

Draft Project Description Report

Fort Frances Solar LP



Lac des Mille Lacs
FIRST NATION

Fort Frances Solar Project

Draft Project Description Report

Prepared for:

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ACRONYMS AND ABBREVIATIONS

AC	Alternating Current
DC	Direct Current
DFO	Department of Fisheries and Oceans Canada
ECCC	Environment and Climate Change Canada
EIS	Environmental Impact Study
ESC	Erosion and Sediment Control
HONI	Hydro One Networks Inc.
IESO	Independent Electricity System Operators
LDC	Local Distribution Company
MCM	Ministry of Citizenship and Multiculturalism
MECP	Ministry of the Environment, Conservation and Parks
MMAH	Ministry of Municipal Affairs and Housing
MNR	Ministry of Natural Resources
MTO	Ministry of Transportation
MV	Medium-Voltage
MWac	Megawatts AC
NRSI	Natural Resource Solutions Inc.
OEB	Ontario Energy Board
PDR	Project Description Report
PV	Photovoltaic
REA	Renewable Energy Approval
SAR	Species at Risk
SARA	Species at Risk Act
SCADA	Supervisory Control and Data Acquisition
SCC	Species of Conservation Concern
SWH	Significant Wildlife Habitat

1 INTRODUCTION

1.1 NAME OF THE PROJECT AND APPLICANT

Fort Frances Solar LP (the Proponent), a partnership of Hydroméga Services Inc. (a FirstLight company) and Lac des Mille Lacs First Nation, is proposing to develop the Fort Frances Solar Project (the Project) in the District of Rainy River. The Project is situated on private and municipally owned lands within the Town of Fort Frances, Ontario. The targeted commercial operation date is Fall 2029.

The Proponent has been awarded a contract through the Independent Electricity System Operator (IESO) LT2 (e-1) procurement process to develop a solar power generation facility (i.e., the Project). The Project will require a Renewable Energy Approval (REA) as per Ontario Regulation 359/09 (O. Reg 359/09) – under Part V.0.1 of the *Environmental Protection Act, 1990*. This draft Project Description Report (PDR) has been prepared in accordance with Item 10 of Table 1 in O. Reg. 359/09, as amended (MECP, 2026) and the Ministry of the Environment, Conservation and Parks (MECP) *Technical Guide to Renewable Energy Approvals* (MECP, 2023) and will evolve throughout the development of the proposed Project until the final document is submitted.

1.2 SUMMARY OF PROJECT DESCRIPTION REPORT REQUIREMENTS

Table 1-1 outlines the requirements for a PDR under O. Reg. 359/09, as amended, and identifies the sections of the draft PDR that address each requirement.

Table 1-1: Adherence to Project Description Report Requirements under O. Reg. 359/09, as Amended

Requirement	Corresponding Section
Any energy sources to be used to generate electricity at the renewable energy generation facility.	1.3
The facilities, equipment or technology that would be used to convert the renewable energy source or any other energy source to electricity.	2.1
The class of the renewable energy generation facility.	1.3
The activities that will be engaged in as part of the renewable energy project.	0
The name plate capacity of the renewable energy generation facility.	1.3
The ownership of the land on which the Project Location is to be situated.	1.5
Any negative environmental effects that may result from engaging in the project.	3
An unbound, well marked, legible and reproducible map that is an appropriate size to fit on a 215 millimetre (mm) by 280 mm page, showing the Project Location and the land within 300 m of the Project Location.	1.4

1.3 DESCRIPTION

The proposed Project is a solar facility that will generate electricity using sunlight captured by solar panels. The nameplate capacity of the Project will be 57.2 Megawatts (MWac) and is categorized as a Class 3 solar facility according to the requirements outlined in O. Reg. 359/09, as amended. The Project lifetime is expected to be 30 years.

1.4 PROJECT LOCATION

The proposed Project is in the District of Rainy River, Ontario, on private and municipally owned lands within the Town of Fort Frances municipal boundaries (See Figure 1). According to O. Reg. 359/09, as amended, the Project Location means: “a part of land and all or part of any building or structure in, on or over which a person is engaging in or proposes to engage in the project and any air space in which a person is engaging in or proposes to engage in the project”. Therefore, the Project Location is the boundary where site preparation and construction activities will occur and where permanent infrastructure will be installed for the Project. Complementary lands within the Town of Fort Frances may be used for additional storage and staging during construction.

The total area of the Project Location is approximately 111 hectares (ha). As outlined in O. Reg. 359/09 as amended, and the *Technical Guide to Renewable Energy Approvals* (2023), a 300 metre (m) buffer has been applied surrounding the Project Location, covering an area of approximately 330 ha.

