harvest will also be assessed, where information has been shared.

Changes to Cultural Landscapes, Intangible Cultural Heritage, & Cultural Practices

Changes from the Project may affect cultural sites, landscapes, intangible cultural heritage, and cultural practices. This criterion was evaluated using several indicators, including access to culturally sensitive, sacred or spiritual landscapes and sites, using information from IK studies provided by First Nation communities and the effects of the Project on protected areas including provincial parks in Section 7.1 Land and Resource Use, and cultural sites of relevance in Section 7.5 Archaeological Resources and 7.6 Built Heritage Resource. Changes in the quality of experience and sense of place in areas of use for traditional purposes, including sensory disturbance is also used as an indicator. This indicator considered perceived or physical changes in the environment that affect the experience of land or resource users and aesthetic changes that affect the desirability of the location for use from IK studies provided to date and predicted disturbance related effects of the Project reported in Section 6.7 Air Quality, Section 6.9 Acoustic Environment, 7.1 Land and Resource Use and Section 7.4 Aesthetics.

7.7.6 Assessment Boundaries

7.7.6.1 Temporal Boundaries

The construction of the Project is expected to commence in 2024, once all applicable permits and authorizations have been obtained. Currently, construction is expected to take approximately three to five years. Operation of the Project will occur continually over an indefinite period.

Following Project development, the Project lifecycle is expected to consist of three stages:

- **Construction stage:** the period from the start of construction to the start of operation (in-service date);
- **Operation and maintenance:** the period from the start of operation and maintenance activities through to the end of the Project life; and
- **Retirement stage:** the period from the start of retirement activities through to the end of final reclamation of the Project. The Project will be operated for an indeterminate period, and the effects of the Retirement Stage of the Project on First Nation Rights, Interests and Use of Land and Resources will likely be the same as the Construction Stage, therefore, these two stages will be assessed simultaneously in this section.

As described in Section 5.3.2, the Project will be operated for an indefinite period and the timing of retirement, or decommissioning, is not known at this time as it is anticipated that upgrades to reinforce or rebuild portions of the Project may occur over its lifetime to maintain its longevity. Further, potential effects and mitigation measures to be identified during the EA for the construction of the Project will likely equally apply to the potential removal of the Project at a future point in time, should it ever be required. Therefore, the potential effects of the construction and operations and maintenance stages are assessed as part of the EA, but



potential effects and mitigation measures for effects arising from retirement are not assessed in this EA.

7.7.6.2 Spatial Boundaries

Spatial boundaries for the assessment are provided in Table 7.7-3 and Figure 7.7-1 below.

Table 7.7-3: Spatial Boundaries for First Nations Rights, Interests and Use of Land and Resources

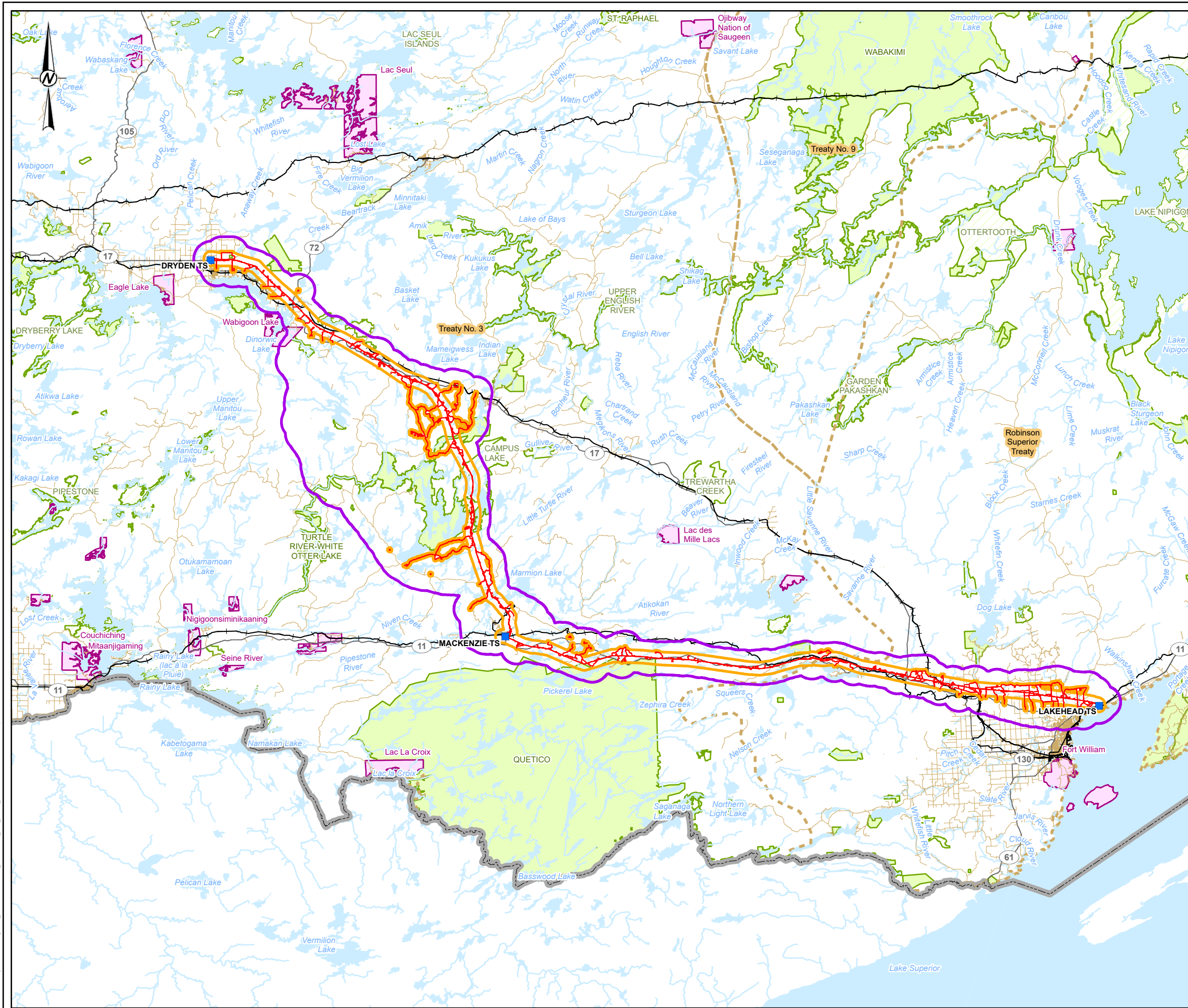
Spatial Boundary	Area (ha)	Description	Rationale
Project footprint	5,125	The project footprint includes: <ul style="list-style-type: none"> • Typical 46 metre (m) wide transmission line right-of-way (ROW); • Widened ROW for the separation of circuits F25A and D26A for 1 km; • Modification of the Lakehead TS, Mackenzie TS, and Dryden TS; • Access roads (existing roads and new); • Temporary supportive infrastructure associated with construction including fly yards, construction/stringing pads, laydown areas, construction camps, and helicopter pads; and • Aggregate pits. 	To capture the potential direct effects of the physical footprint of the Project.
Local Study Area (LSA)	174,682	Includes the Project footprint and a 2 km buffer on the transmission line ROW, 1.5 km buffer on the TS footprints and a 500 m buffer on access roads, supporting structures and aggregate pits.	To capture potential local direct and indirect effects of the Project that may extend beyond the Project footprint.



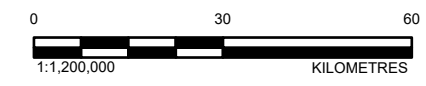
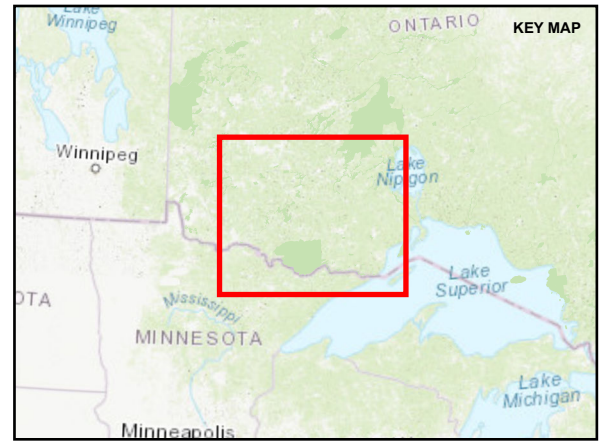
Spatial Boundary	Area (ha)	Description	Rationale
Regional Study Area (RSA)	765,183	Study area outlined in the ToR within which alternative routes including the preliminary Project footprint were identified.	This area was provided as a basis for consideration during initial IK study gap analysis planning and scoping in 2019 and represents a maximum extent considered in IK studies received to date. Allows consideration of potential for cumulative effects.

IK = Indigenous Knowledge; LSA = Local Study Area; ROW = right-of-way; RSA = Regional Study Area; TS = Transformer Station; m = metre; ha = hectare; km = kilometre; ToR = Terms of Reference.





- LEGEND**
- 230 KV TRANSFORMER STATION (TS)
 - RAILWAY
 - LOCAL ROAD
 - SECONDARY HIGHWAY
 - WATERCOURSE
 - INTERNATIONAL BORDER
 - PRELIMINARY PROJECT FOOTPRINT
 - LOCAL STUDY AREA
 - REGIONAL STUDY AREA
 - FIRST NATIONS RESERVE
 - TREATY BOUNDARY
 - PROVINCIAL PARK
 - CONSERVATION RESERVE
 - WATERBODY



REFERENCE(S)
 BASE DATA COURTESY OF LAND INFORMATION ONTARIO MNR. IMAGERY COPYRIGHT © ESRI AND ITS LICENSORS. USED UNDER LICENSE, ALL RIGHTS RESERVED.
 PROJECTION: NAD 1983 CSRS UTM ZONE 15N

CLIENT
 HYDRO ONE NETWORKS INC.

PROJECT
 WAASIGAN TRANSMISSION LINE

TITLE
 FIRST NATION RIGHTS, INTERESTS AND LAND USE STUDY AREAS

CONSULTANT	YYYY-MM-DD	2023-09-19
	DESIGNED	CE
	PREPARED	DB
	REVIEWED	HK
	APPROVED	CS



PROJECT NO. 20137728 CONTROL 0042 REV. 1 FIGURE 7.7-1

PART 5 - Client/Industry/Consultant/Project/PRG-20137728/00 - File: Nulm_20137728-00-2-C-0009.mxd PRINTED ON: AT: 2:30:05 PM
 IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

7.7.7 Baseline Data Collection Method

Baseline data were collected for the 11 First Nation communities the Ministry of Energy identified to be consulted for the Project (refer to Section 4). As noted in Section 7.7.4, baseline data for First Nation rights, interests and land and resource use were collected through information provided directly by communities, including pre-existing data and IK gathered specifically for the Project. Additional baseline data were gathered through a review of publicly available sources relevant to the Project area and potentially affected First Nation communities. IK studies are still underway at the time of completing this assessment. For studies not received in time for inclusion in the Final EA, Hydro One has committed to considering information provided at a later date in the next decision-making, planning and design milestones as the information is received.

Methods for collection of this data are described in the following sections. Baseline data collection for Métis rights, interests and land uses is addressed in Section 7.8.

7.7.7.1 *Engagement and Indigenous Knowledge Studies*

Table 7.7-1 summarizes comments and questions received through calls, meetings or other engagement feedback related to the assessment of First Nation rights, interests and land use. Where engagement input included baseline information, that information is referenced in this section.

Current land and resource use by Indigenous peoples is influenced by traditional knowledge systems, which are cumulative, dynamic, and continually building on experience and adapting to change (Usher 2000). Knowledge of the land - traditional knowledge/traditional ecological knowledge (TK/TEK) - and how the land is used - traditional land and resource use (TLRU) - are both considered in this section, where provided by First Nations communities. The collection and documentation of information that describes these activities, areas and features is collectively in this report referred to as Indigenous Knowledge (IK). IK is a holistic body of communal knowledge containing information and records collected by Indigenous communities that is of social, economic, cultural, spiritual, and/or historical significance to its members. Much of this knowledge may have been passed on from generation to generation. Each Indigenous community has its own approach to collecting, recording, sharing, and using this knowledge.

IK information also helps to supplement, inform and/or validate the data gathered through western science techniques. Where shared, traditional ecological knowledge was provided to other technical disciplines for incorporation into their baseline, effects assessment and mitigation sections. The information provided was shared with technical disciplines in a manner respectful of the communities' preferences for data sharing. The traditional ecological knowledge each technical discipline wished to incorporate was shared back with the Indigenous community to validate the information and the way it was incorporated. TLRU information helps Hydro One understand the historic and current uses of land and resources for traditional purposes by Indigenous communities. TLRU shared by communities is incorporated into the assessment presented in this section to understand the potential for the Project to affect these



practices and identify mitigation, where applicable to reduce or avoid potential negative effects. Throughout the EA process, Hydro One has provided opportunities for First Nation communities to share IK and other information which generally followed these steps:

- Establish an IK framework and identify IK recorded by First Nation communities, where communities were asked to review their available IK information and the location of the Project's alternative routes to undertake a 'gap analysis' on the extent or currency of available data relevant to the Project;
- Receive community-led scoping for additional studies to fill any identified information gaps and prepare reporting, including community protocols for sharing and using IK;
- Provide resources or capacity required to collect, record and share IK;
- Engage with communities to discuss and understand the IK studies shared, including the study area, IK categories used, and protocols for use in the EA; and
- Provide opportunity for validation of information through review of the Draft EA Report.

Hydro One offered financial assistance through community-specific Capacity Funding Agreements (CFAs) to assist in the gathering and recording of IK and participation in other aspects of the EA process. CFAs were signed with a number of communities during the Terms of Reference (ToR) phase to complete the assessment of IK information available and/or required, and to develop a work plan and budget. CFAs were developed with all First Nation communities and organizations through the EA phase of the Project to advance participation. Several of the communities retained consultants to support the work needed to complete the IK studies. It is recognized that the ToR period overlapped the period of restriction on gathering during the COVID-19 pandemic, limiting the ability for in-person meetings to be conducted to advance knowledge sharing during that time.

Provincial agencies were kept apprised of fulfillment of the procedural aspects of consultation with each community and the progress of IK information gathering by each community through monthly meetings and regular reporting. Further details on engagement and the IK study development process with each community are summarized in Section 4. Hydro One fully respects those communities who choose not to share their IK. How they choose to participate in the EA process is discussed with the leaders of these communities through engagement activities.

Several IK studies and reports from First Nations communities were completed and provided to Hydro One in or prior to 2022. Additional information was shared in 2023 by Migisi Sahgaigan, Mitaanjigamiing First Nation, Lac des Mille Lacs First Nation and Fort William First Nation. Hydro One worked with these communities during the Draft EA review period to validate inclusion of IK into this assessment for submission of the Final EA Report. All IK studies will be



incorporated into the Project assessment and planning process as they are received from the communities. The information received to date from First Nations is as follows:

- *Traditional Knowledge, Land, and Resource Use Study for the Waasigan Transmission Line from Migisi Sahgaigan (Eagle Lake First Nation) (Migisi Sahgaigan 2022):*

The report provides an overview of traditional land use and activities and provides a general map of where activities and important cultural sites are located. It also provides Migisi Sahgaigan-specific valued components, criteria and indicators for consideration.

The information provided by Migisi Sahgaigan states that “members extensively use and occupy the lands and waters throughout the identified Study Area to exercise their Section 35 rights, and in some locations, these areas directly intersect with the proposed route alternatives” (Migisi Sahgaigan 2022).

In 2023, a confidential memo was shared identifying specific areas of concern. Generalized information from this memo was approved by the community for inclusion in the EA and is noted in Section 7.7.9. At the request of the community, the citation of this report has been kept confidential.

- *Waasigan Transmission Line Summary Report 2022 - Draft from Mitaanjigamiing First Nation (Mitaanjigamiing First Nation 2022):*

This report provides a background on the community, a values summary and overview. It includes maps of the study area marking areas where elders and community members hold knowledge and where cultural activities take place. The three primary concerns identified were environmental disturbance affecting local flora and fauna, protection of waterways and the inclusion of buffer zones, and cultural and spiritual adherence throughout the Project.

- *Waasigan Transmission Line Summary Report 2023 from Mitaanjigamiing First Nation (Mitaanjigamiing First Nation 2023):*

This report is the final version of the Draft report shared by the community in 2022. The report notes a more specific 10 km buffer zone of analysis of impacts is used in the report due to Hydro One’s release of a detailed preferred route. The report indicates Hydro One’s preferred route is adequate and imposes the least amount of disturbance to areas of importance for the community.

- *Waasigan Transmission Line Route Alternatives Assessment for Lac des Mille Lacs First Nation (Lac des Mille Lacs First Nation 2020).*

This report provides an analysis of the alternative routes and provides Lac des Mille Lacs First Nation’s route preference, including environmental and socio-economic values held by the community. Some of the assessment criteria and indicators chosen by Lac des Mille Lacs First Nation included moose aquatic feeding areas, moose late wintering areas, old growth forest, wild rice area, marten habitat planning range, moose habitat



planning range, caribou habitat planning range, and distance to Lac des Mille Lacs First Nation reserve lands.

Traditional Land Use Studies/Geospatial Development/ and Values and Rights Impact Assessment (“Studies”) Interim Report (Lac des Mille Lacs First Nation 2023) The 60-page summary was provided to Hydro One describing the impacts and potential impacts to Lac des Mille Lacs First Nation’s values in the local and regional study area.

- Information of culturally important sites shared with permission following interviews with land users by Fort William First Nation, Lac La Croix First Nation, Nigigoonsiminikaaning First Nation, Ojibway Nation of Saugeen, Seine River First Nation and Couchiching First Nation. Wabigoon Lake Ojibway Nation shared input on a general area to be avoided.
- Selected *Plants of Significance to Aboriginal People of Boreal Canada* determined to be relevant for the Project by Fort William First Nation (Anemki Wajiw 2023):

The document provides an extensive list of plants of significance to Indigenous peoples of boreal Canada edited for applicability to the study area through review by Fort William First Nation. The list includes Latin names, Botanical family names and growth habitats alongside vernacular name(s) and traditional names.

Hydro One recognizes that the collection and use of IK information is sensitive in nature and has been guided in its use by the First Nation communities who participate in information sharing. Several data agreements/IK protocols have been signed between Hydro One and the First Nations that outline how information can be used and shared for the purposes of the Project. These protocols have been followed in the completion of the EA and this section. Site-specific information has not been reported to maintain the confidentiality of this information.

These studies, along with comments heard through the engagement process were used to assess the effects of the Project, in partnership with western science findings of how the Project may affect the environment. In some instances, information provided on maps of sensitive and/or culturally important features, including land and resource use activity, did not provide enough information to be able to delineate specific land uses or features (e.g., wildlife harvesting, fishing). In these instances, the land use information was not differentiated as to type but was conservatively assumed to include all land use activities.

IK information gathering continues to be discussed with interested First Nation communities. Continued engagement and consultation provides the opportunity for communities to identify additional land and resource use information that could still be used to influence key Project decisions and design. Further IK input is expected from Fort William First Nation, Nigigoonsiminikaaning First Nation, Ojibway Nation of Saugeen, Lac La Croix First Nation, Lac Seul First Nation, Seine River First Nation, and Wabigoon Lake Ojibway Nation. Migisi Sahgaigan, Lac des Mille Lacs First Nation and Mitaanjigamiing First Nations continue to supplement the information shared to date with the evaluation of any concerns focussed to the Project footprint.



The following steps are followed when IK information is received through the EA process:

- Review the information for site-specific interactions with the Project footprint.
- Engage the contributing First Nation community to discuss the importance of identified information or sites to the community, and potential mitigation measures.
- Develop appropriate mitigation measures that respond to the proximity of the identified information or site(s) in relation the Project footprint and the nature of the site (e.g., hunting location versus camping site). Potential mitigation measures may include:
 - Detailed mapping, recording, flagging and avoidance of the location, where possible; and
 - In the event that avoidance of the site is not feasible, other alternatives would be discussed with the identifying Indigenous community. These may include implementation of mitigation measures to reduce the potential for direct or indirect effects on the site such as a change in construction methods or measures designed to reduce noise, scheduling of activities outside of periods when the site will be used by Indigenous land users, or adjustment of the design.
- Update relevant commitments and implementation documents, such as the Environmental Monitoring and Reporting Plan, for sites requiring non-standard mitigation.

7.7.7.2 Review of Publicly Available Information

Some of the First Nation communities involved in the Project have gathered information about land and resource use through occupancy studies, land use planning, or to satisfy the requirements of EAs for other proposed development.

Projects that had relevant information on land use and practice of rights included in public EA documentation from communities involved in the Project are:

- *Wataynikaneyap Power Phase 1 New Transmission Line Environmental Assessment* (Wataynikaneyap 2018):
 - This report contains some information on traditional land use relevant to the Project and includes information from Lac des Mille Lacs First Nation, Lac Seul First Nation, and Wabigoon Lake Ojibway Nation.
- *Treasury Metals Inc. Goliath Gold Project Environmental Assessment* (Treasury Metals Inc. 2018):
 - The Goliath Gold project is located 20 km east of the City of Dryden in close proximity to the Project footprint for the Waasigan Transmission Line. There were several comments about land use near Thunder Lake and Wabigoon Lake that are applicable within the LSA. Several of the same communities were consulted for this project



including Migisi Sahgaigan First Nation, Lac des Mille Lacs First Nation, Lac Seul First Nation, Wabigoon Lake Ojibway Nation and Grand Council Treaty #3.

- *NextBridge East-West Tie Transmission Line Environmental Assessment* (NextBridge 2018):
 - This report contains a description of traditional land use relevant to Fort William First Nation.

7.7.8 Description of the Existing Environment

This section summarizes the available information regarding First Nations rights, interests and land use in relation to the study areas defined in Section 7.7.6. Available information regarding data collection for Métis rights, interests and land use is addressed in Section 7.8. A review of the available information indicates that the study areas have historically, and continue to be, accessed, and used by First Nations peoples for traditional activities, such as hunting, trapping, fishing, plant gathering, and other cultural uses, such as meeting places and knowledge transfer. Some general baseline information regarding land and resource use and cultural sites and practices of First Nations has been provided in this section. Information attributable to specific First Nation communities is identified and sourced where noted.

Within the study areas for this assessment, the lands that comprise traditional territory for identified First Nations have been used by Indigenous people for trapping, hunting, gathering, ceremony, trade and socializing preceding European contact (Grand Council of Treaty #3, 2023); practices that continue to this day. Section 7.5 of the archaeological assessment presents a summary of regional history including pre-contact Indigenous history. In many cases, the locations of archaeological sites from which archaeological evidence is derived are connected to areas of past and current traditional land and resource use.

Indigenous peoples live, work, hunt, fish, trap, and gather throughout their traditional lands and rely on these lands for their individual, as well as their community's, overall cultural, social, spiritual, physical, and economic wellbeing. These activities take place throughout the year and are not bound by provincial harvest seasons and regulations. Ecologically important areas, such as calving or fish spawning areas, are important to land and resource users due to their role in producing the harvested resources. These harvested resources and lands are inextricably connected to a community's shared identity and culture. It is recognized that the relationship between Indigenous communities and their lands is a symbiotic one and the health of the community is tied to the health of the land. As such, what happens to lands in relation to past, current and future land use, ecosystems, and sustainability is of fundamental importance to the communities.

The IK study shared by Mitaanjigamiing First Nation reflects that "Community members engage in an array of outdoor, land-based activities across wide expanses of the land that extend past the politically constructed reserve boundaries, including hunting, trapping, fishing, and harvesting. Many members travel across the land to visit the traditional spots their families have



frequented since time immemorial to tend their traplines, set nets, and collect traditional medicines (Mitaanjigamiing First Nation, 2022).”

7.7.8.1 Access to Resources

Transportation pathways and features (e.g., trails and waterways) have historically been, and continue to be, used to access lands for traditional use by First Nations peoples, both within and beyond the area of the Project. Waterways in the region are travelled by Indigenous and non-Indigenous community members and historic portage points represent important locations to this day.

Input shared through IK studies and comments on the Draft EA highlight the importance of protecting waterbodies in general, and including specific waterbodies important to communities for travel, as well as important terrestrial trails.

The following paragraphs highlight information shared by communities, or documented in relevant reports to date:

Fort William First Nation: The community has undertaken specific studies on the Project footprint, not yet available to be shared with Hydro One; however, it was shared that areas of fishing, hunting, harvesting berries and medicines are accessed that may occur within the LSA.

Migisi Sahgaigan (Eagle Lake First Nation): The Migisi Sahgaigan report states that Indigenous Ecological Knowledge informs and supports their harvesting practices, and overnight and access features like trails and campsites allow community members to move throughout the Nation’s traditional territory for purposes related to traditional land and resource use (Migisi Sahgaigan 2022). Overnight and access sites were a category of information present within the RSA. In the report provided by Migisi Sahgaigan it was expressed that potential Project effects through reduced access to harvesting areas used by community members is of concern (Migisi Sahgaigan 2022).

Further information provided by Migisi Sahgaigan indicates that the preferred route ROW crosses a traditional water access route south of Dinorwic, where use is focused to the open water period (mid to late April to early to mid November).

Lac des Mille Lacs First Nation: Lac des Mille Lacs First Nation has documented use of the area with community members through interviews with several families who use the area for hunting, fishing, trapping, and harvesting. The First Nation has expressed concern regarding access to lands where traditional activities take place, especially during construction. Lac des Mille Lacs First Nation has recorded several historical (and current) travel routes used by community members throughout the area, some of which cross the Project footprint. The First Nation would like travel routes to remain passable, which includes areas that are accessed by watercraft as these areas should not be impeded by culverts or low bridges. The ability to access resources as well as the health and populations of those resources can have a significant impact on the livelihoods of community members.



Mitaanjigamiing First Nation: The Mitaanjigamiing First Nation's IK report states that "waterways are an integral and vital aspect of traditional and current land use practices of people for the First Nations Communities" (Mitaanjigamiing First Nation 2022). As well, the community shared that "community members engage in an array of outdoor, land-based activities across wide expanses of the land that extend past the politically constructed reserve boundaries, including hunting, trapping, fishing, and harvesting. Many members travel across the land to visit the traditional spots their families have frequented since time immemorial to tend their traplines, set nets, and collect traditional medicines. The proposed transmission line is approximately 100 km east of Mitaanjigamiing First Nation, but this land and its lakes and rivers are still broadly used by the community and holds significant cultural heritage value". While traditional knowledge shared by the community includes areas overlapped by the Project north of Atikokan, no specific features of concern including access were identified within the LSA (Mitaanjigamiing First Nation 2023).

Seine River First Nation: During a community engagement meeting in November 2022, a community member expressed interest in receiving a latitude/longitude coordinate where the Project footprint crosses the Turtle River-White Otter Lake Provincial Park to be able to understand more about how the Project would cross the river at that location.

Wabigoon Lake Ojibway Nation: In the Goliath Gold EA Report, Wabigoon Lake Ojibway Nation identified Thunder Lake as a traditional canoe route to Rice Lake (Treasury Metals Inc. 2018).

Section 7.1 Land and Resource Use characterizes publicly documented trails that may also be used by Indigenous community members for harvesting or cultural practices. The Project footprint transects seven OTN trails (for 3.1 km) and 105 non-OTN trails (for a combined 157.3 km). The majority of OTN trails in the Project footprint are for hiking or walking, cycling, crossing country skiing (1.2 km) and paddling (1.1 km), while the majority of non-OTN trails include snowmobile (47.1 km), ski (5.8 km), bike (1.5 km), and resource user trails (8.1 km). Snowmobile trails in the Project footprint are managed by snowmobiling groups who are members of the Ontario Federation of Snowmobile Clubs (OFSC). Canoe routes extending through Ontario Parks are managed by the MNRF. Approximately 71.4 km of non-OTN trails are defined as "other" in the Project footprint, where usage is undefined by MNRF.

Baseline characterization was completed for water crossings to identify the waterbodies that are expected to be crossed by the Project footprint. The list is discussed in Section 6.0 and the full list of waterbody crossing locations is provided in Table A-1 of Appendix 6.2-B and is available in Section 6.5.2.1. There are several navigable waterways used for boating, kayaking and canoeing.



7.7.8.2 Wildlife Harvesting

Trapping

Traplins used by First Nation harvesters are licensed by the MNRF to harvest furbearing mammals for commercial or personal use, and may be located on private or Crown lands. A variety of animals are harvested including beaver, muskrat, otter, fisher, marten, mink, weasel, raccoon, skunk, opossum, fox, flying squirrel, red squirrel, snowshoe hare, wolverine, lynx, bobcat, wolf, and coyote. Trapping activities are known to be practiced by First Nation community members within the RSA, commonly within areas of Crown land including within provincial parks (Mitaanjigamiing First Nation 2022) (MECP 2021) (Migisi Sahgaigan 2022). Lac des Mille Lacs First Nation shared that “when Quetico Provincial Park was first established there was conflict between park wardens and the Indigenous People who used the park for trapping and living. Trapping was outlawed in the park at the time of its establishment. Indigenous people who lived there were forced to leave the park (some at gunpoint) at the time of the park’s creation. There are many Indigenous families (from Lac des Mille Lacs First Nation as well as other First Nations) who can trace their history to Quetico Provincial Park. After some time, Indigenous trappers were once again able to legally trap in the park, however, access to resources in Quetico Provincial Park has been difficult since the park’s establishment”.

Trapping begins in the fall in October and continues through the winter into February depending on the species. Furbearers, such as beaver, marten and muskrat, are trapped primarily for fur during this period. Other species, such as rabbit, which are primarily trapped for food, are less dependent on the season (Wataynikaneyap 2018).

Hunting

There are several species important for harvesting for First Nations, including caribou, moose, deer, grouse, waterfowl and furbearers, such as rabbit. The habitat associated with moose, deer, waterfowl, and furbearers is common in the LSA and RSAs. Moose and deer hunting primarily takes place in the autumn from late September through to early December although occasionally a moose will be taken in other seasons if food is needed. Duck hunting primarily takes place in the spring and autumn while grouse are hunted in the autumn from September through December.

The following highlights additional context shared by communities or documented in relevant reports to date:

Fort William First Nation: The East-West Tie EA Report records that Fort William First Nation’s “traditional winter hunting and trapping grounds extended ... west to Lake Nipigon, north to what is now Wabakimi Park, and south along the border to Lac des Milles Lacs” (Fort William First Nation 2017). “During an open house for the Project, a Fort William First Nation member reported that the majority of Fort William First Nation land use extends from Thunder Bay southward and westward to the United States border. Moose are the most popular animal hunted by Fort William First Nation members (Woodland Heritage Services Ltd. 1999; Greenmantle Forest Inc. 2007b). Fort William First Nation has also reported that community



members have many traplines throughout their traditional territory (Energy East Pipeline Ltd. 2016c).” (NextBridge 2018).

Migisi Sahgaigan (Eagle Lake First Nation): In the report provided by Migisi Sahgaigan it was expressed that potential Project effects to decrease the availability of wild foods for Migisi Sahgaigan First Nation harvesters, including but not limited to moose, wild rice, fish, and berries in the Study Area is of concern (Migisi Sahgaigan 2022). The community also raised concern about the potential to compound existing issues related to the decline in moose populations throughout Migisi Sahgaigan First Nation traditional territory.

IK shared by Migisi Sahgaigan indicates access roads overlap known moose habitats, movement corridors and hunting areas, as well as deer hunting areas. Further information shared, notes that the right of way and an access road cross an area used for commercial trapping of muskrat and beaver east of Wabigoon Lake. Additional IK shared notes existing access north of Dinorwic is adjacent to an area used for bait fishing.

Lac des Mille Lacs First Nation: In the IK information shared by the community, it is noted that within the RSA trapping by First Nation community members has taken place throughout Lac des Mille Lacs First Nation’s Traditional Territory. Marten and beaver are the preferred commercial species today amongst community members. Species that are used as food as well as fur include snowshoe hares, muskrat, and beaver. Trapping locations are only location specific while conditions are favorable for the targeted species. Trapping locations can vary from year to year and from decade to decade. The IK information shared notes that a Lac des Mille Lacs First Nation’s trapper stressed the importance of maintaining a balanced variety of habitats to help animal populations remain at stable levels and that protecting wetlands, riparian areas, and old growth is important, where concerns were expressed about potential for herbicide runoff to affect water quality. Another Lac des Mille Lacs First Nation’s trapper expressed concern that trappers are not compensated when industrial activities impact animal populations on traplines.

Lac des Mille Lacs First Nation also shared that “trapping in the RSA amongst members of Lac des Mille Lacs First Nation has declined in the last 20 years in certain areas due to privatization of land, colonization, decline in the fur market, and government regulations. Market price for furs has significantly decreased and has made it virtually impossible to make a living off trapping today, which is unfortunate because fur (when harvested sustainably) is a renewable resource. Government regulations have also had a significant impact on trapping as a way of life for First Nation membership. As an Elder from Lac des Mille Lacs First Nation explained, it is easy to forget that humans too are a part of the ecosystem, and not separate from it. Humans can play a vital role in the balance of the ecosystem. Information that is derived from trappers can be a good tool to measure the health of ecosystems and the species that depend on them”.

IK study findings shared that moose are an important source of sustenance for many Lac des Mille Lacs First Nation families who use the LSA and RSA for hunting. Community members have identified 3 areas where moose travel corridors cross the Project footprint, with one area also overlapping with a planned helipad area.



Lac La Croix First Nation: The Quetico Provincial Park management plan documents that there are 34 registered traplines, operated by members of the Lac La Croix First Nation, that are located wholly or partially within park boundaries (MECP 2021).

Mitaanjigamiing First Nation: In the report from Mitaanjigamiing First Nation, hunting and trapping are activities identified in the RSA. It was shared that “interviewed community members also spoke about the problems that could arise if any lakes or waterbodies are drained or otherwise disturbed during the construction of the transmission line. Elder [name redacted] recalled that a lake in proximity to a community member’s trapline was drained as part of a past development project, which impacted the member’s ability to fully utilize his trapline.” Areas of trapping, hunting, fishing and harvesting were recorded within the RSA, but no specific features of concern were identified within the LSA (Mitaanjigamiing First Nation 2023).

Nigigoonsiminikaaning First Nation: shared with Hydro One a mapped area of moose habitat within the RSA. This area is not overlapped by the LSA.

Section 7.1 Land and Resource Use characterizes the study areas including the Project footprint relative to Provincial Land Use policy areas, and characterizes hunting and trapping activities regulated through the *Fish and Wildlife Conservation Act, 1997*. The unpatented Crown Land crossed by the Project footprint is 3,845.5 ha. There are ten Wildlife Management Units (WMUs) in which hunting activities take place by MNRF licenced harvesters that intersect the Project footprint. The number of hunters and the quantity of moose, deer and bear that are harvested, are described. Similarly, this section summarizes the presence of MNRF licenced trappers and notes that there are approximately 28 trapping licenses (regular registered licenses) and 20 structures located within the 46 trapline licence areas in the Project footprint. The MNRF does not make individual trapline tenure or harvest information publicly available.

7.7.8.3 *Fish Harvesting*

First Nations community members harvest fish within the watercourses and waterbodies in the LSA and RSA. Species that have been highlighted as culturally important through feedback on the 2022 Field Workplan shared by Grand Council Treaty #3, included: whitefish, walleye, muskie, sturgeon, and trout species.

All water crossings were identified as being important to First Nation communities, with specific water crossings including water crossings between Atikokan and Dryden and within the Turtle River-White Otter Provincial Park identified as areas of interest.

The following highlights harvesting information shared by communities, or documented in relevant reports to date:

Fort William First Nation: The East-West Tie EA Report records that “fish were considered a staple and central to the community of Fort William First Nation, and community members continue to fish for subsistence and trade purposes” (NextBridge 2018). Lake trout, salmon, walleye, and pike were fished for in Lake Superior and fishing areas were identified at Dog Lake. These areas are south and north of the Project area, respectively. The community has



undertaken specific studies on the Project footprint, not yet available to be shared with Hydro One; however, it was shared that areas of fishing occur within the LSA, including in an area of Lake Shebandowan.

Migisi Sahgaigan (Eagle Lake First Nation): In the report provided by Migisi Sahgaigan it was expressed that potential Project effects to fishing is of concern (Migisi Sahgaigan 2022). Fish species harvest locations recorded in previous studies have included walleye, trout, jackfish/northern pike, bass, and suckers.

IK shared by Migisi Sahgaigan indicates the Project footprint between Atikokan and Dryden crosses areas where walleye, sucker, pike and pickerel are known to spawn and notes that existing access north of Dinorwic is adjacent to an area used for bait fishing. The IK information notes the location of the ROW and access roads upstream of Dinorwic Lake are in proximity to an area of extensive fishing and fish spawning areas for many fish species. Spring and fall are both important times for fishing.

Lac des Mille Lacs First Nation: Lac des Mille Lacs First Nation maintains a spatial dataset of IK information within the community's traditional territory. Within the types of data recorded, fish harvest areas, important habitat areas such as spawning and information of specific fish including Bass, Brown Trout, Burbot, Chinook Salmon, Lake Trout, Muskellunge, Perch, Pickerel, Pike, Pink Salmon, Rainbow Trout, Rainbow Smelt, Smelt, Speckled Trout, Splake, Sturgeon, Walleye, Whitefish, and Whitesucker. The community's specific studies on the Project footprint identify a number of areas important to fishing, removed from the Project footprint. The importance of protecting water quality for rivers and lakes crossed by the Project is identified. Additional information on aquatic systems within the region shared by Lac des Mille Lacs First Nation will continue to support the development of plans applicable to the Project.

Mitaanjigamiing First Nation: Fishing activities are identified within the RSA, and potentially within the LSA (Mitaanjigamiing First Nation 2022). The community IK report noted that caution should be taken near Atikokan Lake, as an important fishing location (Mitaanjigamiing First Nation 2023).

Seine River First Nation: During a community engagement meeting in November 2022, a community member expressed interest in receiving a latitude/longitude coordinate where the preliminary Project footprint crosses the Turtle River-White Otter Lake Provincial Park to be able to understand more about how the Project would cross the river at that location.

Section 7.1 Land and Resource Use characterizes fishing activities in the region within the MNRF regulation structure, describing each of the Fish Management Units (FMUs) crossed by the Project in more detail, including waterbodies and watercourses and timing windows for harvest outside of the practice of Section 35 rights. Harvested species within FMU's crossed by the Project that have timing windows listed are Brown Trout, Crappie, Lake Sturgeon, Lake Trout, Lake Whitefish, Largemouth and Smallmouth Bass, Muskellunge, Northern Pike, Rainbow Trout, Splake, Sunfish, Walleye and Sauger and Yellow Perch.



In Section 6.6 Fish and Fish Habitat, provides background data and field surveys undertaken for the Project that have been used to characterize the fish and fish habitat present within the study areas, including features crossed by the Project footprint. Lake trout, brook trout, northern pike, and walleye were chosen as indicator species to be assessed. These species were chosen due to their ecological, Indigenous, and socio-economic importance. Walleye, northern pike, and brook trout are documented in the southern and northern portions of the Fish and Fish Habitat RSA. Lake trout are documented in the lakes and larger watercourses throughout the Fish and Fish Habitat RSA and LSA.

This assessment identifies that there are 830 waterbodies crossed by the ROW and access roads (Table 6.6-5). Most water crossings along the Project footprint are watercourses (i.e., 161 within the ROW and 245 along access roads). Most of the remaining crossings are lakes/ponds (i.e., 76 within the ROW and 40 along the access roads). Based on the field survey, 31 ROW crossings and 56 access road crossings did not have defined bed or banks (i.e., there was no channel present). No background or field data were available for the remainder of the crossings (i.e., 47 ROW and 174 access road crossings). A large proportion of the crossings in both the ROW (i.e., 214) and the access roads (i.e., 237) were determined to have permanent flow regimes.

Fish habitat potential was determined for most of the crossings assessed (i.e., 248 within the ROW and 314 along access roads). Sixteen waterbodies are known to provide spawning habitat at or near the vicinity of the crossing for Walleye, Lake Trout, or undefined species (Dillon 2020, Dryden Forest Management Company 2016, Greenmantle Forest Inc. 2020, MNRF 2022). Potential spawning habitat was observed at 128 crossings in October 2020 and from June to September 2022 (Appendix 6.6A). No known nursery areas were identified in background data, although field surveys identified 111 potential nursery areas (Appendix 6.6A). No SAR critical habitats were mapped by Fisheries and Oceans Canada (DFO) within the LSA (DFO 2022).

7.7.8.4 Plant and Material Harvesting

Within the RSA there are plant species of cultural importance, including timber, wild rice, berries, mushrooms, and medicines. Plant species may be collected for sustenance, cultural or medicinal purposes. The quarrying or collection of minerals in the RSA, such as red rock for cultural items such as pipes, was also recorded during engagement.

As part of botanical surveys, the presence of some traditional use plant species was documented included Labrador tea (“mashkiigobag/oon, mashkiikaang niibiish, waabashkikiibag”), paper birch (“wiigwaas (-an) (-ag), wiigwaasaatig/oog, wiigwaasi-mitig, wiigwaasimizh”), eastern white cedar (“kiizhig, giizhik/oog, gizhikens giizhikaandag/oog”), and various grasses including wild rice (“manoomin, manoominaatig/oon, manoominashk/oon”) and sweet grass (“mishkosiiwiingoshk”). Habitat for these species is confirmed to be present within the LSA. Accordingly, it is likely that some areas of plant and material harvest will be affected by the Project. Similarly, in the immediate vicinity of the Project footprint, new habitat for plants may be created.



Information related to traditional use plants was obtained from IK studies, engagement with Indigenous communities and background resources. An extensive list of traditional use plant species was provided by Fort William First Nation and compared with lists noted by other Indigenous communities. The full list in Appendix 6.4-D includes plants of significance for Indigenous people in boreal Canada edited by Fort William First Nation to include areas applicable to the Project study areas. Species which were identified as a traditionally important by more than one Indigenous community have been highlighted in the Vegetation and Wetlands section (Section 6.4.5.2.6) and are noted in the list below. These plants use habitat within the upland, wetland and riparian areas known to occur within the RSA, LSA and the Project Footprint:

- Eastern white cedar;
- Beaked hazelnut (*Corylus cornuta*);
- Paper birch;
- Showy mountain ash (*Sorbus decora*);
- Chokecherry (*Prunus virginiana*);
- Chaga (*Inonotus obliquus*);
- Common bearberry (*Arctostaphylos ura-ursi*);
- Early lowbush blueberry (*Vaccinium angustifolium*);
- Highbush cranberry (*Viburnum opulus*);
- Labrador tea (*Rhododendron groenlandicum*);
- Sage (*Artemisia frigida*);
- Saskatoon berry (*Amelanchier alnifolia*);
- Canada wild ginger (*Asarum canadense*);
- Common yarrow (*Achillea millefolium*);
- Pin Cherry (*Prunus pennsylvanica*);
- Prickly rose (*Rosa acicularis*); and
- Various grasses, including sweetgrass (*Hierochloa odorata*) and wild rice.

The following highlights Information shared by communities, or documented in relevant reports to date:



Couchiching First Nation: Information on traditional knowledge features including general areas of harvest for medicinal plants, as well as areas of wild rice harvest of significance to Couchiching First Nation were shared with Hydro One, located outside of the RSA. Within the Turtle River–White Otter Lake Provincial Park Plan, it is noted that “areas of wild rice in the vicinity of Jones Lake and Eltrut Lake are presently licenced to Couchiching First Nation for commercial harvesting. Existing commercial wild rice harvesting by First Nations may continue indefinitely” (MECP 2021b).

Fort William First Nation: As noted, the community has undertaken specific studies on the Project footprint, not yet available to be shared with Hydro One; however, it was shared that areas of harvesting berries and medicines may occur within the LSA. As well, provision of the list of plants shared in Appendix 6.4-D demonstrate the importance of these resources to the community within the wider region.

Migisi Sahgaigan (Eagle Lake First Nation): Migisi Sahgaigan has expressed that the Project may decrease the availability of wild foods for Migisi Sahgaigan harvesters, including, but not limited to, moose, wild rice, fish, and berries, the safety of wild foods including berries and plants in proximity to the proposed ROW, and concerns that the Project could compound existing pressures on the ecosystems where wild rice grows (Migisi Sahgaigan 2022).

Information provided by Migisi Sahgaigan indicates that the ROW and access roads near Thunder Lake overlap and are close to an important high use area (including cultural and gathering sites). Migisi Sahgaigan has also noted that the Project footprint between Atikokan and Dryden overlaps areas where plants including red willow and sage are harvested in the spring and summer and where blueberry and sage are harvested in the spring and fall.

Additional IK shared by Migisi Sahgaigan indicates the ROW overlaps important wild rice areas accessed in spring and fall southeast of Thunder Lake and near Dinorwic.

Lac des Mille Lacs First Nation: Lac des Mille Lacs First Nation maintains a spatial dataset of IK information within the community’s traditional territory. Lac des Mille Lacs First Nation shared that “it is important to acknowledge that all species are equally important. The plants below are identified as special importance as they are the plants most frequently used by community members at this time. The effects of colonialism had and continue to have a direct impact on the sharing of indigenous knowledge and use of plants. The Lac des Mille Lacs community is working hard to preserve traditional plant use knowledge by documenting plant usage”. Within the types of data recorded, more than 50 plant species are represented including berries, mushrooms, flowers, tree products and other medicinal plants. Plants of traditional use found in the RSA shared by Lac des Mille Lacs First Nation include: birch, cedar, maple (sugar or red), beaked hazelnut, blueberries, choke cherries, pin cherries, highbush cranberries, bog cranberries, raspberries, saskatoons, thimbleberries, bearberry, bunchberry, creeping snowberry, great mullein, Canada goldenrod, Labrador tea, yellow pond lilly, buffalo berries, cattails, wild ginger, wiike, sage, sweetgrass, wild rice, lobster mushroom and chaga.



A field monitor participating from the community in field surveys shared knowledge on plants observed, including barberry and its medicinal and dietary uses, as well as observing the presence of wild ginger as a rare and traditionally used plant.

In proximity to the Project footprint, the community identified a number of areas important to plant and medicine collection, including beaked hazelnuts, blueberries, choke cherries, pin cherries, highbush cranberries, raspberries, saskatoons, sage, wild rice (historically) and pine cones. Rare plants observed by community members in area of the Project include medicinal Chaga mushroom as well as the lesser fringed gentian (*Gentianopsis virgate*) (Lac des Mille Lacs First Nation 2023).

Mitaanjigamiing First Nation: Mitaanjigamiing First Nation Elders raised some concerns that the Project will impact blueberry harvesting areas (Mitaanjigamiing First Nation 2022). An area of harvesting was recorded within the RSA, but no specific features of concern were identified within the LSA (Mitaanjigamiing First Nation 2023).

Nigigoonsiminikaaning First Nation: Nigigoonsiminikaaning First Nation shared a map with Hydro One indicating wild rice habitat areas within the RSA. One area is overlapped by the LSA. The community is continuing specific studies on the Project footprint to confirm any potential areas of concern.

Seine River First Nation: During a community engagement meeting in November 2022, a community member identified the collection and use of red rock used for pipe making. Harvest sites were identified to be removed from the LSA of the Project footprint, and potentially outside of the RSA.

Wabigoon Lake Ojibway Nation: Within the Turtle River–White Otter Lake Provincial Park Plan, it is noted that “areas of wild rice in the vicinity of Jones Lake and Eltrut Lake are presently licenced to Wabigoon Lake First Nation for commercial harvesting. Existing commercial wild rice harvesting by First Nations may continue indefinitely” (MECP 2021b). The Butler Lake Provincial Park management plan also notes that Wabigoon Lake Ojibway Nation “harvests wild rice from the creek draining Butler Lake into Wabigoon Lake” (MECP 2021c).

Section 6.4 Vegetation and Wetlands characterizes ecosystem availability, distribution and composition within the Project footprint for traditional use plant species examples.

7.7.8.5 *Culturally Important Sites and Cultural Heritage*

Cultural activities and practices and sacred sites may occur or be present throughout the study area for the Project. Specific sites, such as cabins and camps that now provide or historically provided shelter while conducting traditional activities throughout a community’s traditional territory, meeting and ceremony places and other sacred sites, such as burial sites, are important to document and avoid for Project development activities. Where information shared by communities indicates areas of importance without further definition of the type of use occurring at a given location (e.g., may be used for access, harvesting and/or other cultural activities and practices), these are all identified in this assessment to be culturally important



sites. For example, where IK studies are shared, some of the information provided is confidential to protect the locations and sensitivity of certain sites and impacts.

The following highlights information shared by communities, or documented in relevant reports to date:

Couchiching First Nation: Information on traditional knowledge features including burial sites, significant and sacred areas of significance to Couchiching First Nation were shared with Hydro One. These areas are located near the community and outside of the RSA.

Fort William First Nation: The East-West Tie EA Report records the presence of cultural sites to the south of the RSA along Lake Superior, in the Loch Lomond area and north of the RSA at Dog Lake (NextBridge 2018). As noted, the community has undertaken specific studies on the Project footprint, not yet available to be shared with Hydro One. Beyond the presence of harvest sites within the LSA described in the preceding sections, specific cultural sites in the vicinity of the Project have not been shared.

Migisi Sahgaigan (Eagle Lake First Nation): In the report provided by Migisi Sahgaigan it was expressed that “cultural sites, such as burial sites, ceremonial, spiritual, and sacred sites are a critical piece of Migisi Sahgaigan connection to the lands and waters that are often tied to harvesting practices of community members” (Migisi Sahgaigan 2022). As well, concerns were expressed and documented related to the potential for disturbances to cultural and archaeological sites throughout Migisi Sahgaigan traditional territory, the potential for loss of knowledge transfer and cultural continuity through a reduced ability to harvest or exercise Section 35 rights, and/or the potential for a decline in community well-being that could result in changes to community dynamics and social cohesion (Migisi Sahgaigan 2022).

Information provided by Migisi Sahgaigan indicates the ROW crosses a traditional water access route south of Dinorwic and notes the proposed ROW is in the vicinity of a known burial site in the section of the line connecting Atikokan and Dryden. The IK shared also notes that the ROW and access roads near Thunder Lake overlap and are close to an important high use area (including cultural and gathering sites). As well, an existing access road crosses an area with high archeological potential east of Wabigoon Lake; no improvements are proposed.

Lac des Mille Lacs First Nation: Lac des Mille Lacs First Nation provided comments on the draft Terrestrial Field Work Plan (provided to Indigenous communities for review on March 22, 2022) identifying a proposed turtle field survey location as a sensitive area to be avoided in further studies. Lac des Mille Lacs First Nation maintains a spatial dataset of IK information within the community’s traditional territory. Within the types of data recorded, a number of types of cultural sites and features are identified. Lac des Mille Lacs First Nation provided their “Traditional Land Use Studies/Geospatial Development/ and Values and Rights Impact Assessment (“Studies”) Interim Report” to be reflected in this assessment. Some of the information provided is held confidential to protect the locations and sensitivity of certain sites and impacts. The community’s specific studies on the Project footprint did identify a culturally



sensitive burial ground crossed by the Project footprint, as well as other burial sites, sacred areas and occupancy sites of cultural importance within the LSA.

Lac La Croix First Nation: The Quetico Provincial Park Management Plan reflects a “relationship between the Lac La Croix First Nation and the land base known as Quetico Provincial Park, which is regarded by the First Nation as sacrosanct, while acknowledging the wilderness values of this Park policy” (MECP 2021a). The plan comments on the presence of pictographs, archaeological encampment sites, and burial sites and that Lac La Croix First Nation is assured power boat and aircraft access to resources for spiritual and cultural purposes.

Mitaanjigamiing First Nation: Within their IK study, Mitaanjigamiing First Nation identified a number of sacred or birth sites within the RSA to be avoided (Mitaanjigamiing First Nation 2022). None are located within the LSA. Participants in the IK study shared that one main concern was the Project maintaining respect for the land and for culturally significant practices, including “holding appropriate ceremonies and offering tobacco to bless the land, as well as avoiding and protecting all burial sites” (Mitaanjigamiing First Nation 2022). Within their 2023 IK report update, Mitaanjigamiing First Nation shared information three cultural areas to be avoided, which are within 10 km of the Project, but all located outside of the LSA boundaries.

Nigigoonsiminikaaning First Nation: Nigigoonsiminikaaning First Nation shared mapping with Hydro One during the alternative route evaluation identifying an area with a burial site that should be avoided during route selection, as well a high-use area in the RSA. These sites are not located within the LSA.

Wabigoon Lake Ojibway Nation: Wabigoon Lake Ojibway Nation provided comments on the draft Terrestrial Field Work Plan (provided to Indigenous communities for review on March 22, 2022) reflecting both cultural protocols required for field work within the area of their traditional territory and identifying one section of the Alternative Route 3B as culturally sensitive. Based on this feedback, a community-led ceremony was conducted. All field staff working within the traditional territory of Wabigoon Lake Ojibway Nation completed the community’s cultural awareness training. In addition, field study schedules were modified based on availability of field monitors from Wabigoon Lake Ojibway Nation, which provided better opportunities for Wabigoon Lake Ojibway Nation field monitors to be present for the field work completed within its traditional territory. In addition, field activities were not undertaken within the area identified as culturally sensitive at the request of the community. A high degree of concern was also identified by Wabigoon Lake Ojibway Nation related to a proposed camp location based on its close proximity to White Otter Lake related to potential for cultural features or burial sites in this area.

Cultural sites and landscapes that have been previously identified are discussed in Sections 7.5 Archaeological Resources and 7.6 Built Heritage Resources, which also includes sites and landscapes of importance to First Nation communities.



Provincial parks and conservation reserves delineated within the region are located in areas with features of value to Indigenous communities. As reported in Section 7.1 Land and Resource Assessment, two provincial parks, the Turtle River-White Otter Lake Provincial Park and Quetico Provincial Park, include small areas that are intersected by the Project footprint.

Removed from the areas intersected by the Project footprint, cultural heritage values identified within parts of the Quetico Provincial Park include pictographs, archaeological encampment sites, and burial sites (MECP 2021a). Cultural heritage values linked to Indigenous heritage identified within parts of Turtle River-White Otter Lake Provincial Park includes 39 archaeological sites, and 37 pictograph sites (MECP 2021b). Wabigoon Lake Ojibway Nation, Lac La Croix First Nation, Seine River First Nation, Lac des Mille Lacs First Nation, Nigigoonsiminikaaning First Nation and Couchiching First Nation are located in close proximity to Turtle River-White Otter Lake Provincial Park. The park management plan says “As the glaciers retreated, Aboriginal people moved into the area in small nomadic groups, occupying different seasonal habitation sites to gather, hunt and fish. The discovery of pictographs, lithic flakes and pottery shards from the Laurel and Blackduck cultures document this use. Tobacco offerings, frequently observed at some of the pictograph sites, suggest that these areas remain significant to the contemporary First Nations people”. (MECP 2021b). The Campus Lake Conservation Reserve also intersects the Project. Cultural values are redacted from the Campus Lake Conservation Reserve management plan to protect sensitive information.

During engagement, First Nation communities described a sacred connection to the land, the water and rocks, and fulfill an inherent role to protect the environment for future generations. This connection speaks to the intangible cultural heritage component of this assessment. Through IK studies and engagement feedback, concerns were raised regarding potential for changes in the quality of experience/sense of place in areas of use for traditional purposes, including areas of harvesting or other cultural practices.

7.7.9 Potential Project-Environment Interactions

Potential Project interactions were identified through a review of the Project Description and existing environmental conditions. The linkages between Project components and activities and potential effects to First Nations Rights, Interests and Use of Land and Resources are identified in Table 7.7-4.



Table 7.7-4: Project-Environment Interactions for First Nations Rights, Interests and Use of Land and Resources

Criteria	Indicator	Project Phase Construction (includes access road and ROW preparation, installation, and reclamation activities)	Project Phase Operation (includes operation and maintenance activities)	Description of Potential Project-Environment Interaction
Traditional Use of Land and Resources	Area (ha) of unoccupied Crown land being converted to occupied Crown land.	✓	✓	Construction, operation, and maintenance of the Project footprint could result in unoccupied Crown land being converted to occupied Crown land.
Traditional Use of Land and Resources	Availability of harvested resources (considering outcomes of assessments for wildlife, vegetation, fish), including sensory disturbance through Project-related changes to air quality, acoustics, and visual landscape.	✓	✓	Construction, operation, and maintenance of the Project could affect the availability of harvested resources (e.g., wildlife, fish and plants), including sensory disturbance.
Traditional Use of Land and Resources	Access (increased or decreased) to preferred harvesting areas (hunting, trapping, fishing, and plant harvest).	✓	✓	Construction, operation, and maintenance of the Project could affect access to preferred harvesting areas.
Cultural Landscapes and Intangible Cultural Heritage	Access to culturally sensitive, sacred or spiritual landscapes and sites.	✓	✓	Construction, operation, and maintenance of the Project could affect access to culturally sensitive, sacred or spiritual landscapes and sites.

Criteria	Indicator	Project Phase Construction (includes access road and ROW preparation, installation, and reclamation activities)	Project Phase Operation (includes operation and maintenance activities)	Description of Potential Project-Environment Interaction
Cultural Landscapes and Intangible Cultural Heritage	Quality of experience/sense of place in areas of use for traditional purposes, including sensory disturbance through Project-related changes to air quality, acoustics, and visual landscape.	✓	✓	Construction, operation, and maintenance of the Project could affect quality of experience/sense of place in areas of use for traditional purposes, including sensory disturbance.

Note: ✓ = A potential Project-environment interaction could result in an environmental or socio-economic effect; _ = No plausible interaction was identified.

7.7.10 Potential Effects, Mitigation Measures, and Net Effects

The linkages between Project components and activities and potential effects to First Nations Rights, Interests and Use of Land and Resources are identified and assessed in the following sections using indicators for the following two criteria:

- Use of land and resources for the current and traditional exercise of Indigenous rights, and
- Cultural landscapes and intangible cultural heritage.

Potential effects were identified by reviewing the Project Description, the description of First Nations use of land and resources, culturally important sites and cultural heritage (Section 7.7.8), input from engagement and IK study findings, knowledge from similar projects and activities, and the preliminary potential effects identified in the Amended ToR (Hydro One 2021a).

Effects on the use of land and resources and culturally heritage have the potential to affect Section 35 Rights and interests, and are interpreted to include access to Crown land, resources, and culturally sensitive, sacred or spiritual landscapes and sites that support First Nation culture and way of life.

The following sections provide an assessment of potential effects, including planned mitigation measures, and an assessment of whether each potential effect is considered to have a net effect.

7.7.10.1 *Changes in the Area (ha) of Unoccupied Crown Land Converted to Occupied Crown Land*

Potential Effects

The Project will change the quantity of unoccupied Crown land available for use as the Project footprint overlaps many parcels of Crown land. Changes to land use designations are anticipated to be required for the construction of the Project, and it is anticipated that 3,845.5 ha of Unpatented Crown Land will be converted from unoccupied to being occupied by the Project.

During the Project construction stage, site preparation, clearing and grubbing, the construction of infrastructure (e.g., access roads, fencing, bridges, turn-around areas, temporary laydown areas, and temporary construction camps), the assembly and erection of transmission structures, and the transportation of construction workers, equipment and materials may occur within areas used by First Nations for land and resource use. As a result, Project construction may reduce the amount of unoccupied Crown lands available for exercising rights and use of the land and resources for harvesting and cultural practices.

Reductions in availability would be experienced most heavily within the Project footprint, in the areas directly used for temporary workspaces and permanent infrastructure. Crown land used for temporary workspaces, camps, and access roads will only be unavailable during the site-specific construction stage, after which they will be reclaimed and become available for use



again although some access roads may be retained. A process for engagement regarding retaining access roads will be developed in collaboration with Indigenous communities.

As described in Section 7.7.1.2, the Governments of Canada and Ontario hold the duty to consult Indigenous communities regarding this Project. The Crown may delegate procedural aspects of consultation to a proponent; however, but the ultimate legal responsibility to meet the duty to consult, including regarding the status of Crown lands, lies with the Crown.

On private land, an easement granted to Hydro One for the transmission line ROW would convey priority rights to Hydro One for use of that easement for construction, operation and maintenance purposes. On Crown land, a Land Use Permit is required to provide occupational authority for the permanent footprint (i.e., the ROW) and access roads. This land would become occupied Crown land. This change to available Crown land will affect two other indicators, as discussed in the following sections:

- Availability of harvested resources (see Section 7.7.11.2), and
- Access to preferred harvesting locations (see Section 7.7.11.3).

Mitigation Measures

Hydro One will continue to engage with the Indigenous communities to define specific areas where mitigation can be effectively applied to minimize potential for effects (e.g., related to timing of specific uses). Hydro One will minimize the total footprint of Project access roads by aligning construction and operations stage access planning to the extent possible, will confine Project construction activities to surveyed and marked areas, and will provide notice to affected Indigenous communities prior to the start of construction.

As described in Section 2.0, temporary construction access roads and areas that are being used on a temporary basis during construction, such as laydown areas, pull sites, and helipads, that are located on previously undisturbed lands will be restored following construction.

Net Effects

The Project footprint will directly overlap with unoccupied Crown land, converting it to occupied Crown land, which will result in both temporary and long-term changes to the amount of unoccupied Crown land available for the exercise of rights and interests. Based on these results and following the implementation of mitigation measures outlined in Table 7.7-5, the Project will result in a change to the area of unoccupied Crown land being converted to occupied Crown land during the construction and operation and maintenance stages, which is predicted to impact this use of land and resources for the current and traditional exercise of Indigenous rights and interests. It is noted that there is a range of factors that influence areas selected for use in exercising rights and use of the land and resources for harvesting and cultural practices. These may include areas being considered ecological suitable, accessible, and safe as well as other elements of cultural context. While the area of unoccupied Crown land affected by the Project is used as an indicator of potential for change, it is recognized there is variation in how



different areas are viewed in to determine if it is considered appropriate or preferred by Indigenous communities for the practice of rights.

7.7.10.2 *Changes in the Availability of Harvested Resources*

Concerns about the effects of the Project on fish, wildlife, vegetation, and the effect of those changes on the availability of these resources for harvest have been raised at First Nation community meetings and in IK information provided for this assessment. The evaluation of potential effects on this indicator is largely based on the outcomes of the net effects assessments completed for the biophysical criteria in Section 6.6 Fish and Fish Habitat, Section 6.5 Wildlife and Wildlife Habitat, and Section 6.4 Vegetation and Wetlands.

Potential Effects

Harvesting activities, such as hunting, trapping, fishing and gathering of plant and plant material, that community members participate in are primarily for food and consumption. It is also recognized that harvesting is a traditional activity and a right integral to First Nation culture.

Based on the information provided so far, it is understood that the harvesting of wildlife, fish and plants takes place in portions of the LSA, though it is difficult to quantify the extent of harvesting within the LSA boundaries; thus the assessment of effects is qualitative. As more IK related to harvested resources and culturally important species becomes available it will supplement the understanding of the effects of the Project and the effectiveness of mitigation.

Hunting and Trapping

Members of local First Nation communities hunt moose, deer, ducks, and other species in their traditional territories. Trapping of marten, mink, beaver, otter, lynx, and other furbearers has also historically been an important activity for many community members.

During the construction stage of the Project, there will be direct removal of some wildlife habitat in the Project footprint and sensory disturbances in the LSA, from lights, smells, dust, noise, dust, helicopter use and general human activity. These effects can change wildlife habitat, availability, use, and connectivity, which may lead to changes in wildlife abundance and distribution. Specifically, during construction, wildlife may avoid construction areas due to noise and other disturbance. Section 6.5 identifies that the loss or alteration of vegetation and wetlands, and sensory disturbances can lead to small changes in wildlife abundance and distribution in species such as moose, furbearers and marsh birds. During the operation and maintenance stage, such disturbances will not occur frequently as they will be limited to time when repair or replacement activities will be required in the permanent Project footprint.

Lac des Mille Lacs First Nation shared a concern that construction may impact moose populations in the LSA, for example, through increased moose fatalities on Highway 11 with increases in traffic, as there are quite a few moose travel corridors that cross the highway. GLP and Lac des Mille Lacs First Nation raised concern also regarding the effect of noise from helicopter use on movement for moose as well as other species. There is concern that the increased fragmentation of the landscape will create more opportunities for deer and wolves,



further stressing the moose population. Lac des Mille Lacs First Nation community members also shared concern regarding the effects of herbicide spray on small and large mammals and have reported seeing more liver disease in moose in recent years.

Although, where feasible and practicable, the transmission line follows existing linear features to reduce impacts and fragmentation, there will be some fragmentation of the land from the transmission line and access roads. Indigenous communities requested that the transmission line follow existing linear features to reduce impacts and fragmentation. This request was considered in the selection of a preferred route to minimize fragmentation; however, there will be some fragmentation of the land from the transmission line and access roads. Lands used for temporary workspaces, camps, and access roads are not expected to provide quality wildlife habitat during the construction stage, after which they will be reclaimed and become available for use again. Once construction is completed, the transmission corridor may provide habitat to wildlife again, but may also provide areas for increased predation of some species, such as moose, which can lead to small changes in their survival and reproduction. Despite some additional fragmentation from the transmission line, access roads, facilities such as temporary laydown areas, and temporary construction camps, habitat for several culturally important species such as moose will remain abundant and well connected across the landscape.

The evaluation of potential effects on availability of harvested resources for hunting and trapping is based on the net effects assessments developed by the biophysical disciplines for the relevant wildlife indicators. Where net effects are identified for species considered to be representative of and important to hunting and trapping, that net effect will also impact the availability of harvested resources. Effects of the Project on wildlife and their habitat including moose, furbearing animals and bird species using wetland habitat have been assessed in the wildlife assessment (Section 6.5) as criteria. The assessment of wildlife identifies net effects on moose and furbearing mammals (e.g., American marten, beaver, and gray wolf), marsh birds (e.g., trumpeter swan), and their habitats during construction and operation, which could result in a reduction in the availability of those species to be harvested; thereby, potentially impacting the use of land and resources for the current and traditional exercise of First Nation rights.

Despite some habitat loss for temporary workspaces (e.g., laydown areas), and temporary construction camps, and longer-term habitat fragmentation from the transmission line and permanent access roads, several culturally important species such as moose will remain abundant and well connected across the landscape. Effects from the Project are not predicted to have significant negative effects on moose populations as they are highly mobile, have large home ranges, and can use different habitat types. Similar conclusions were reached for furbearers and marsh birds, as populations are expected to remain self sustaining and ecologically effective relative to the baseline, and effects from the Project are predicted to be not significant.



It was also noted that corona noise from the transmission line is not anticipated to cause wildlife, including bird species, to avoid the ROW and so is not anticipated to reduce habitat availability. Additionally, individuals with home ranges that overlap the Project footprint may currently be habituated to corona noise due to the presence of existing ROW.

Fishing

Fishing is a current and traditional activity, and a rights-based activity, within the LSA. Preferred fish species for harvesting include walleye, northern pike, muskellunge (muskie), and bass from lakes in the area. Through IK studies, it is confirmed that fish harvesting take place in portions of the LSA and in some areas crossed by the Project.

Fish selected as indicator species assessed in Section 6.6 are lake trout, brook trout, northern pike, and walleye, which were chosen due to their ecological, Indigenous, and socio-economic importance:

- Walleye are documented in the southern and northern portions of the RSA.
- Lake trout are documented in the lakes and larger watercourses throughout the LSA.
- Northern pike are documented in the southern and northern portions of the RSA.
- Brook trout are documented in the southern and northern portions of the RSA.

The assessment of the effects on these species has been addressed in Section 6.6. Disturbances that may affect fish habitat directly from construction are the result of the operation of heavy machinery near or in waterbodies, installation of isolation structures during construction (i.e., isolation construction techniques such as flumes, instream diversions, or bypass pumps to divert the water flow around the isolated workspace), bank treatments, placement of structures, fill, and other materials into the water.

As described in Section 6.6 (Fish and Fish Habitat), there is predicted to be a net effect on fish and fish habitat during the construction and operation of the Project. Depending on the extent and location of such effects in relation to fish harvesting areas, effects to fish and fish habitat could result in a reduction in the availability of those species to be harvested; thereby potentially impacting the use of land and resources for the current and traditional exercise of First Nation rights, primarily during the duration of construction activities.

Concerns for water quality especially during construction and maintenance of the transmission line were raised by all First Nations engaged in the Project. Lac des Mille Lacs First Nation noted that dust and sediment deposits from vehicle traffic on roadways should be minimized, especially during the spring spawn. Migisi Sahgaigan, GLP and Lac des Mille Lacs First Nation also raised concern about salt formulations being used on the road near any water crossings, due to potential to harm aquatic species especially during spawn and laying season.



The potential for changes in environmental conditions to affect resource availability and fish harvesting levels for traditional land and resource users during the construction and operation and maintenance stages are addressed in the characterization of the net effects.

Plant Harvesting

As noted in Section 7.7.8.4, plant and material harvesting take place in portions of the LSA and in some areas crossed by the Project, including wild rice, berries and medicine harvest locations.

The assessment of the Project on vegetation has been assessed in Section 6.4 vegetation and wetlands, considering upland, wetland, and riparian ecosystems, including examples of plants of importance to Indigenous communities using those ecosystems. There are several effects predicted on these ecosystems, including reduced soil quality, soil disturbance, changes to hydrology, potential chemical or hazardous material spills, dust and air emissions, and introduction of invasive species. The assessment found that there would be net effects to several of the vegetation criteria, which could result in a reduction in the availability of those plant species to be harvested; thereby potentially impacting the use of land and resources for the current and traditional exercise of Indigenous rights.

Specially, construction activities will require the removal of vegetation in the Project footprint, including the temporary workspaces (e.g., laydown areas and construction camps). Some of the disturbances will be temporary, whereas some alternations will be more permanent (e.g., large trees will not be permitted within the ROW). In the Project footprint, some culturally important plants may be cleared during construction, but low growing plants may re-establish themselves where the disturbance is not permanent. Thus, the impacts during operations will depend on the plant species and location.

During operations, GLP member communities, Lac des Mille Lacs First Nation, Mitaanjigamiing First Nation and Grand Council Treaty #3 have stated a strong preference for mechanical vegetation management and expressed a lack of acceptance for vegetation management on the ROW using chemicals due to potential risk of long-term effects on species that may be consumed (e.g., berries and plants), including animals that also consume the berries and plants, and potential impacts to water or soil.

Harvest Timing

Changes to harvesting from the Project construction, and operations and maintenance activities, are possible if activities overlap spatially and temporally with harvesting timing windows.

Based on the information currently available regarding the species patterns, harvesting locations and times, it is not possible to quantitatively assess seasonal changes in wildlife and wildlife habitat, fish and fish habitat, and vegetation; thus, the assessment of potential effects to hunting, trapping, and fishing is qualitative.

Once construction starts, construction activities are expected to occur throughout the year with staging to avoid or minimize potential effects on environmentally sensitive areas or wildlife



breeding cycles (e.g., breeding bird period, fisheries windows, etc.), where possible. Specific timing, sequencing and staging will be determined during the detailed planning phase. Construction activities will typically occur for one 10-hour shift per day, with normal working hours of 07:00 to 18:00. Night-time work is not anticipated; however, longer shifts may be required. Construction of the transmission line is anticipated to start at multiple locations along the corridor. Consequently, there may be concurrent construction and operation of temporary construction camps, turn-around areas, laydown areas, and access road or trail use.

While the staging will be planned to avoid or minimize potential effects on environmentally sensitive areas or wildlife breeding cycles where possible, construction or maintenance activities may be required during periods when species are active and harvesting practices are preferred. This may result in changes to harvesting practices in proximity to the Project footprint, particularly if there are increased avoidance behaviours, as discussed in Section 7.7.10.6 and reduced access, as discussed in Section 7.7.10.3.

Teaching/Transmittal

Changes in teaching or transmittal of knowledge related to harvesting could also occur as a result of the removal of resources or sites used for teaching and transmittal to the next generation. While there may be some temporary loss of resources and access to sites, it is anticipated that such effects will not substantially reduce the availability of resources and/or sites for teaching and transmittal of knowledge to the next generation. However, some community members may not use the Project area for teaching any longer if there is a belief that the land is no longer a good place for teaching, which would result in a loss of this area for intergenerational learning and that the longevity of the development means that generations to come could be impacted by the Project.

Mitigation Measures

Effort will be made to minimize direct effects and disturbance to wildlife, fish, plants and their habitats through project construction, operations and maintenance such as staging construction to avoid or minimize potential effects on environmentally sensitive areas or wildlife breeding cycles. A detailed list of mitigation measures to reduce impacts to wildlife and wildlife habitat is provided in Section 6.5, measures to reduce impacts to fish and fish habitat are provided in Section 6.6, and measure to reduce effects to plants (vegetation) are provided in Section 6.4.

There may be other resources that are important to local communities for harvesting and that may be identified in the ongoing IK studies. Hydro One will continue to work with First Nation communities to identify other harvested resources, and through engagement develop appropriate mitigation or avoidance measures. As further IK information is shared, the information will be incorporated into project planning and decision-making. For example, creating opportunities for pre-construction harvesting of plants and medicines in the transmission line path (ROW).



Through engagement during the EA process, Hydro One heard feedback from Indigenous communities and stakeholders regarding concerns with the use of herbicides to remove and manage vegetation on the Project. After extensive consideration of this feedback, herbicides will not be used during construction of the Project or for future maintenance of this transmission line.

Notice will be provided to affected Indigenous communities prior to the start of construction. During hunting seasons or periods of harvests, signage will be posted along public roadways in proximity to areas of construction and maintenance activities as appropriate to alert other land users that workers are in the area.

As well, in response to concerns raised by GLP and Lac des Mille Lacs First Nation related to moose habitat, Hydro One will prioritize avoiding sensitive or important moose areas (e.g., traditional hunting grounds, calving areas, late winter cover areas, mineral licks, etc.) when selecting alternate or preferred new access routes to minimize moose habitat loss and disturbance and during the selection and delineation of fly yards, laydown areas, aggregate sites, other project components, etc.

Section 10.0 of the Final EA Report outlines the monitoring requirements for the Project, including proposed monitoring for wildlife and wildlife habitat. Indigenous communities have noted the importance of moose to their communities. Hydro One will work with Indigenous communities to develop and implement mitigation effectiveness monitoring.

Net Effects

The Project footprint will directly overlap with areas that are used by wildlife, fish and plants that are harvested by members of First Nation communities. Project construction, and operation and maintenance activities, are likely to cause sensory disturbance to these resources. Based on these results and following the implementation of mitigation measures outlined in Table 7.7-5, the Project has potential to result in a net change to the availability of harvested resources during the construction, and operation and maintenance stages, which has potential to impact this use of land and resources for the current and traditional exercise of Indigenous rights and interests.

7.7.10.3 *Changes in Access to Preferred Harvesting Areas*

Access to preferred harvesting areas supports the harvesting activities discussed in Section 7.7.10.2, and are important for the current and traditional exercise of Indigenous harvesting rights and interests. Based on the information provided, it is understood that there may be preferred harvesting areas in portions of the LSA, though it is difficult to quantify the extent of these areas within the LSA boundaries; thus, the assessment of effects is qualitative.

Potential Effects

Formal and tertiary roadways, terrestrial and aquatic travel routes, aquatic access points and boat caches are integral to the ongoing harvest of resources and are integral to traditional land and resource use. It is predicted that construction, and operation and maintenance in the



Project footprint could both increase and decrease access to these travel routes and areas that are preferred for harvesting resources (i.e., hunting, trapping, fishing and plant materials).

Restricted Access

During the Project construction stage, the construction of infrastructure may reduce or limit access to lands and waters available for hunting, fishing, trapping or other harvesting, and some access to camps or cabins. Specifically, access to resource areas in the LSA may face temporary restrictions or limitations, particularly excluding users due to safety concerns relating to construction activities. As well, the increase in occupation of Crown land for construction, operation and maintenance of the Project could result in temporary or permanent reduction in access to that land for current and traditional land and resource use.

Roadways may experience increased traffic during the Project workday. Aquatic and canoe travel routes could experience temporary access restrictions where construction activities cross navigable waterways. Certain specific secondary roads may also experience intermittent, short-term closures due to Project clearing, infrastructure construction, and assembly, use of explosives, the operation of construction equipment, the construction of new waterbody crossings, cable stringing, or other construction activities, to promote worker and public safety.

Reductions in access would be experienced most heavily within the Project footprint. Temporary disturbances to access and use of access to preferred harvesting areas during the construction stage would be most noticeable where these areas are in close proximity to, or overlap with, the Project footprint and the LSA.

Although access and use of the access roads and the ROW may face temporary restrictions during the site-specific construction stage, these disturbances will not be continuously in effect because construction will be completed using a staged approach. Temporary access restrictions will only be put in place for a few weeks to a few months within the larger construction schedule, as Project construction progresses along the ROW. Moreover, there are areas that are productive adjacent to the LSA that provide users with other means of accessing the same or similar opportunities for fishing, hunting, and trapping.

Temporary access restrictions experienced during the site-specific construction stage will not be continuous (as construction will be completed using a staged approach, but rather, for a few weeks to a few months within the larger construction schedule, as Project construction progresses along the ROW. The restricted Project footprint access may not noticeably remove opportunities for these activities to occur at the LSA level, although some individual users may be affected. As well, despite these restrictions, users would be able to continue to access a wide range of other areas and resources, including preferred harvesting areas that are not within the LSA throughout the construction stage.

Maintenance activities, including the periodic inspection of the transmission line and associated infrastructure, necessary repairs, and vegetation management along the ROW, are predicted to be infrequent. Access restrictions for traditional land and resource use areas related to these



operational and maintenance activities will be communicated to nearby Indigenous communities well in advance of when they are planned to occur.

Increased Access

Construction of the Project could open new areas or expand access to a broader range of resources and harvest areas, both on and adjacent to the ROW and new access roads. This could have a positive impact, such as increased access to harvesting areas along the Project footprint, or could be considered negative if the increased access results in impacts to the land and availability of resources for traditional land and resource use.

Access restrictions during the operation and maintenance stage would be limited to infrequent, periodic maintenance activities; otherwise, the ROW and permanent access roads will remain open and accessible to traditional land and resource users, and are predicted to be actively used. In this sense, the creation of permanent access roads and the linear transmission line ROW could create increased access to preferred harvesting areas over the longer term.

These changes could also result in an influx of First Nation hunters, trappers, anglers and non-First Nation outdoor tourism, recreation and other land users to areas within and adjacent to the new ROW, and encroaching on lands typically used (or with limited access) by Indigenous peoples. Increased active use resulting from expanded access could further reduce the availability of resources to harvest, as well as the remote character and values of the traditional land and resource use for both construction and operation and maintenance stages of these projects.

Mitigation Measures

There have been and may be additional specific access routes to preferred harvesting areas important to local communities shared through IK studies that may be affected by the Project, such as a water transportation route near Dinorwic of value to Migisi Sahgaigan or trails identified of importance to Lac des Mille Lacs First Nation. Hydro One will continue to work with First Nation communities to develop appropriate mitigation or avoidance measures for specific sites. Where further IK is shared, the information will be incorporated into the next stage of project planning and decision-making, and appropriate avoidance or mitigation measures discussed with communities.

Project construction activities will be confined to surveyed and marked areas, and a construction Traffic/Access Management Plan will be prepared and implemented.

Information will be shared to provide land users clarity on the regulatory restrictions or other legal encumbrances that will impact use of the transmission line ROW. Opportunities for pre-construction harvesting of plants and medicines in the transmission line path (ROW) will be made.

Notice will be provided to affected Indigenous communities prior to the start of construction. Signage will be posted along public roadways in proximity to areas of construction and maintenance activities as appropriate to alert other land users that workers are in the area.



Net Effects

It is predicted that construction of the Project footprint could both increase and decrease access to areas that are preferred for harvesting resources. Based on these results and following the implementation of mitigation measures outlined in Table 7.7-5, the Project will result in a net change to the access to preferred harvesting areas during the construction and operation and maintenance stages, which has potential to impact this use of land and resources for the current and traditional exercise of Indigenous rights.

7.7.10.4 *Changes in Access to Culturally Sensitive, Sacred, or Spiritual Landscapes and Sites*

This section assesses potential changes to accessing culturally sensitive, sacred, or spiritual landscapes and sites that are important to local Indigenous communities. These may include culturally sensitive burial grounds, sacred areas and occupancy sites of cultural importance within the LSA.

Indigenous-recognized archaeological resources are those formally or informally recognized by Indigenous communities or organizations, which may include sites registered in the Ontario Archaeological Sites Database or unregistered sites.

Culturally sensitive, sacred, or spiritual landscapes or sites have been identified that may be overlapped by the Project footprint or within the LSA, specifically burial sites identified by Migisi Sahgaigan, Lac des Mille Lacs First Nations and Wabigoon Lake Ojibway Nation. As well, cultural sites were shared by Nigigoonsiminikaaning First Nation and Mitaanjigamiing First Nation to be avoided, but which are located outside the LSA and from Couchiching First Nation, located outside of the RSA. Given the distance from Project activities, sites located outside of the LSA are not considered at risk to be impacted by the Project.

As reported in Section 7.5, some archaeological sites have been identified in the LSA, including:

- Indigenous sites such as campsites, portage areas, canoe spills (i.e., where cargo from canoe was spilt and not recovered), caches, sacred sites, resource extraction areas, and burial sites.
- Resources related to historical Euro-Canadian sites, such as infrastructure associated with logging and mining, early domestic settlement, early industrial infrastructure, religious centres (e.g., missionary related), cemeteries, single isolated burials, canoe spills, caches, fur trade associated infrastructure, and early recreational infrastructure (e.g., related to tourism).
- Petroglyphs, pictographs, and guideposts used by both Indigenous peoples and Euro-Canadian settlers.

Potential Effects

The construction and operation of a transmission line is expected to result in an increase in avoidance behaviours from First Nation community members in relation to accessing culturally



important landscapes and sites. Community members may feel that spiritual activities or the use and enjoyment of cultural and/or sacred sites cannot be undertaken near a transmission line as it would be too intrusive to allow for spiritual activities, would affect the sacredness of the rituals and the visual aspects and tranquility of the sites.

Culturally sensitive sites, such as burial grounds, sacred areas and occupancy sites of cultural importance have been identified that may be overlapped by the Project footprint or within the LSA that could be lost or altered as a result of the construction if not avoided. During construction, the alteration of the landscape could result in damage or destruction to terrestrial or marine archaeological resources which may be culturally sensitive. This could involve displacement of artifacts, the loss of valuable contextual information, or the complete destruction of artifacts and features leading to the complete loss of data.

Conversely, construction of the Project could open new areas or expand access to a broader range of resources and harvest areas, both on and adjacent to the ROW and new access roads. This could have a positive impact, such as increased access by community members to specific sacred, or spiritual landscapes or sites along the Project footprint, or could be considered negative if the increased access results in adverse impacts to the specific sacred, or spiritual landscapes or sites.

These changes could result in an influx of both Indigenous and non-Indigenous land users to areas within and adjacent to new the ROW, and encroaching on lands typically used (or with limited access) by Indigenous peoples. Expanded access could further reduce the remote character and values of the specific sacred, or spiritual landscapes or sites.

During the operation and maintenance stage of the Project, maintenance activities, including the necessary repairs and vegetation management along the ROW, are predicted to be infrequent and are not anticipated to disturb areas that were not also disturbed during construction; thus, effects to culturally sensitive resources are not anticipated during the operation and maintenance stage.

Changes in teaching or transmittal of knowledge to the next generation could also occur as a result of the removal of the cultural connections required for teaching and transmittal of cultural identity. This includes consideration of intangible values like quiet enjoyment of the landscape or sites used for teaching. Some community members may not use the Project area for teaching any longer, which would result in a loss of this area for intergenerational learning, particularly if there is a belief that the land would no longer be a good place for teaching.

Mitigation Measures

For the specific cultural sites identified by Migisi Sahgaigan between Atikokan and Dryden, and by Lac des Mille Lacs First Nation in the Shebandowan Lake area, Hydro One is working with communities to clarify spatial and timing constraints for site-specific areas of concerns, and through engagement develop appropriate mitigation or avoidance measures, For the specific cultural site recently identified by Wabigoon Lake Ojibway Nation near White Otter Lake, the



assessment completed in other sections of the EA was done accounting for the footprint area represented by this proposed camp. However, as a result of the community's feedback, Hydro One commits to not using this camp location, as shown in the mapping of the Project footprint in Appendix 3.0A. As IK information becomes available, the information will be incorporated the next project planning and decision-making milestone, and appropriate avoidance or mitigation measures will be developed and implemented.

Based on the findings of the Stage 1 Archaeological Assessment, the Project footprint will require a Stage 2 Archaeological Assessment prior to construction for the areas identified as having archaeological potential and recommended for further archaeological work. The results of the Stage 2 Archaeological Assessment will be used to develop strategies to mitigate potential direct effects of the Project on any archaeological resources identified within or adjacent to the identified preferred corridor.

Recognized and potential archaeological resources are discussed with Indigenous communities, to the extent possible, prior to the Stage 2 Archaeological Assessment as part of the ongoing engagement process. As well, there will be engagement with Indigenous communities related to archaeological sites identified in the Archaeological Resources LSA through the completion of the Stage 2 Archaeological Assessment. These sites will be subject to avoidance and protection measures to avoid loss of, or damage to, archaeological resources, or assessed and mitigated by excavation.

Further archaeological work will involve Indigenous community members interested in and/or knowledgeable about the area. Training of local Indigenous community members build capacity for future archaeological projects within and outside their traditional territories. Cultural awareness training will be provided to construction staff to facilitate the identification of unexpected archaeological resources.

In the event that archaeological resources not previously identified are suspected or encountered unexpectedly during construction, the following mitigation measures will be implemented:

- Suspend activity at that location and do not allow work to resume until permission is granted by Hydro One who will engage Indigenous communities and their Elders to obtain direction.
- Following engagement with the affected Indigenous communities and their Elders, Hydro One will bring in a licenced archaeologist and contact the MCM.
- The licenced archaeologist will develop an appropriate mitigation measures plan including engagement with Hydro One, affected Indigenous communities, their Elders and stakeholders, and if necessary, the appropriate regulatory agencies.



- Continue to offer ongoing engagement to affected communities and apply protocols identified by Indigenous communities for land access and treatment of findings. Hydro One will consult with the MCM regarding proposed protocols on treatment of findings, where appropriate.

The effect of the Project on archaeological resources, including the number of archaeological sites in the Project footprint, and the area of the Project footprint with archaeological potential is predicted to be minimized with effective implementation of the mitigation measures as described in the Archaeological Resources Section (Section 7.5).

To minimize potential impacts, the Project design will consider existing roads and trails such that construction of the establishment of new access roads will be avoided as much as is feasible and practicable.

There may be other sites important to local communities that will be identified in the ongoing IK studies. Hydro One will work with First Nation communities to identify other culturally sensitive, sacred, or spiritual landscapes, and through engagement develop appropriate mitigation or avoidance measures. As IK studies become available, the information will be incorporated into project planning and decision-making, and appropriate avoidance or mitigation measures will be developed and implemented.

Net Effects

Implementation of mitigation measures with involvement by Indigenous communities will help to reduce potential effects to changes in access to culturally sensitive, sacred, or spiritual landscapes and sites. However, the potential for loss or alteration of access to cultural sites or resources as a result of construction could represent a predicted net effect in changes to access to culturally sensitive, sacred or spiritual landscapes and sites.

7.7.10.5 Changes in Quality of Experience/Sense of Place

This section assesses potential changes to quality of experience or “sense of place” in relation to areas the LSA that used for hunting, trapping, fishing, plant harvesting and other cultural activities by First Nations communities. Land and resource use by community members is an integral part of their cultures and has been passed down through generations, reinforcing connections to the land. Land users appreciate the low noise levels and limited visual disturbances in the area (i.e., in terms of visible development) as part of their connection to their traditional way of life. Maintaining the remote environmental setting is considered important to some individuals as part of their experience of the land. Changes in perception of ‘place’ may occur as a result of changes in perception of harvesting experience, changes in perception of species, and changes in perception of sites.



Potential Effects

The assessments completed in Section 6.7 Air Quality, Section 6.9 Acoustic Environment, and Section 7.4 Aesthetics, have been used as a basis to support the evaluation of effects in this section. As well, sense of well being including perceptions of safety are described in Section 7.2.

Some First Nation community members have indicated that they will generally avoid areas in proximity to the Project footprint due to increased disturbance from workers and traffic in proximity to the site. As well, community members have expressed concern about the corona effects (i.e., line hum), indicating that it may be disruptive for gathering if people are in an area for an extended period of time, or if hunted species would be affected by the corona effect.

During both construction and operations, gathering in close proximity to the ROW may be avoided based on perception of risk of potential herbicide or pesticide usage. It is noted that land cleared for a transmission line can also create habitat for the growth of plants such as blueberry; therefore, there could also be an increase in desirable plants and plant harvesting by some.

Noise and Vibrations

There will be noise emissions during the construction stage of the Project as a result of general construction activities like pile driving and the use of large off-road equipment such as dozers, backhoes, and excavators. An assessment of the potential changes in noise levels was assessed in Section 6.9 Acoustic Environment. That assessment includes the construction of the transmission line, temporary construction camps, temporary laydown areas, and access roads, the use of aggregate sites, and upgrades to the transformer stations.

Noise levels will increase in some areas on occasion; however, the noise will be temporary in nature and localized. There will also be increased vibrations during construction, from activities such as pile driving and blasting, though these will be limited and intermittent.

During operation, audible noise is emitted by a transmission line. The noise emitted, called corona noise, typically resembles a crackling sound. Modern transmission lines are designed, constructed, and maintained so that during dry conditions they will minimize corona-related sound. Therefore, during dry weather conditions, noise from the proposed transmission lines will be generally indistinguishable from background sound levels at locations beyond the edge of the transmission line ROW. During rainfall events or high humidity, the noise level at the edge of the transmission line ROW will remain at a low level but elevated when compared to dry conditions.

During maintenance activities, such as repairs or replacement works, existing noise levels can be expected to increase, on occasion, at the potential points of reception. Resulting noise or vibrations will be short-term and temporary in nature. The increase in noise and vibrations, whether during construction, or operations or maintenance is considered to have a potential effect on land users and people in proximity to the Project footprint. Both the noise and vibration



may impact First Nation community member experience on the land as they harvest or participate in other cultural activities. This may result in temporary avoidance of areas during these activities.

Air Quality

Construction related activities will result in some emissions from vehicles, equipment, slash and burn, generators, along with others. Section 6.7 Air Quality outlines the potential sources of emissions and predicted effects in detail. The air quality during construction is predicted to be below relevant regulatory criteria within 100 m of the Project footprint. It is predicted that concentrations will decrease by as much as 40% approximately 100 m from the Project footprint.

Given these low levels, and that access to the Project construction areas will be restricted, it is not expected that air quality will have an effect on quality of experience or sense of place in areas of use for traditional purposes.

Aesthetics

An assessment outlining the potential impacts on the Visual Environment/ Aesthetics is provided in Section 7.4. Several areas along the Preferred Route were chosen for analysis, based on ease of access, recreational use, and potential viewpoint of the Project. The assessment found that the erection of new transmission structures, continued visibility of built structures, and ongoing vegetation management related to the operation and maintenance of the Project can contrast with the existing landscape and negatively affect visual aesthetics. These potential effects were identified as having a net effect because there will be a change to the existing visual aesthetics (e.g., maintenance of the visual aesthetics of the Project area relative to the existing surrounding landscape) of the area, after consideration of mitigation. These net effects may affect a person's perception of harvesting experience or of specific sites if the transmission line is visible from such sites.

In addition, during operation and maintenance, vegetation management will occur in the permanent ROW to maintain transmission line integrity. As a result, previously forested areas will be maintained with no large trees and will remain accessible, introducing noticeable changes to resource use areas.

Based on that assessment, it is possible that the aesthetics of the Project will have an effect on quality of experience or sense of place in areas of use for traditional purposes if the transmission line is visible from such sites.

Mitigation Measures

Numerous mitigation measures will be implemented to minimize the potential impact of noise and air borne emissions outlined in Section 6.9 Acoustic Environment and 6.7 Air Quality. Hydro One and its contractors will comply with local municipal noise by-laws and the Ministry of the Environment, Conservation and Parks (MECP) Model Municipal Noise Control Bylaw. Also, notifications will be sent to Indigenous communities along the ROW of the planned construction



schedule before the start of construction. If there are concerns or issues raised by Indigenous community members, there will be a process implemented for Hydro One to discuss and address those issues. Also, measures to reduce dust and air emissions will be put in place, such as minimizing dust-generating activities, as practicable and where required, during periods of high wind to limit dust emissions and spread. Calcium chloride may be used along municipal roads near residences to reduce dust and improve safety where there is increased Project traffic interface with public road users. Application of calcium chloride by Hydro One will be completed in consultation with road authorities and will not occur within 120 m of a waterbody or wetland.

Mitigation measures for effects to visual aesthetics during the operations and maintenance stage have been incorporated into the Project design to minimize negative effects. Mitigation measures considered in the potential effects analysis for visual aesthetics included the selection and location of structures to minimize visibility and visual contrast with the existing conditions. As well, appropriate waste management strategies will be implemented to ensure construction sites are properly maintained.

Important to the perceptions of safety, Hydro One and their contractor will strictly prohibit carrying recreational firearms in company vehicles and storage of recreational firearms and all-terrain vehicles for personal use at project facilities (i.e., camps).

There may be other factors of relevance to local communities that will be identified in the ongoing IK studies. Hydro One will work with First Nation communities to identify other factors of importance to quality of experience/sense of place in areas of use for traditional purposes, and through engagement develop appropriate mitigation or avoidance measures. As IK information is shared, the information will be incorporated into project planning and decision-making, and appropriate avoidance or mitigation measures will be developed and implemented.

Net Effects

The Project is expected to have a net effect on the quality of experience/sense of place in areas of use for traditional purposes, including sensory disturbance through Project-related changes to noise, vibrations and changes to the visual landscape (aesthetics). These effects may result in changes to cultural practices.

Changes to air quality are not predicted to affect quality of experience/ sense of place in areas used for traditional purposes.

7.7.10.6 Potential Effects, Mitigation Measures, and Predicted Net Effects

Table 7.7-5 provides a summary of the potential effects, mitigation measures, and predicted net effects, based on the effects assessment discussion. The descriptions of mitigation measures identified above are further supplemented in Table 7.7-5.

Table 7.7-5: Potential Effects and Mitigation Measures to Section 35 Rights

Project Component or Activity	Potential Effect	Mitigation Measures	Net Effect
<p>Project activities during the construction stage:</p> <ul style="list-style-type: none"> Construction of temporary construction camps, temporary laydown areas and access roads, Use of aggregate pits (including blasting), Upgrades to the transformer stations, and Construction of the transmission line, which is expected to include clearing, access, foundations and anchors (including blasting), assembly, erection, stringing (including cable splicing), and reclamation; Decommissioning and reclamation of the decommissioned access roads, temporary laydown areas, staging areas, and construction camps. <p>Operation and maintenance stage:</p> <ul style="list-style-type: none"> Operation and maintenance of new ROW, fencing, transmission line, conductors, tower foundations, transformer stations and permanent access roads. 	<p>Change in area (ha) of unoccupied Crown land converted to occupied Crown land.</p>	<p>Construction Stage:</p> <ul style="list-style-type: none"> Implement mitigation measures applied to land use planning, parks and protected area criteria as described in other sections of this EA (i.e., Section 7.1 Non-Indigenous Land and Resource Use) that speak to minimizing the Project footprint. Confine Project construction activities to surveyed and marked areas. Provide notification of construction activities to affected Indigenous communities, landowners, and stakeholders along the Project corridor as required under Project permits, approvals, and agreements, including sharing approximate dates that work may be done in an area prior to commencing work in the area. The notification process will be developed in collaboration with affected Indigenous communities. Development of new aggregate resources will undergo the applicable permitting process and will include engagement with Indigenous communities as part of the permitting process or as committed to by Hydro One. Indigenous communities will be engaged on decisions regarding access roads left in place to support operations and maintenance. Hydro One will minimize the total footprint of Project access roads by aligning construction and operations stage access planning to the extent possible. <p>Operation and Maintenance Stage:</p> <ul style="list-style-type: none"> Implement mitigation measures applied to land use planning, parks and protected area criteria as described in other sections of this EA (i.e., Section 7.1 Non-Indigenous Land and Resource Use) that speak to minimizing the Project footprint. Restore temporary construction access roads and areas that are being used on a temporary basis during construction, such as laydown areas, pull sites, and helipads, that are located on previously undisturbed lands. Where necessary, sediment and erosion control measures will be implemented for areas for the temporary structures like access roads, watercourse crossings, laydown areas, and construction camps. Provide notification of maintenance activities to affected Indigenous communities, landowners, and stakeholders along the Project corridor as required under Project permits, approvals, and agreements, including sharing approximate dates that work may be done in an area prior to commencing work in the area. The notification process will be developed in collaboration with affected Indigenous communities. 	<p>Net change in area (ha) of unoccupied Crown land converted to occupied Crown land.</p>
<p>Project activities during the construction stage:</p> <ul style="list-style-type: none"> Construction of temporary construction camps, temporary laydown areas and access roads, the use of aggregate pits (including blasting), upgrades to the transformer stations, and construction of the transmission line, which is expected to include clearing, access, foundations and anchors (including blasting), assembly, erection, stringing (including cable splicing), and reclamation; Operation of vehicles, helicopters and construction equipment; and Decommissioning and reclamation of the decommissioned access roads, temporary laydown areas, staging areas, and construction camps. <p>Operation and maintenance stage:</p> <ul style="list-style-type: none"> Operation and maintenance of new ROW, fencing, transmission line, conductors, tower foundations, transformer stations and permanent access roads. 	<p>Change to the availability of harvested resources.</p>	<p>Construction Stage:</p> <ul style="list-style-type: none"> Reduce indirect effects on traditional land and resource use through implementing mitigation measures applied to biophysical criteria as described in other sections of this EA (i.e., Sections 6.2 Surface Water, 6.4 Vegetation and Wetlands, Section 6.5 Wildlife and Wildlife Habitat, Section 6.6 Fish and Fish Habitat, Section 6.7 Air Quality, Section 6.9 Acoustic Environment, and Section 7.4 Aesthetics). Construction staging will be planned to avoid or minimize potential effects on environmentally sensitive areas or wildlife breeding cycles (e.g., breeding bird period, fisheries windows, etc.), where possible. Hydro One will continue to work with First Nation communities as IK information becomes available to identify specifically affected areas of harvested resources (i.e., hunting, trapping, fishing, gathering), and review existing or develop appropriate mitigation or avoidance measures. As IK information becomes available, the information will be incorporated into the next project planning and decision-making milestone. Hydro One will continue discussions with affected Indigenous communities on priority hunting areas and helicopter activity within these areas. Helicopter use in identified priority hunting areas will be limited to the extent reasonably possible. This may include adjusting flight paths around sensitive features or altering start and end times during the day for specific areas. A Communications Plan will establish the communications process for both formal and informal communications with Indigenous communities, project stakeholders, and other organizations. Provide notification of construction activities to affected Indigenous communities, landowners, and stakeholders along the Project corridor as required under Project permits, approvals, and agreements, including sharing approximate dates that work may be done in an area prior to commencing work in the area. The notification process will be developed in collaboration with affected Indigenous communities. 	<p>Net change to the availability of harvested resources.</p>

Project Component or Activity	Potential Effect	Mitigation Measures	Net Effect
		<ul style="list-style-type: none"> Signage will be posted along public roadways in proximity to areas of construction activities as appropriate to alert other land users that workers are in the area, such as during hunting seasons or periods of harvests indicated by Indigenous communities. Signs will be placed in engagement with the appropriate authorities. Calcium chloride may be used along municipal roads near residences to reduce dust and improve safety where there is increased Project traffic interface with public road users. Application of calcium chloride by Hydro One will be completed in consultation with road authorities and will not occur within 120 m of a waterbody or wetland. <p>Operation and Maintenance Stage:</p> <ul style="list-style-type: none"> Reduce indirect effects on traditional land and resource use through implementing mitigation measures applied to biophysical criteria as described in other sections of this EA (i.e., Sections 6.2 Surface Water, 6.4 Vegetation and Wetlands, Section 6.5 Wildlife and Wildlife Habitat, Section 6.6 Fish and Fish Habitat, Section 6.7 Air Quality, Section 6.9 Acoustic Environment, and Section 7.4 Aesthetics). A Communications Plan will establish the communications process for both formal and informal communications with Indigenous communities, project stakeholders, and other organizations. Provide notification of maintenance activities to affected Indigenous communities, landowners, and stakeholders along the Project corridor as required under Project permits, approvals, and agreements, including sharing approximate dates that work may be done in an area prior to commencing work in the area. The notification process will be developed in collaboration with affected Indigenous communities. Signage to be posted along public roadways in proximity to areas of maintenance activities as appropriate, to alert other land users that workers are in the area, such as during hunting seasons or periods of harvests indicated by Indigenous communities. Signs will be placed in engagement with the appropriate authorities. 	
<p>Project activities during the construction stage:</p> <ul style="list-style-type: none"> Construction of temporary construction camps, temporary laydown areas and access roads, the use of aggregate pits (including blasting), upgrades to the transformer stations, and construction of the transmission line, which is expected to include clearing, access, foundations and anchors (including blasting), assembly, erection, stringing (including cable splicing), and reclamation; Operation of vehicles, helicopters and construction equipment; and Decommissioning and reclamation of the decommissioned access roads, temporary laydown areas, staging areas, and construction camps. <p>Operation and maintenance stage:</p> <ul style="list-style-type: none"> Operation and maintenance of new ROW, fencing, transmission line, conductors, tower foundations, transformer stations and permanent access roads. 	<p>Change to access (increased or decreased) to preferred harvesting areas (hunting, trapping, fishing and plant harvest).</p>	<p>Construction Stage:</p> <ul style="list-style-type: none"> Hydro One will continue to work with First Nation communities as IK studies become available during the EA process to identify any specifically affected points of access, and review existing or develop appropriate mitigation or avoidance measures. As IK studies become available, the information will be incorporated into the next project planning and decision-making milestone. Information will be shared to provide land users clarity on the regulatory restrictions or other legal encumbrances that will impact use of the transmission line ROW. A Communications Plan will establish the communications process for both formal and informal communications with Indigenous communities, project stakeholders, and other organizations. Project construction activities will be confined to surveyed and marked areas, and a construction Traffic/Access Management Plan will be prepared and implemented. Construction routes will be designed so as to avoid key access roads/entrances and new travel lanes for maintenance will be gated, fenced, ditched or bermed as appropriate to be to limit travel to construction traffic and to prevent unplanned/undesired recreational access during the operation and maintenance stage. Disturbances will be avoided and minimized and access restrictions on areas where OTN trails, non-OTN trails, and other trails including resource trails are located will be implemented where possible. Reduce direct effects on access to harvesting areas by implementing the mitigation measures also applied to hunting, trapping, fishing criteria for non-Indigenous land users as described in other sections of this EA (i.e., Section 7.1 Non-Indigenous Land and Resource Use). <p>Operation and Maintenance Stage:</p> <ul style="list-style-type: none"> Through engagement during the Draft EA process, Hydro One heard feedback from Indigenous communities and stakeholders regarding concerns with the use of herbicides to remove and manage vegetation on the Project. After extensive consideration of this feedback, herbicides will not be used during construction of the Project or for future maintenance of this transmission line. Information will be shared to provide land users clarity on the regulatory restrictions or other legal encumbrances that will impact use of the transmission line ROW. A Communications Plan will establish the communications process for both formal and informal communications with Indigenous communities, project stakeholders, and other organizations. 	<p>Net change to access (increase and decrease) to preferred harvesting areas.</p>

Project Component or Activity	Potential Effect	Mitigation Measures	Net Effect
		<ul style="list-style-type: none"> • Provide notification of maintenance activities to affected Indigenous communities, landowners, and stakeholders along the Project corridor as required under Project permits, approvals, and agreements, including sharing approximate dates that work may be done in an area prior to commencing work in the area. The notification process will be developed in collaboration with affected Indigenous communities. • Signage will be posted along public roadways in proximity to areas of maintenance activities as appropriate to alert other land users that workers are in the area, such as during hunting seasons or periods of harvests indicated by Indigenous communities. Signs will be placed in engagement with the appropriate authorities. • During the operations stage, existing roads and trails will be used where possible with affected trails repaired and rehabilitated. • Access roads will be established within the transmission line ROW for use during operation and maintenance. The access will be located, for the most part, within the cleared ROW; however, in some places (e.g., where the ROW spans a waterbody or crosses difficult terrain) an access road off-ROW may be required to reduce the number of watercourse crossing requirements. 	
<p>Project activities during the construction stage:</p> <ul style="list-style-type: none"> • Construction of temporary construction camps, temporary laydown areas and access roads, the use of aggregate pits (including blasting), upgrades to the transformer stations, and construction of the transmission line, which is expected to include clearing, access, foundations and anchors (including blasting), assembly, erection, stringing (including cable splicing), and reclamation; • Operation of vehicles, helicopters and construction equipment; and • Decommissioning and reclamation of the decommissioned access roads, temporary laydown areas, staging areas, and construction camps. <p>Operation and maintenance stage:</p> <ul style="list-style-type: none"> • Operation and maintenance of new ROW, fencing, transmission line, conductors, tower foundations, transformer stations and permanent access roads. 	<p>Change to cultural practices considering access to culturally sensitive, sacred or spiritual landscapes and sites.</p>	<p>Construction Stage:</p> <ul style="list-style-type: none"> • Provide notification of construction activities to affected Indigenous communities, landowners, and stakeholders along the Project corridor as required under Project permits, approvals, and agreements, including sharing approximate dates that work may be done in an area prior to commencing work in the area. The notification process will be developed in collaboration with affected Indigenous communities. • Hydro One will work with First Nation communities to identify other culturally sensitive, sacred, or spiritual landscapes, and through engagement develop appropriate mitigation or avoidance measures. As IK information becomes available, the information will be incorporated the next project planning and decision-making milestone, and appropriate avoidance or mitigation measures will be developed and implemented. • Reduce effects on culturally sensitive, sacred or spiritual landscapes and sites by implementing the mitigation measures applied in other sections of this EA (i.e., Section 7.5 Archaeological Resources), including environmental monitoring. • There will be engagement with Indigenous communities related to archaeological sites identified in the Archaeological Resources LSA through the completion of the Stage 2 Archaeological Assessment. These sites will be subject to avoidance and protection measures to avoid loss of, or damage to, archaeological resources, or assessed and mitigated by excavation. • The Stage 2 Archaeological Assessment (and Stage 3 and 4, if required) should be undertaken as soon as possible in the Detailed Planning Phase, prior to construction. Further archaeological work will involve Indigenous community members interested in and/or knowledgeable about the area. • Training of the Indigenous community members about archaeological fieldwork methods, as well as general theory, will be built into the Project scope. Training of local Indigenous community members will build capacity for future archaeological projects within and outside their traditional territories. • The Stage 2 Archaeological Assessment report will be provided to Indigenous communities prior to submission to the MCM. • In the event that archaeological resources not previously identified are suspected or encountered unexpectedly during construction, implement the following mitigation measures: <ul style="list-style-type: none"> • Suspend activity at that location and do not allow work to resume until permission is granted by Hydro One who will engage Indigenous communities and their elders to obtain direction. • Following engagement with the affected Indigenous communities and their elders, Hydro One will bring in a licenced archaeologist and contact the MCM. • The licenced archaeologist will develop an appropriate mitigation measures plan including engagement with Hydro One, affected Indigenous communities, their elders and stakeholders, and if necessary, the appropriate regulatory agencies. • Continue to offer ongoing engagement to affected communities and apply protocols identified by Indigenous communities for land access and treatment of findings. Hydro One will consult with the MCM regarding proposed protocols on treatment of findings, where appropriate. • Cultural awareness training will be provided to the contractor to facilitate the identification of unexpected archaeological resources and protocols/procedures for reporting. 	<p>No net effects predicted.</p>

Project Component or Activity	Potential Effect	Mitigation Measures	Net Effect
		<ul style="list-style-type: none"> A Communications Plan will establish the communications process for both formal and informal communications with Indigenous communities, project stakeholders, and other organizations. <p>Operation and Maintenance Stage:</p> <ul style="list-style-type: none"> Provide notification of construction activities to affected Indigenous communities, landowners, and stakeholders along the Project corridor as required under Project permits, approvals, and agreements, including sharing approximate dates that work may be done in an area prior to commencing work in the area. The notification process will be developed in collaboration with affected Indigenous communities. A Communications Plan will establish the communications process for both formal and informal communications with Indigenous communities, project stakeholders, and other organizations. 	
<p>Project activities during the construction stage:</p> <ul style="list-style-type: none"> Construction of temporary construction camps, temporary laydown areas and access roads, the use of aggregate pits (including blasting), upgrades to the transformer stations, and construction of the transmission line, which is expected to include clearing, access, foundations and anchors (including blasting), assembly, erection, stringing (including cable splicing), and reclamation; Operation of vehicles, helicopters and construction equipment; and Decommissioning and reclamation of the decommissioned access roads, temporary laydown areas, staging areas, and construction camps. <p>Operation and maintenance stage:</p> <ul style="list-style-type: none"> Operation and maintenance of new ROW, fencing, transmission line, conductors, tower foundations, transformer stations and permanent access roads. 	<p>Changes to cultural practices considering quality of experience/sense of place in areas of use for traditional purposes, including sensory disturbance through Project-related changes to air quality, acoustics and visual landscape (aesthetics).</p>	<p>Construction Stage:</p> <ul style="list-style-type: none"> Provide notification of construction activities to affected Indigenous communities, landowners, and stakeholders along the Project corridor as required under Project permits, approvals, and agreements, including sharing approximate dates that work may be done in an area prior to commencing work in the area. The notification process will be developed in collaboration with affected Indigenous communities. Hydro One will work with First Nation communities to identify other factors of importance to quality of experience/sense of place in areas of use for traditional purposes, and through engagement develop appropriate mitigation or avoidance measures. As IK information becomes available, the information will be incorporated the next project planning and decision-making milestone, and appropriate avoidance or mitigation measures will be developed and implemented. Reduce effects on quality of experience/sense of place in areas of use for traditional purposes, by implementing the mitigation measures applied in other sections of this EA (i.e., Section 6.7 Air Quality, Section 6.9 Acoustic Environment and Section 7.4 Aesthetics). If there are concerns or issues raised by Indigenous community members, there will be a process implemented for Hydro One to discuss and address those issues. A Communications Plan will establish the communications process for both formal and informal communications with Indigenous communities, project stakeholders, and other organizations. <p>Operation and Maintenance Stage:</p> <ul style="list-style-type: none"> Provide notification of construction activities to affected Indigenous communities, landowners, and stakeholders along the Project corridor as required under Project permits, approvals, and agreements, including sharing approximate dates that work may be done in an area prior to commencing work in the area. The notification process will be developed in collaboration with affected Indigenous communities. Reduce effects on quality of experience/sense of place in areas of use for traditional purposes, by implementing the mitigation measures applied in other sections of this EA (i.e., Section 6.7 Air Quality, Section 6.9 Acoustic Environment and Section 7.4 Aesthetics). If there are concerns or issues raised by Indigenous community members, there will be a process implemented for Hydro One to discuss and address those issues. A Communications Plan will establish the communications process for both formal and informal communications with Indigenous communities, project stakeholders, and other organizations. 	<p>Net changes to cultural practices considering quality of experience/sense of place in areas of use for traditional purposes.</p>

7.7.11 Net Effects Characterization

7.7.11.1 Net Effects Characterization Approach

The effects assessment approach followed the general process described in Section 5.0 Environmental Assessment Approach.

Net effects are described using the significance factors identified in Table 5.6-2.

Changes to First Nations Rights, Interests and Use of Land and Resources are measured against the magnitude levels identified in Table 7.7-6.

Potential effects with no predicted net effect after implementation of the mitigation measures identified in Table 7.7-5 are not carried forward to the net effects assessment.

Table 7.7-6: Magnitude Effect Levels for First Nations Rights, Interests and Use of Land and Resources

Indicator	Negligible	Low	Moderate	High
Changes to use of land and resources for the current and traditional exercise of Indigenous rights considering: <ul style="list-style-type: none"> • area (ha) of unoccupied Crown land being converted to occupied Crown land; • availability of harvested resources (considering outcomes of assessments for wildlife, vegetation, fish); and • access (increased or decreased) to preferred harvesting areas (hunting, trapping, fishing and plant harvest). 	A change that is predicted to be within the range of baseline or guideline values, or within the range of natural variability	The effect is measurable but not expected to materially change opportunity for use of land and resources for the current and traditional exercise of Indigenous rights	The effect results in a potentially negative or beneficial change to opportunity for use of land and resources for the current and traditional exercise of Indigenous rights	The effect is expected to substantially interfere with or enhance opportunity for use of land and resources for the current and traditional exercise of Indigenous rights



Indicator	Negligible	Low	Moderate	High
Changes to cultural practices considering: <ul style="list-style-type: none"> • access to culturally sensitive, sacred or spiritual landscapes and sites; and • quality of experience/sense of place in areas of use for traditional purposes, including sensory disturbance through Project-related changes to air quality, acoustics, and visual landscape (aesthetics). 				

7.7.11.2 *Net Change in Area (ha) of Unoccupied Crown Land Converted to Occupied Land*

The Project will result in a net change of 2,071.6 ha of unoccupied Crown land as the Project footprint will directly overlap with Crown land, converting it to be occupied Crown land during the construction and operation and maintenance stages.

This is predicted to have a direct negative impact on use of the Crown land for the current and traditional exercise of Indigenous rights. Based on the area of unoccupied land available, this impact is expected to be of low magnitude (i.e., the effect is discernible but is not expected to materially change people’s land use). Reductions in availability would be experienced most heavily within the Project footprint, in the areas directly used for temporary workspaces and permanent infrastructure; thus, the geographic extent is the Project footprint as only the lands directly impacted by the Project footprint will be converted from unoccupied to occupied Crown land status.

The duration of effects on Crown land used for temporary workspaces, camps, and access roads will be short-term and the lands will be occupied and unavailable during the construction stage, after which they will be reclaimed and are expected to become available for use again. Crown land used for the permanent footprint (i.e., the ROW) and access roads would be considered occupied Crown land for the life of the Project (long-term).

The conversion of unoccupied Crown land to occupied land will be certain to occur.



7.7.11.3 Net Change in Availability of Harvested Resources

The Project is predicted to result in a net change to the availability of harvested resources during the construction and operation and maintenance stages, which has the potential to impact the use of land and resources for the current and traditional exercise of Indigenous rights.

The Project footprint will directly overlap with areas that are potentially used by wildlife, fish and plants that are harvested by members of First Nation communities. Project construction and operation and maintenance activities are also likely to cause sensory disturbance to these resources; therefore, these effects are predicted to be negative and may be both direct and indirect. The geographic extent of clearing will be local (i.e., affecting a few individuals that occupy areas near the construction activities within the LSA) and given the mobility of the wildlife and fish species, and the small relative area of disturbance for plant species, it is predicted that the magnitude of the effects will be negligible (i.e., a small measurable change that is predicted to be within the range of baseline or guideline values, or within the range of natural variability). This is because the Project footprint and area of potential impact compared to the area available for harvesting is relatively small, and although a net effect has been identified for species considered to be representative of and important to harvesting, those effects were not assessed to be significant in Section 6.4 (Vegetation and Wetlands), Section 6.5 (Wildlife and Wildlife Habitat), and Section 6.6 (Fish and Fish Habitat).

The duration of effects is expected to be short-term during the construction stage as they are primarily a result of temporary disturbance and not impacts to the availability of the species populations as a whole. Longer term, it is anticipated that the resources will return to the LSA and within the majority of the Project footprint; thus, the effects are considered reversible. While the effects may be continual during construction, they will be infrequent during the operation and maintenance stage because much of the Project footprint will be reclaimed maintenance activities will be infrequent.

With regard to likelihood, the effect has been assessed as probable (i.e., the effect is likely to occur), as it has not been confirmed with certainty that the resources are available, harvested, and will be impacted in the affected areas.

7.7.11.4 Net Change in Access to Preferred Harvesting Areas

The Project is predicted to result in a net change to access to preferred harvesting areas during the construction and operation and maintenance stages, which has potential to impact this use of land and resources for the current and traditional exercise of Indigenous rights.

Access restrictions to preferred harvesting areas by First Nations community members are expected to have direct negative effects; however, the creation of new access via permanent access roads and the transmission line ROW may be seen to have some positive effects as well over the long-term (i.e., increased access to preferred or new harvesting areas along the Project footprint).



It is anticipated that the magnitude of the effect will be negligible (i.e., a small measurable change that is predicted to be within the range of baseline or guideline values, or within the range of natural variability), given the temporary, short-term nature of the access restrictions, and the limited areas to be affected relative to the total land and resource use area affected in the LSA. As well, harvesters may be able to take detours and would be able to continue to access other harvesting areas that are not in proximity to the Project footprint. Project construction activities may temporarily reduce or limit access to certain portions of existing areas (i.e., local roads, or trails near the ROW) with intermittent, short-term closures; however, over the long-term, access is expected to increase with the permanent ROW and access roads.

Geographically, the effects are expected to be local (i.e., within the LSA) as access would primarily be restricted to the Project footprint, but such restrictions might limit access elsewhere in the LSA (e.g., if access requires crossing the new ROW). The access restrictions will be intermittent and temporary because the site-specific construction stage will be short-term and not be continuous in any location as Project construction will progress along the ROW in a staged approach. During the operations and maintenance stage, a longer-term increase in access, which have both positive and negative effects, is expected.

With regard to likelihood, the effect has been assessed as probable (i.e., the effect is likely to occur).

7.7.11.5 Net Change in Access to Culturally Sensitive, Sacred or Spiritual Landscapes and Sites

As indicated in Section 7.5, impacts to archaeological sites are predicted to be negligible during the construction, and operation and maintenance stages, with the implementation of mitigation measures; however, there is potential for changes to access to other culturally sensitive, sacred or spiritual landscapes and sites if they are lost or altered as a result of construction. As a result, there is a predicted net effect in changes to access to culturally sensitive, sacred or spiritual landscapes and sites.

This direct effect to access to culturally sensitive sites and landscapes is predicted to be negative in direction and low to moderate in magnitude. The geographic extent would be specific to the Project footprint and the duration is expected to be long-term, though the frequency of such effects is expected to be infrequent, as very few sites would be impacted once mitigation measures are implemented. The likelihood of such an effect is possible but not certain.

Continued engagement with Indigenous communities will ensure that if there is any further information provided about the location of sites, appropriate mitigation measures can be discussed and developed together.

With the implementation of mitigation measures, the net effect of a change to culturally sensitive, sacred or spiritual landscapes and sites is not predicted to represent a substantial interference in the continued opportunity for First Nations communities to be able to undertake



use of land and resources for the current and traditional exercise of Indigenous rights, and therefore is not predicted to be a significant net effect.

7.7.11.6 Net Change in Quality of Experience or Sense of Place

The Project is expected to have a net effect on the quality of experience/sense of place in areas of use for traditional purposes, including sensory disturbance through Project-related changes to noise, vibrations and changes to the visual landscape (aesthetics). These effects may result in changes to cultural practices.

These net effects on the quality of experience/sense of place in areas of use for traditional purposes is expected to both indirectly and directly affect cultural practices, depending on whether it discourages practices within certain areas or makes the practices less enjoyable or meaningful. In either scenario, the effects are predicted to be negative in direction. The magnitude of the effect is predicted to be low to moderate (i.e., the effect is discernable and may or may not result in a potentially negative change to land and resource use), and local to the area, based on an understanding that the aesthetic effects in particular extend beyond the Project footprint. While the effects of noise and vibrations will be short-term, the effects of the permanent infrastructure on the visual landscape will be long-term.

With regard to likelihood, the effect has been assessed as probable (i.e., the effect is likely to occur).



Table 7.7-7: Characterization of Predicted Net Effects

Criteria	Indicators	Net Effect	Direct/ Indirect	Direction	Magnitude	Geographic Extent	Duration/ Irreversibility	Frequency	Likelihood of Occurrence
Use of land and resources for the current and traditional exercise of Indigenous rights	Area (ha) of unoccupied Crown land being converted to occupied Crown land.	Net change in area of unoccupied Crown land converted to occupied Crown land.	Direct	Negative	Low	Project footprint	Short-term and long-term	Continual to Infrequent	Certain
Use of land and resources for the current and traditional exercise of Indigenous rights	Availability of harvested resources (considering outcomes of assessments for wildlife, vegetation, fish).	Net change in availability of harvested resources.	Direct and Indirect	Negative	Negligible to Low	Local	Short-term	Continual to Infrequent	Probable
Use of land and resources for the current and traditional exercise of Indigenous rights	Access (increased or decreased) to preferred harvesting areas (hunting, trapping, fishing, and plant harvest).	Net change in access to preferred harvesting areas.	Direct	Negative and Positive	Negligible to Low	Local	Short-term	Infrequent	Probable
Cultural Landscapes and Intangible Cultural Heritage	Access to culturally sensitive, sacred or spiritual landscapes and sites.	Net change in access to culturally sensitive, sacred or spiritual landscapes and sites.	Direct	Negative	Negligible to Moderate	Project footprint	Long-term	Infrequent	Possible to Probable
Cultural Landscapes and Intangible Cultural Heritage	Quality of experience/sense of place in areas of use for traditional purposes, including sensory disturbance through Project-related changes to air quality, acoustics and visual landscape (aesthetics).	Net change in quality of experience/sense of place in areas of use for traditional purposes, including sensory disturbance.	Direct and Indirect	Negative	Low to Moderate	Local	Short-term and Long-term	Periodic and Continual	Probable

7.7.11.7 Assessment of Significance

The assessment of significance of net effects of the Project is informed by the interaction between the significance factors, with magnitude, duration, and geographic extent being the most important factors. As set out in **Section 5.6.5**, a predicted net effect First Nations Rights, Interests and Use of Land and Resources criteria would be considered significant if it is assessed as:

- High magnitude;
- Medium-term to permanent in duration;
- Occurring at any geographic extent; and
- Representing a management concern.

To be considered significant, the effects would have to result in substantial interference in the continued opportunity for First Nations communities to be able to undertake use of land and resources for the current and traditional exercise of Indigenous rights.

Based on the assessment of the indicators for the two criteria (use of land and resources for the current and traditional exercise of Indigenous rights, and cultural landscapes and intangible cultural heritage), the net effects are not predicted to be high magnitude, will range from short-term to long-term, and will occur in the Project footprint and the LSA. With the implementation of mitigation measures, the net effects are not predicted to represent a substantial interference in the continued opportunity for First Nations communities to be able to undertake use of land and resources for the current and traditional exercise of Indigenous rights.

Hydro One notes that the characterization of net effects is an interpretation by Hydro One and their consultants, which has been informed by the input of communities shared through comments on the Draft EA. Hydro One recognizes that each Indigenous community is best positioned to provide context on how opportunities to undertake use of land and resources for the current and traditional exercise of Indigenous rights are taken.

Hydro One is committed to engaging with First Nations on potential refinements to the Project footprint and incorporation of site-specific mitigation in order to avoid or minimize impacts to the use of land and resources for the current and traditional exercise of Indigenous rights.

7.7.12 Cumulative Effects Assessment

In the assessment of Project's net effects, changes to First Nations rights, interests and use of land and resources from the Project are compared to current conditions. It is recognized that past development and other influences in the RSA have changed the availability and use of land and resources, as well as cultural practices, over time and that the degree of change or influence may vary across the landscape and by community.



This section evaluates how net effects from the Project identified in the preceding sections may overlap in time and space with the effects of other developments and activities that are expected to occur (i.e., cumulative effects) and if those effects could result in substantial interference in the use of affected lands and resources by First Nation communities for the current and traditional exercise of their Indigenous rights and interests. Future projects include reasonably foreseeable future developments (RFDs) defined in Section 9.0. The cumulative effects assessment is primarily qualitative, supported by quantitative data where available, completed at the regional scale and presented as a reasoned narrative describing the outcomes of cumulative effects for each criterion.

7.7.12.1 *Regional Context*

This assessment recognizes that what happens to lands in relation to past, current, and future land use and ecosystems, is of fundamental importance to Indigenous communities and the practice of rights, interests and use of land and resources. Where potential effects of the Project may act cumulatively with the effects of future activities, the effects are considered in the context of if or how the changes may fall within the flexibility or range in current practice. For example, if an area suitable for the harvest of blueberries may be affected by the Project and cumulatively with another development, understanding the potential availability of similar habitat within a similar area may provide context on the potential magnitude of an effect to harvesting. It is, however, recognized that the overlap between areas considered ecological suitable (e.g., considering quality and availability of plants, fish or wildlife desired for harvest), accessible (e.g., considering physical barriers or resources such as fuel, off-road vehicles, etc.), and safe (e.g., terrain, potential hazards, proximity to other developments, actual or perceived risk of contamination) as well as other elements of cultural context are factors in determining what lands are truly available for and considered appropriate or preferred by Indigenous communities for the practice of rights. The context in this section provides some indicators of how the natural environment and human development in the region may represent both opportunities for or pressures on the ability to accommodate or manage potential cumulative effects.

Development of the landscape in the region through a western archaeological lens is described in Section 7.5.5 of the archaeological assessment. This section reports evidence of human occupation beginning approximately 9,500 years ago, through use of the lands by small groups engaged in seasonal subsistence harvest, to the post-contact European exploitation of fur bearing and game animals, resulting in an increasingly settled lifestyle for Indigenous communities that was compounded by the Treaty System, the creation of reserves, and the introduction of the snowmobile in the 1960s. The unique history of each First Nation that may be affected by the Project influence the cultural context within which appropriate or preferred conditions for the practice of rights are established.

As defined in Table 7.7-2, the RSA defined for assessment of the criteria for First Nation Rights, Interest and Use of Land and Resources reflects the study area outlined in the ToR within which alternative routes including the preliminary Project footprint were identified and provided as a basis for IK study planning. For the First Nations engaged in the assessment of effects of the



Project, no specific limits on traditional use areas or traditional territory have been defined or shared, but it is recognized that the practice of rights, interests and use of land and resources for communities extend beyond the boundaries of the First Nation Rights, Interest and Use of Land and Resources RSA. While this RSA boundary identified is considered appropriate for the understanding of potential overlap between effects of the Project and those of future projects with similar effects that may overlap in time and space, general characterization of landscape the broader region is also shared for context and where it relates to criteria such as moose, for which regional effects are considered at a habitat level.

Forest Resource Inventory (FRI) information, available as a result of the province's effort to inventory forest resources across most of northern Ontario, is used to provide broad characterization of within the study areas. FRI ecosite data was mapped through various methods, a combination of aerial imagery interpretation via Digital Surface Models and stereo imagery analysis, and LiDAR completed between 2007 and 2011. The multi-analysis approach resulted in a variety of information, including vegetation types, heights and soil moisture, which has allowed for a *best estimate* of the ecosite type (MNR 2009).

Table 7.7-8 reports RFI landscape types to provide a broad characterization of the landscape within the region. As noted below, natural landscape types – primarily water and forest represent the primary land uses. Unclassified or disturbed areas include roads, utility corridors, aggregate areas, clearings and structures including camps. Section 6.4.5.1.1 of the vegetation and wetlands assessment describes additional efforts made to quantify more recent areas of disturbance in close proximity of the Project since the RFI was defined; however, the additional disturbance was not defined as substantial greater than the areas defined as 'unclassified' in the available RFI at the regional scale.

Table 7.7-8: Regional RFI Habitat or Landscape Types

General Habitat or Landscape Types	Area (ha) and % of total area within First Nation Rights, Interest and Use of Land and Resources RSA	Area (ha) in Unpatented Crown Land and % of total area of Unpatented Crown Land within First Nation Rights, Interest and Use of Land and Resources RSA
Built up areas		
Commercial / Industrial Unclassified	0.08%	0.01%
Constructed	1.41%	0.33%
Residential Unclassified	0.86%	0.07%
Utilities Unclassified	0.22%	0.13%
Open lands		
Bluff	0.00%	0.00%
Cliff	0.01%	0.01%
Field	0.25%	0.00%
Island	0.22%	0.25%



General Habitat or Landscape Types	Area (ha) and % of total area within First Nation Rights, Interest and Use of Land and Resources RSA	Area (ha) in Unpatented Crown Land and % of total area of Unpatented Crown Land within First Nation Rights, Interest and Use of Land and Resources RSA
Meadow	0.41%	0.33%
Rock Barren	0.02%	0.02%
Shoreline	0.00%	0.00%
Shrub	0.26%	0.03%
Mineral Barren	0.19%	0.07%
Water and Wetlands		
Water	17.45%	20.50%
Bog	0.08%	0.09%
Fen	1.37%	1.48%
Marsh	0.01%	0.01%
Meadow Marsh	1.63%	1.43%
Open Bog	0.01%	0.01%
Swamp	0.05%	0.06%
Thicket Swamp	0.99%	0.79%
Treed Bog	0.02%	0.02%
Treed Fen	1.92%	2.17%
Treed Swamp	7.94%	8.11%
Forest		
Coniferous Forest	37.33%	41.28%
Deciduous Forest	25.92%	21.25%
Mixed Forest	1.35%	1.56%
Total Area (ha)	759,881.81	635,539.15

Section 7.5.5 identifies lumber and mining industries as prominent in the development of the landscape of northern Ontario from the mid-19th century to the present day. Current presence on the land of settlements, infrastructure, commercial and industrial developments influence the conditions for and perceptions of ecological suitability, accessibility and safety.

Section 7.1 describes and maps administrative and legislative boundaries relevant to current uses of land in the region that demonstrate how developments and linear features cross natural areas on the land. The geographic distribution of features demonstrates both opportunities for access (e.g., presence of road and trails) and pressures through disturbance or fragmentation that may limit the availability or quality of natural area for other uses (e.g., presence of industrial developments). Types of land use development and mapping showing the distribution on the land currently include:



- **Presence of settlements including on reserve lands, and infrastructure** (Figure 7.1.3-3 Land Use Planning): including municipalities and designated places, private and Crown land uses areas, utility lines, road and rail. These features both define areas of potential land use opportunities including undesignated Crown land with access, and barriers to land use including developed lands.
- **Protected Areas and Outdoor Tourism and Recreational Land Use** (Figure 7.1.7-2 Protected Areas and Outdoor Tourism and Recreational Land Use; Figure 7.1.7.8-2 water crossings; Figure 7.1.6-4 Hunting, trapping, fishing units/zones): These features both define areas of potential land use opportunities including protected areas such as provincial parks, and potential barriers to land use where recreational activities may occur.
- **Forestry features:** (Figure 7.1.9-3 shows the scale and distribution of harvest areas planned for 2021-2022). Forestry, a past, existing and future activity in the RSA, takes place on provincial Crown land and private forest lands. Provincial Crown lands make up a large majority of the operational forest area and are managed under long-term SFLs. The SFL holders are responsible for forest management activities in the licensed area including forest planning, harvesting, silviculture and regeneration. There are six FMUs that overlap the Project footprint including the Wabigoon Forest, the Dog River-Matawin Forest, the English River Forest, the Boundary Waters Forest, the Dryden Forest, and the Lakehead Forest. FMUs that overlap parts of the Project footprint are licensed to Resolute FP Canada Inc., Domtar Inc., Dryden Forest Management Company Ltd., and Greenmantle Forest Inc.

These features both define areas of potential land use opportunities where access may be created, and potential barriers to land use where active harvesting may occur. Section 6.4.10.3 provides a summary of harvest plans per FMU.

- **Mineral and aggregate resource activities:** (Figure 7.1.4-4; Figure 7.1.5-2).

These features define areas representing potential barriers to land use opportunities, both physically and perceived with respect to potential for avoidance.

Sections 6.4, 6.5 and 6.6 characterize potential for cumulative effects for criteria, including representative traditional use plants, harvested wildlife and fish, considering RFDs within the study areas applicable to the species considered. Cumulative effects include the effects from the Project in addition to the effects by past, present and RFDs, where calculated change considers RFDs with footprints available at the time of reporting. The findings of these assessments are summarized below, where the potential for cumulative effects to harvested plants, wildlife and fish affect the potential availability of species for harvest (and ability to access).



Summary of cumulative effects to habitat for traditionally used plants

Section 6.4.10.8 of the vegetation and wetlands assessment looks at the potential for cumulative effects to areas of habitat that may support traditionally used plants. It is noted that RFDs that did not have footprints available at the time of analysis and reporting (Section 9; Table 9.9-1; Table 6.4-38) are expected to contribute to decreases in the quantity of plants of traditional use habitat. This assessment notes a potential loss of 2,073 ha (0.48% change of baseline characterization) to plants of traditional use habitat in the vegetation and wetlands RSA (which represents a 5 km buffer from the Project footprint). Calculated change by general habitat type within the RSA is provided in Table 6.4-38. Largest predicted loss by percent change is meadow general habitat type with a 12.2% change from baseline characterization and an absolute loss of 2,102 ha in the vegetation and wetlands RSA. The Project footprint will be allowed to naturally revegetate with compatible species and will result in creation of meadow habitat. The RFDs are not expected to disturb the least common general habitat type bog in the vegetation and wetlands RSA. The predicted loss of plants of traditional use habitat in the RSA that would result in localized changes in habitat distribution from RFDs are effects that are assumed to be permanent as reclamation plans are not available for RFDs. The distribution of plants of traditional use habitat may be further affected because of changes to hydrology and drainage patterns associated with future mining activities. New development may lead to a greater exposure of ecosystem edges to disturbance and could result in increased potential for invasion by noxious weed species and invasive species. Habitat for most types of plants of traditional use considered in the vegetation and wetlands RSA are well distributed and therefore, despite individual proximity to disturbance, their populations in the RSA should remain largely intact. However, invasive species may become more prevalent near other developments in the RSA.

This assessment also notes that future forestry activities would change the availability, distribution and composition of plants of traditional use habitat in the RSA. The goal for Forest Management Plans (FMPs) is to reach target levels for forest diversity and composition, wildlife habitat for provincially significant species, and locally featured species and species at risk. Overall, the FMPs seek to achieve a level of forestry operation and harvest that meets market demand while incorporating sustainable forest practices and environmental values to meet a desired forest composition. The Boundary Waters FMP, Dog River-Matawin FMP, Dryden FMP, English River FMP, Lakehead FMP and Wabigoon FMP are further discussed in Section 6.4.10.3 for upland ecosystems and in Section 6.4.10.4 for wetland ecosystems.

As well, changes in habitats host to plant species of traditional use due to climate change are qualitatively discussed, as well as summarized for all boreal ecosystems in Section 6.4.10.8. Plants of traditional use habitat quantity may be negatively affected by climate change as many plant species of traditional use prefer wetland habitats; considered to be one of the ecosystems most sensitive to predicted climate changes (ECCC 2017). Increases in temperature, increases in evapotranspiration and decreases in surface water flow could cause wetland habitats to change in the landscape by reducing their area coverage, for example. The reliance on precipitation to maintain function in bogs makes them especially vulnerable to climate change



and it is noted that diversity of plants in wetlands is linked to water level fluctuations, so predicted decreases in water levels may lead to concerns for species diversity. The combination of environmental stress (i.e., higher temperature) paired with environmental disturbances (i.e., increase in the occurrence of fire) by climate change are expected to reduce the amount of area covered by the boreal forests in its southern boundary of their present-day distributions (Price et al. 2013, Thompson et al. 1998, Varrin et al. 2007). Species that are adapted to regenerate following fire such as pine and aspen are predicted to increase in the landscape leading to a homogenization of species on the landscape (Thompson et al. 1998, Iverson and Prasad 2001, Varrin et al. 2007). Plant species of traditional use such as eastern white cedar, highbush cranberry, Labrador tea, sweetgrass and wild rice may be negatively impacted. Drier habitat conditions may favor other plant species of traditional use, such as paper birch, showy mountain ash, chokecherry, common bearberry, early lowbush blueberry, saskatoon berry, Canada wild ginger, common yarrow and prickly rose. Plant species of traditional use habitat quantity could be further reduced in the RSA and beyond the RSA due to climate change, although the extent of habitat reduction is not known.

Summary of cumulative effects to habitat for wildlife

Section 6.5.10 of the wildlife and wildlife habitat assessment looks at the potential for cumulative effects to areas of habitat that may support wildlife species. Outcomes of the assessment for a subset of species, including wildlife noted for inclusion by Indigenous communities are summarized here, specifically: ungulates (moose), furbearers (such as American marten, beaver, gray wolf), herpetofauna (snapping turtle), raptors and marshbirds (trumpeter swan). The summary considers the study areas defined for each species in the wildlife and wildlife habitat assessment (Section 6.5.4). Estimates of habitat loss are anticipated to be conservative as entire lease areas for mining projects considered were assumed to be disturbed in consideration of cumulative effects.

Ungulates (Moose): Past and existing activities have negatively affected habitat availability, habitat distribution, and survival and reproduction of moose in the moose and gray wolf RSA. Aerial surveys conducted in by the Ontario Government between 1975 and 2023 indicate moose populations in the Project study areas are declining. Moose display life history traits (e.g., high reproductive and dispersal rates, ability to use many types of habitats) that provide flexibility to adapt to different ecozones, the rate of increasing landscape alteration by humans, and climate change. Moose are primarily threatened by direct and indirect habitat loss, altered predator prey relationships, and hunting. Habitat is not a limiting factor for moose at baseline or considering cumulative effects as moderate to high suitability habitat covers 46.8% of the moose RSA at baseline and 46.6% after consideration of RFD projects (change of 0.2%). The RFDs are not anticipated to result in changes to moose movements or population connectivity, relative to baseline as disturbances are either point source, linear disturbances that parallel existing disturbances, or linear corridors that are narrower than the width reported to inhibit moose movements (Joyal et al. 1984). Additionally, it is assumed the RFDs will use mitigation measures that avoids and limits effects to moose survival and reproduction.



Climate change is predicted to result in drier conditions that lead to more frequent and severe fires in the Ontario boreal forest (Thompson et al. 1998, Colombo 2008, Nituch and Bowman 2013). It is anticipated that forage availability may decrease in the first few years post-fire and lead to declines in recruitment. However, burned forest may become highly suitable for moose from 10 to 26 years post-burn as forest regeneration provides optimal forage (Nelson et al. 2008). Fire suppression practices in older forest stands in Ontario began 30 years ago (Carleton 2001), so continued fire suppression may limit effects from increased wildfire frequency and intensity in the future. As such, changes to the amount and quality of habitat in the RSA are uncertain. Climate warming is predicted to result in greater overlap between moose and white-tailed deer (Thompson et al. 1998, Murray et al. 2006), which may increase moose mortality through higher predation risk from wolves or infestation of meningeal brain worm (Thompson et al. 1998). The magnitude and extent of these changes is unknown because there is high uncertainty regarding the potential effects of climate change; predictions are based on simulations that can be highly variable and many scenarios are possible.

The combined evidence concerning the cumulative changes to moose habitat availability, distribution, and survival and reproduction in the moose and gray wolf RSA suggests that moose populations would likely continue to maintain their current state in the moose and gray wolf RSA, although possibly at a lower abundance. Reductions of habitat availability, distribution, and survival and reproduction are not expected to affect the ecological effectiveness of moose in or beyond the moose and gray wolf RSA.

Furbearers (American marten, beaver): Past and existing activities have negatively affected habitat availability, habitat distribution, and survival and reproduction of American marten and of beaver in the RSA. However, American martens are adaptable and resilient to natural and human-related disturbances and associated changes in habitat availability and distribution and this species is still common and widespread throughout central and northern Ontario. Similarly, beaver populations in northern Ontario has rebounded since the end of the fur trade. Habitat is not a limiting factor for American marten as moderate to high suitability habitat covers 22.2% of the RSA at baseline and 22.1% after consideration of cumulative effects (change of 0.1%).

The RFDs are anticipated to result in small, direct changes to marten habitat availability, habitat distribution, movements, and population connectivity relative to baseline. Removal of 858 ha or 0.8% of moderate to high suitability habitat at the RSA scale, or the equivalent of one marten home range, is anticipated to have a negligible effect on American martens in the RSA. Current forestry practices in Ontario are aimed at maintaining texture and pattern targets for mature and old forest that are suitable for marten, as well as reducing habitat fragmentation; these factors are likely to improve marten habitat in the RSA compared to baseline. Overall, climate change is anticipated to have a negative effect on marten habitat availability, habitat distribution, and reproduction and survival but effects are uncertain. Therefore, the combined evidence concerning the cumulative changes to American marten habitat availability, distribution, and survival and reproduction indicates that marten populations would continue to be self-sustaining in the RSA.



The RFDs including the Project, are anticipated to result in small, direct changes to beaver habitat availability, after implementation of mitigation, relative to the baseline. Removal of 509 ha or 1.3% of suitable habitat for beaver is anticipated to have negligible effects on beaver at the RSA scale after consideration of cumulative effects; cumulative effects are not anticipated for beaver habitat distribution or survival or reproduction. Climate change is anticipated to have a positive effect on beaver habitat availability, habitat distribution, and reproduction and survival. Therefore, the combined evidence concerning the cumulative changes to beaver habitat availability, distribution, and survival and reproduction indicates that beaver populations would continue to be self-sustaining in the RSA.

Herpetofauna (snapping turtle): RFDs within the wildlife and wildlife habitat RSA have the potential to reduce herpetofauna habitat availability through direct habitat loss and avoidance due to sensory disturbance, however, negative effects from changes to habitat availability from direct vegetation removal from RFDs are expected to be of small magnitude. The RFDs in the RSA have the potential to increase herpetofauna mortality through collisions with vehicles, with potential expected to be highest where roadways are within close proximity to wetlands and large waterbodies, particularly if they bisect these features. Implementation of mitigation measures to reduce the risk of vehicle collisions is anticipated to mitigate herpetofauna injury and mortality. Increased temperatures associated with climate change could have both positive and negative effects on herpetofauna in the RSA. Reductions of habitat availability, distribution, and survival and reproduction are not expected to affect the ecological effectiveness of herpetofauna.

Raptors (bald eagle): RFDs, including the Project, are predicted to produce measurable changes to habitat availability, distribution and survival and reproduction for bald eagles. The Project footprint and other RFDs would remove 2,151 ha (0.98%) of moderate to high suitability habitat in the wildlife and wildlife habitat RSA. This relates to a reduction in predicted abundance in the RSA by the equivalent of up to three individuals. It is anticipated this calculation may overestimate effects, considering that RFDs will be required to implement mitigation measures to limit effects on bald eagle populations. The Project and RFDs have the potential to reduce bald eagle habitat availability and distribution in the RSA through direct habitat loss and avoidance due to sensory disturbance. Some individuals may adapt or habituate to sensory disturbance. Changes in habitat distribution will have effects on movement and habitat use, but bald eagle populations that overlap with the RSA should remain well connected because this species is highly mobile. Overall, the small changes in habitat availability and distribution (and associated predicted reduction in abundance) should have little detectable influence on the abundance of bald eagle that overlap the RSA.

Climate change is predicted to have varying influences on habitat availability, habitat distribution and survival and reproduction of bald eagles. In general, bald eagles are thought to be less vulnerable to climate change than other species with more specialized requirements and more limited distributions (Armstrong 2014). The combined evidence concerning the cumulative effects on bald eagle from changes in habitat availability, distribution, and survival and



reproduction in the indicates that populations would continue to be self-sustaining and ecologically effective.

Marshbirds (trumpeter swan): RFDs, including the Project, are predicted to produce measurable changes to habitat availability, distribution and survival and reproduction for marshbirds, represented by trumpeter swans. The Project footprint and other RFDs may remove 499 ha (0.4%) of habitat defined in the wildlife assessment as moderate to high suitability with the wildlife criteria RSA. The amount of habitat loss predicted in is likely an overestimate as the entire lease boundaries for future mine projects were used as the disturbance footprint and it is anticipated that RFDs will be required to implement mitigation measures to limit effects.

The Project and RFDs have the potential to reduce trumpeter swan habitat availability and distribution in the RSA through direct habitat loss and avoidance due to sensory disturbance. Some individuals may adapt or habituate to sensory disturbance. Changes in habitat distribution will have effects on movement and habitat use, but trumpeter swan populations that overlap with the RSA should remain well connected because this species is highly mobile. Overall, the small changes in habitat availability and distribution (and associated predicted reduction in abundance) should have little detectable influence on the abundance of trumpeter swan that overlap the RSA. Climate change is predicted to have varying influences on habitat availability, habitat distribution and survival and reproduction of trumpeter swan.

Summary of cumulative effects to habitat for fish

Section 6.6 qualitatively identifies potential for cumulative effects to fish and fish habitat through physical alteration of waterbodies, changes in riparian and in water vegetation, channel morphology; cause changes to water and sediment quality and quantity (e.g., may alter drainage patterns and increase or decrease drainage flows and surface water levels, which could affect fish habitat quantity and quality etc.). Cumulative effects identified were related to RFDs including culvert and bridge rehabilitation and replacement where work is anticipated to occur below the high water mark (HWM), mining activities including pit and mine excavations, blasting, mine dewatering, access roads and mine water supply, and forestry activities including removal of forests, riparian and wetland habitats, as well as the development of access roads, camps and storage facilities. Considering mitigation measures similar to those applicable to the Project that will be required in implementing the RFD projects and the scale of activities, the contribution of the Project and other RFD on fish and fish habitat in the RSA is not anticipated to have a cumulative effect on the overall functionality of fish and fish habitat as they currently exist based on the predicted characterization of the cumulative effects.

Outcomes of the cumulative effects assessments of change to vegetation and wetlands, wildlife and fish predict that populations in the applicable RSA areas would continue to be self-sustaining and ecologically effective, reflecting areas of high-quality natural habitat present in the region. Ecological suitability and to access to harvest areas will continue to change into the future. The rate of change may be influenced by climate change and geographic variation in types and rates of development, resulting in variable levels of change and effect by region.



7.7.12.2 Reasonably Foreseeable Developments

In addition to assessing the net environmental effects of the Project, which considered past and present developments, this assessment also evaluates and assesses the significance of net effects from the Project that overlap temporally and spatially with effects from other reasonably foreseeable future developments (RFDs) and activities (i.e., cumulative effects).

For a criterion that has identified net effects, it is necessary to determine if the effects from the Project interact both temporally and spatially with the effects from one or more past, present, or RFD or activities, since the combined effects may differ in nature or extent from the effects of individual Project activities. Where information is available, the cumulative effects assessment estimates or predicts the contribution of effects from the Project and other developments on the criteria, in the context of natural changes in the environment.

For this assessment, the net effects characterized in Table 7.7-7 are carried forward to a cumulative effects assessment if they have a non-negligible magnitude. Net effects with this characterization are most likely to interact with other RFDs.

Based on this assessment, the following net effects listed in Table 7.7-7 are carried forward to the cumulative effects assessment:

- Net change in area (ha) of unoccupied Crown land converted to occupied Crown land.
- Net change in availability of harvested resources.
- Net change in access to preferred harvesting areas.
- Net change in access to culturally sensitive, sacred or spiritual landscapes and sites.
- Net change in quality of experience/sense of place in areas of use for traditional purposes.

The cumulative effects assessment is primarily qualitative and presents a reasoned narrative describing the outcomes of interacting cumulative effects for First Nation Rights, Interest and Use of Land and Resources.

A list of the RFDs that were considered for this EA are presented in Section 9.0, Table 9.0-1. Of these projects, the RFDs listed in Table 7.7-9 were identified as being probable to occur within the RSA and, therefore, have potential to have net effects within the RSA.



Table 7.7-9: Reasonably Foreseeable Developments that Overlap and Interact with the Regional Study Area

ID	Project	Description	Spatial Overlap of Net Effects	Temporal Overlap of Net Effects	Included in Cumulative Effects Analysis
6	McIntyre Creek Culvert rehabilitation	Culvert rehabilitations at McIntyre Creek, 1 km west of Highway 102, Thunder Bay, and Wild Goose Creek, 6 km east of Highway 527, Shuniah.	Yes	Yes	Yes
7	Paved shoulders, Resurfacing Highway 11	Adding paved shoulders and resurfacing 35.3 km of Highway 11, starting 6.0 km east of Highway 102.	Yes	Yes	Yes
8	Blind Creek culvert rehabilitation	Culvert rehabilitation at Blind Creek, 7 km east of Highway 527, Shuniah.	Yes	Yes	Yes
9	McVicars and Corbett Creek culverts rehabilitation	Rehabilitation of McVicars Creek culvert, 6 km west of Hodder Ave, and Corbett Creek culvert, 5 km west of Highway 130, Thunder Bay.	Yes	Yes	Yes
10	John Street culvert replacement	Replacement of the John Street culvert, west of Highway 11/17, Thunder Bay.	Yes	Yes	Yes
12	Hwy 17 resurfacing	Resurfacing of Highway 17 west, west of Highway 72, Dinorwic.	Yes	Yes	Yes
13	Osaquan, Melgund, and Shoshowae Creek culverts, rehabilitation	Rehabilitation of Osaquan Creek culvert, 8 km west of Ignace, Melgund Creek culvert, 56 km west of Ignace, and Shoshowae Creek culvert, 10 km west of Dryden.	Yes	Yes	Yes
17	Highway 11, 11B resurfacing, paved shoulders	Resurfacing and adding paved shoulders to Highway 11B, Atikokan.	Yes	Yes	Yes
18	Highway 11 resurfacing, paved shoulders	Resurfacing and adding paved shoulders to Highway 11, from Oliver Road, Kakabeka to Shabaqua.	Yes	Yes	Yes
19	Highway 102, resurfacing	Resurfacing Highway 102 west of Highway 589 to Highway 11/17, Thunder Bay.	Yes	Yes	Yes



ID	Project	Description	Spatial Overlap of Net Effects	Temporal Overlap of Net Effects	Included in Cumulative Effects Analysis
20	CPR Kaministiquia and CNR overheads, bridge rehabilitation and bridge removal	Rehabilitation and removal of CPR overhead Kaministiquia River bridge and CNR overhead bridge, 4 km east of Highway 17, Sistonen's Corner.	Yes	Yes	Yes
21	Seine River Bridge, rehabilitation	Rehabilitation of the Seine River bridge, 21 km north of Highway 11B, Atikokan.	Yes	Yes	Yes
22	Turtle and Little Turtle River bridges, rehabilitation	Rehabilitation of Turtle River bridge, 44 km south of Highway 17, Atikokan, and Little Turtle River bridge, 79 km south of Highway 17, Atikokan.	Yes	Yes	Yes
23	Revell River No. 3 Bridge, rehabilitation	Rehabilitation of the Revell River No. 3 bridge, 1 km east of Highway 622, Ignace.	Yes	Yes	Yes
24	Treasury Metals Inc. Goliath Gold Project	Construction of one open pit mine with underground development, a tailings storage facility, waste rock storage, overburden storage, low-grade stockpile, a 115-kV transmission line, and on-site electrical substation. The site is 15 km east of Dryden and 5 km north of Wabigoon. Operation is anticipated to be 12 years.	Yes	Yes	Yes
25	Rehabilitation of Steep Rock Mine	Stabilization and remediation of the former Steep Rock Mine, including a plan for enhanced natural recovery that will increase the size of Steep Rock Lake in the coming decades.	Yes	Yes	Yes



ID	Project	Description	Spatial Overlap of Net Effects	Temporal Overlap of Net Effects	Included in Cumulative Effects Analysis
29	Nuclear Waste Management Organization (NWMO) Potential deep geological repository site	Preliminary assessments by Nuclear Waste Management Organization are underway near Ignace to identify suitable areas for a deep geological repository site for nuclear waste. Currently no decision between choosing the Ignace location or a location in South Bruce, Bruce County.	Yes	Yes	Yes
30	Agnico Eagle Hammond Reef Gold Mine	Agnico Eagle Mines Limited has proposed the construction, operation, decommissioning and abandonment of a new open-pit gold mine. Mining would occur for 11 years, with an ore production capacity of 60,000 tonnes per day. The mine is located outside of the RSA; however, the access road and transmission line cross the RSA.	Yes	Yes	Yes
31	Commercial Forestry	Planned forestry harvest activities and roads derived from Forest Management Plans.	Yes	Yes	Yes

CNR = Canadian National Railway; MNRF = Ministry of Natural Resources and Forestry.

Culvert Rehabilitation and Highway Resurfacing Projects

With the exception of RFD IDs 24, 25, 29, 30 and 31, the RFDs listed in Table 7.7-9 involve culvert rehabilitations and highway resurfacing for existing infrastructure. These projects may act cumulatively with potential Project changes to wildlife and fish habitat, potentially acting cumulative with change to availability of harvested resources, access to preferred harvesting areas, and/or change in quality of experience/sense of place in areas of use for traditional purposes, including sensory disturbance.

Treasury Metals Inc. Goliath Gold Project

The RFD ID 24 (Goliath Gold Project) involves the construction, operation and decommissioning of an open pit and underground gold mine located 20 km east of the City of Dryden. Most of the properties associated with the Goliath Gold Complex have been privately owned since around 1900 and have been acquired by Treasury Metals by means of private purchase agreements. Portions of these private land parcels will be developed for the Goliath Gold Project.



The Project, including the ROW and access roads, will cross the private properties owned by Treasury Metals and will require additional changes to the land use within these private parcels. Hydro One will continue to engage with Treasury Metals regarding land rights. The Goliath Gold Project is included within the cumulative effects analysis as there is potential for spatial and temporal overlap of net effects between this RFD and the Project that include changes to availability of harvested resources, change in access to preferred harvesting areas, and/or change in quality of experience/sense of place in areas of use for traditional purposes, including sensory disturbance.

Agnico Eagle Hammond Reef Gold Mine

The RFD ID 30 Agnico Eagle Hammond Reef Gold Mine includes the proposed construction, operation, decommissioning and abandonment of a new open-pit gold mine. Mining would occur for 11 years, with an ore production capacity of 60,000 tonnes per day. The mine is located outside of the RSA; however, the access road and transmission line cross the Project RSA. The Project is included within the cumulative effects analysis as there is potential for spatial and temporal overlap of net effects between this RFD and the Project that may include changes in access to preferred harvesting areas, and/or quality of experience/sense of place in areas of use for traditional purposes.

Rehabilitation of Steep Rock Mine

The RFD ID 25 (Rehabilitation of Steep Rock Mine) involves the stabilization and remediation of the former Steep Rock Mine site just north of Atikokan, including the potential raising of water levels in the mine pit areas which will increase the size of Steep Rock Lake. It is expected that the former mine pit water levels will take several decades to reach their static elevation, so the cumulative effects assessment would only consider net effects identified to occur during Project operations and maintenance.

Although the MNRF plans to engage with potentially affected groups as appropriate throughout rehabilitation efforts, it is possible that the project may affect the use of Crown and/or private lands dependant on the final pit lake elevation. The Project is included within the cumulative effects analysis as there is potential for spatial and temporal overlap of net effects between this RFD and the operations and maintenance of the Project that may include changes in access to preferred harvesting areas, and/or quality of experience/sense of place in areas of use for traditional purposes.

Lac des Mille Lacs First Nation shared concern over the water quality around Steep Rock Lake due to past mining activities in the area, noting acid leaching from tailings piles and stability of man-made dams in the area as environmental concerns to fish and medicinal plants.

Potential Deep Geological Repository Site

The Nuclear Waste Management Organization (NWMO) is currently investigating two areas for a potential deep geological repository site including the Ignace and Bruce County areas. At this stage, it is unknown which area will be selected and the final location of the site within each respective area. If the Ignace location is selected, additional changes to the current land use will



be required to accommodate the facility including the conversion of Crown land to private land. Therefore, this RFD is included within the cumulative effects analysis as there is potential for spatial and temporal overlap of net effects between this RFD and the operations and maintenance phase of the Project that include changes to Crown lands, and possibly changes to availability of harvested resources, change in access to preferred harvesting areas and/or cultural sites, and quality of experience/sense of place in areas of use for traditional purposes.

Commercial Forestry

The RFD ID 31 (commercial forestry) involves overall general commercial forestry activities that take place within the RSA. This includes activities that may take place in the Boundary Waters Forest (includes the Crossroute-Sapawe Forest), the Dog River-Matawin Forest, the Dryden Forest, the English River Forest, the Lakehead Forest and the Wabigoon Forest. The Lakehead Forest is within the Robinson-Superior Treaty Area. Dog River-Matawin Forest overlaps both the Robinson-Superior Treaty and Treaty #3 Area. Boundary Waters Forest, the Dryden Forest, the English River Forest, and the Wabigoon Forest are within the Treaty #3 area (see Figure 7.1.9-3).

Commercial forestry operations occurring throughout forest management areas are included within the cumulative effects analysis as there is potential for spatial and temporal overlap of net effects between this RFD and the Project that may include changes to availability of harvested resources (including plants, wildlife, fish), change in access to preferred harvesting areas and/or cultural sites and quality of experience/sense of place in areas of use for traditional purposes.

Lac des Mille Lacs First Nation shared that the most prevalent wildlife concern amongst community members who have participated in the Lac des Mille Lacs First Nation Land Use, Occupancy, and Traditional Knowledge Study is in regard to the yearly application of herbicides in current forest management, and vegetation management practices, noting that “Elders and community members have expressed concern over chemical applications causing animals to become sick with cancer and cysts, small mammals being killed from herbicide runoff, a decrease in the amount of food and medicinal plants, a decrease in insects, especially bees, concerns for the health of those who harvest from the land, and overall decreased biodiversity” (Lac des Mille Lacs 2023).

As noted in Section 7.1, the Project footprint overlaps very small percentages of the FMU’s crossed: Wabigoon FMU (0.2%), the Dog River-Matawin FMU (0.1%), the Boundary Waters FMU (0.1%), the Dryden FMU (0.2%), and the Lakehead FMU (0.1%) (Table 7.1-20 Forest Management Units and Harvest Area in the Study Areas). The Project overlaps only 0.01% of lands located within the English River FMU. Direct effects to the Black Forest FMU are not anticipated as it is not overlapped by the Project footprint; however, indirect effects may occur as this FMU is located within the LSA/RSA.



Summary

A summary of the potential cumulative effects on change in area of unoccupied Crown land converted to occupied Crown land, changes to availability of harvested resources, change in access to preferred harvesting areas, change in access to culturally sensitive, sacred or spiritual landscapes and sites, and change in quality of experience/sense of place in areas of use for traditional purposes (as a result of changes to visual aesthetics or noise) for RFDs is provided in Table 7.7-10.

Table 7.7-10: Summary of Cumulative Effect Interactions for First Nations Rights, Interests and Use of Land and Resources

Project/Activity	Potential Cumulative Effect	Rationale for Potential Cumulative Effect
ID # 6-10, 12-13, 17-23: Culvert Rehabilitation and Highway Resurfacing Projects	<p>Change in access to preferred harvesting areas.</p> <p>Change in access to culturally sensitive, sacred or spiritual landscapes and sites.</p> <p>Change in quality of experience/sense of place in areas of use for traditional purposes.</p>	<p>Disturbance to traffic and within work areas for construction may act cumulative with Project activities that affect access to harvest areas or cultural sites, or result in change in quality of experience/sense of place in areas of use for traditional purposes.</p>
ID # 24: Treasury Metals Inc. Goliath Gold Project	<p>Change in availability of harvested resources.</p> <p>Change in access to preferred harvesting areas.</p> <p>Change in quality of experience/sense of place in areas of use for traditional purposes.</p>	<p>Areas of land use for harvest (including berries) and potential access to harvest areas shared by First Nations are overlapped where the Project footprint crosses the Goliath Gold Project.</p> <p>Potential visibility of Project elements and Project-related construction disturbance (e.g., industrial traffic, dust) in combination with potential disturbance through noise from Goliath Gold project activities, may result in change in quality of experience/sense of place in areas of use for traditional purposes.</p>



Project/Activity	Potential Cumulative Effect	Rationale for Potential Cumulative Effect
ID # 25: Rehabilitation of Steep Rock Mine	<p>Change in access to preferred harvesting areas.</p> <p>Change in quality of experience/sense of place in areas of use for traditional purposes.</p>	<p>The rehabilitation of Steep Rock Mine will result in the potential raising of water levels to the final end pit lake elevation (described below). This may disrupt areas currently used for access to areas of harvest or change the experience/sense of place, resulting in avoidance behaviours given the visual change on the landscape. These changes may overlap with areas that may be avoided in vicinity of the operating ROW or maintenance activities due to change in quality of experience. Project effects are predicted to be limited within the LSA.</p>
ID # 29: Potential deep geological repository site	<p>Change in area of unoccupied Crown land converted to occupied Crown land.</p> <p>Change in availability of harvested resources.</p> <p>Change in access to preferred harvesting areas.</p> <p>Change in access to culturally sensitive, sacred or spiritual landscapes and sites.</p> <p>Change in quality of experience/sense of place in areas of use for traditional purposes.</p>	<p>If the Wabigoon Lake Ojibway Nation – Ignace area location is selected, conversion of Crown land to private land is expected and will result in potential loss of availability of land for use, and change the quality of experience/sense of place in areas of use for traditional purposes.</p> <p>While it is expected that NWMO will continue to engage with Indigenous communities, to reduce potential for effects to harvested resources, cultural sites and access to sites for cultural practices, there is potential for cumulative effects where effects overlap with Project effects within the LSA to quality of experience/sense of place in areas of use for traditional purposes.</p>
ID # 30: Agnico Eagle Hammond Reef Gold Mine	<p>Change in access to preferred harvesting areas.</p> <p>Change in access to culturally sensitive, sacred or spiritual landscapes and sites.</p> <p>Change in quality of experience/sense of place in areas of use for traditional purposes.</p>	<p>Development and use of road to access the mine may act cumulative with Project activities that affect access to harvest areas or cultural sites, or result in change in quality of experience/sense of place in areas of use for traditional purposes.</p>



Project/Activity	Potential Cumulative Effect	Rationale for Potential Cumulative Effect
ID # 31: Commercial Forestry	Change in availability of harvested resources. Change in access to preferred harvesting areas. Change in access to culturally sensitive, sacred or spiritual landscapes and sites. Change in quality of experience/sense of place in areas of use for traditional purposes.	Ongoing forestry activities including active clearing or development of access may interact with the Project during construction, and operations and maintenance result in change availability in harvested resources (plants, wildlife or fish), potential change in access to preferred harvesting areas, potential change in access to culturally sensitive, sacred or spiritual landscapes and sites and change in quality of experience/sense of place in areas of use for traditional purpose in areas of harvest or along access roads with the RSA. While it is expected that Sustainable Forest Licence (SFL) holders will continue to engage with Indigenous communities to reduce potential for effects to harvested resources, cultural sites and access to sites for the exercise of rights, there is potential for cumulative effects where effects overlap with short-term changes in access during construction or areas that may be avoided in vicinity of the operating ROW or maintenance activities due to change in quality of experience.

7.7.12.3 Cumulative Effects Characterization

Cumulative effects may occur where the Project and other RFD both cause similar net effects within the area where Project effects may occur.

As discussed in the previous section, cumulative net effects to change of area of Crown lands from unoccupied to occupied may occur in combination with RFDs should the NWMO DGR ultimately be located in the Ignace area. Change in availability of harvested resources, change in access to preferred harvesting areas, change in access to culturally sensitive, sacred or spiritual landscapes and sites, and the quality of experience/sense of place in areas of use for traditional purposes may occur due to Project and RFD activities that result in effects that overlap spatially and temporally may occur as a result of RFDs in areas of overlap.

The cumulative negative effect to First Nations rights, interests and use of lands and resources is assessed as being of negligible to moderate magnitude depending on the RFD. The geographic extent of cumulative effect would be local to regional. The duration of the net cumulative effect is generally predicted to be short-term for construction effects and long-term for operation, including potential remove of habitat representing harvest opportunities. The net



cumulative effects would be continual considering the duration of the cumulative effect associated with the structures and permanent access roads of the Project. Likelihood of occurrence has generally predicted to be possible to certain, as some effects such as those from the potential deep geological repository site are wholly dependent on which site is selected for that project. The summary of predicted net cumulative effects is shown in Table 7.7-11.



Table 7.7-11: Summary of Predicted Net Cumulative Effects on First Nations Rights, Interests and Use of Land and Resources

Criteria	Net Effect	Direct / Indirect	Direction	Magnitude	Geographic Extent	Duration / Reversibility	Frequency	Probability of Occurrence
Use of land and resources for the current and traditional exercise of Indigenous rights	Net change in area (ha) of unoccupied Crown land converted to occupied Crown land.	Direct	Negative	Low	Local	Short-term and Long-term	Continual to Infrequent	Possible
Use of land and resources for the current and traditional exercise of Indigenous rights	Net change in availability of harvested resources.	Direct and Indirect	Negative	Negligible to Low	Regional	Short-term and Long-term	Continual to Infrequent	Certain
Use of land and resources for the current and traditional exercise of Indigenous rights	Net change in access to preferred harvesting areas.	Direct	Negative and positive	Negligible to Low	Regional	Short-term and Long-term	Infrequent	Possible
Cultural Landscapes and Intangible Cultural Heritage	Net change in access to culturally sensitive, sacred or spiritual landscapes and sites	Direct	Negative	Negligible to Moderate	Local	Long-term	Infrequent	Possible
Cultural Landscapes and Intangible Cultural Heritage	Net change in quality of experience/sense of place in areas of use for traditional purposes, including sensory disturbance	Indirect	Negative	Low to Moderate	Regional	Short-term and Long-term	Periodic and Continual	Probable

7.7.12.4 *Assessment of Significance of Cumulative Effects*

The assessment of significance of cumulative effects of the Project is informed by the interaction between the significance factors, with magnitude, duration, and geographic extent being the most important factors. As set out in Section 5.6.5, a predicted net cumulative effect on the First Nations Rights, Interests and Use of Land and Resources criteria would be considered significant if it is assessed as:

- High magnitude;
- Medium-term to permanent in duration;
- Occurring at any geographic extent; and
- Representing a management concern.

To be considered significant, the effects would have to result in substantial interference in the continued opportunity for First Nations communities to be able to undertake use of land and resources for the current and traditional exercise of Indigenous rights.

Taking into account the implementation of the mitigation measures, the magnitude of the cumulative effects for changes to the First Nations rights, interests and use of land and resources during the construction and operation and maintenance stages is low to moderate. With the effective implementation of mitigation measures likely for the RFDs assessed, including working closely with First Nation communities to reduce potential for effects, the cumulative effects in combination with the effects of the Project are not predicted to represent a substantial interference in the continued opportunity for First Nations communities to be able to undertake use of land and resources for the current and traditional exercise of Indigenous rights. However, Hydro One notes that the characterization of net effects is an interpretation by Hydro One and their consultants, which has been informed by the input of communities shared through comments on the Draft EA. Hydro One recognizes that each Indigenous community is best positioned to provide context on how opportunities to undertake use of land and resources for the current and traditional exercise of Indigenous rights are taken.

7.7.13 **Monitoring**

This section identifies any recommended effects monitoring to verify the prediction of the effects assessment and to verify the effectiveness of the mitigation measures and compliance monitoring to evaluate whether the Project has been constructed, implemented, and operated in accordance with the commitments made in the EA Report.

Monitoring for all components of the environment are relevant to confirming the predictions in the assessment of effects to First Nations rights, interests and use of land and resources. As noted in Section 10.0, the ongoing development of monitoring programs will also be informed by Indigenous Knowledge (IK) and the results of Indigenous Traditional Land and Resource Use



studies completed for the Project, including though development of a Traditional Land Use and Resource Management Plan in collaboration with First Nations.

Hydro One commits to sharing the list of EA commitments defined for the Project and the associated monitoring framework (Sections 10.3 and 10.4) with Indigenous communities. This will include opportunity for review of the Environmental Protection Plan and construction-related plans with potentially affected First Nations communities prior to construction. The purpose of sharing and engaging on these proposed plans and commitments will be to provide communities with the opportunity to comment on and participate in the development of the monitoring and follow-up programs and plans. Hydro One is also committed to employing Indigenous Environmental Monitors and/or Guardians and will collaborate with communities in implementing monitoring of Project-related effects and compliance monitoring throughout all Project stages.

In order to evaluate effects on First Nations rights, interests and use of land and resources, First Nations community members will be encouraged to share any issues and concerns with Hydro One and its contractor during the construction stage. Monitoring of complaints and issue resolution will help minimize or remove any on-going effects to land and resource use.

7.7.14 Prediction Confidence in the Assessment

Prediction confidence is discussed qualitatively for the overall effects assessment results for First Nations rights, interests and use of land and resources, after accounting for the steps used to reduce uncertainty.

Primary factors affecting confidence and uncertainty in this assessment are related to:

- The availability and quality of information defining the Project components and baseline characterization data (e.g., accuracy of land use and licensed or culturally defined spatial data);
- The availability of IK and studies that may further inform the assessment;
- Level of understanding and the ability to predict how Project components or effects are likely to change land and resource use or cultural practices, including perceptions of quality of experience and sense of place;
- Level of understanding of the drivers of change in indicators and associated impacts to First Nation land and resource use; and
- Level of certainty associated with the effectiveness of proposed mitigation measures.

Uncertainty in the assessment was reduced by:

- Using a conservative approach (e.g., assuming a high probability that effects may occur);



- The use of current net effects and cumulative effects information; and
- Commitment to further discussion with Indigenous communities through the EA review process.

A number of community-led, Project-specific IK studies continue to advance but could not be shared at the time of preparing this assessment. Hydro One has committed to considering IK information whenever during the Project it is received. This commitment is reflected through the characterization of baseline and in the consideration of effects in this section.

An understanding of the RFD projects to assess cumulative effects is based on the availability of detailed descriptions of individual projects and activities, a consideration of their proposed geographic context, the likelihood of their occurrence and experience and/or reference of the potential effects of these projects from similar documented developments. Since the amount of information on many projects is limited and there is uncertainty about their occurrence and their net effects, confidence is low.

Remaining uncertainty was primarily addressed by conservative assumptions that seek to overestimate rather than underestimate potential effects of the Project. Ongoing engagement with Indigenous communities on the EA Report and findings of IK studies as they are available will improve confidence in the effects assessment and cumulative effects.

7.7.15 Criteria Summary

Table 7.7-12 presents a summary of the assessment results by criteria.

Table 7.7-12: First Nations Rights, Interests and Use of Land and Resources Summary

Criteria	Assessment Summary
Use of land and resources for the current and traditional exercise of Indigenous rights	<ul style="list-style-type: none"> • With the implementation of mitigation measures, the net effects and cumulative effects considering RFDs are not predicted to represent a substantial interference in the continued opportunity for First Nations communities to be able to undertake use of land and resources for the current and traditional exercise of Indigenous rights.
Cultural Landscapes and Intangible Cultural Heritage	<ul style="list-style-type: none"> • Hydro One notes that the characterization of net effects is an interpretation by Hydro One, which has been informed by the input of communities shared through comments on the Draft EA. Hydro One recognizes that each Indigenous community is best positioned to provide context on how opportunities to undertake use of land and resources for the current and traditional exercise of Indigenous rights are taken.





hydroone.com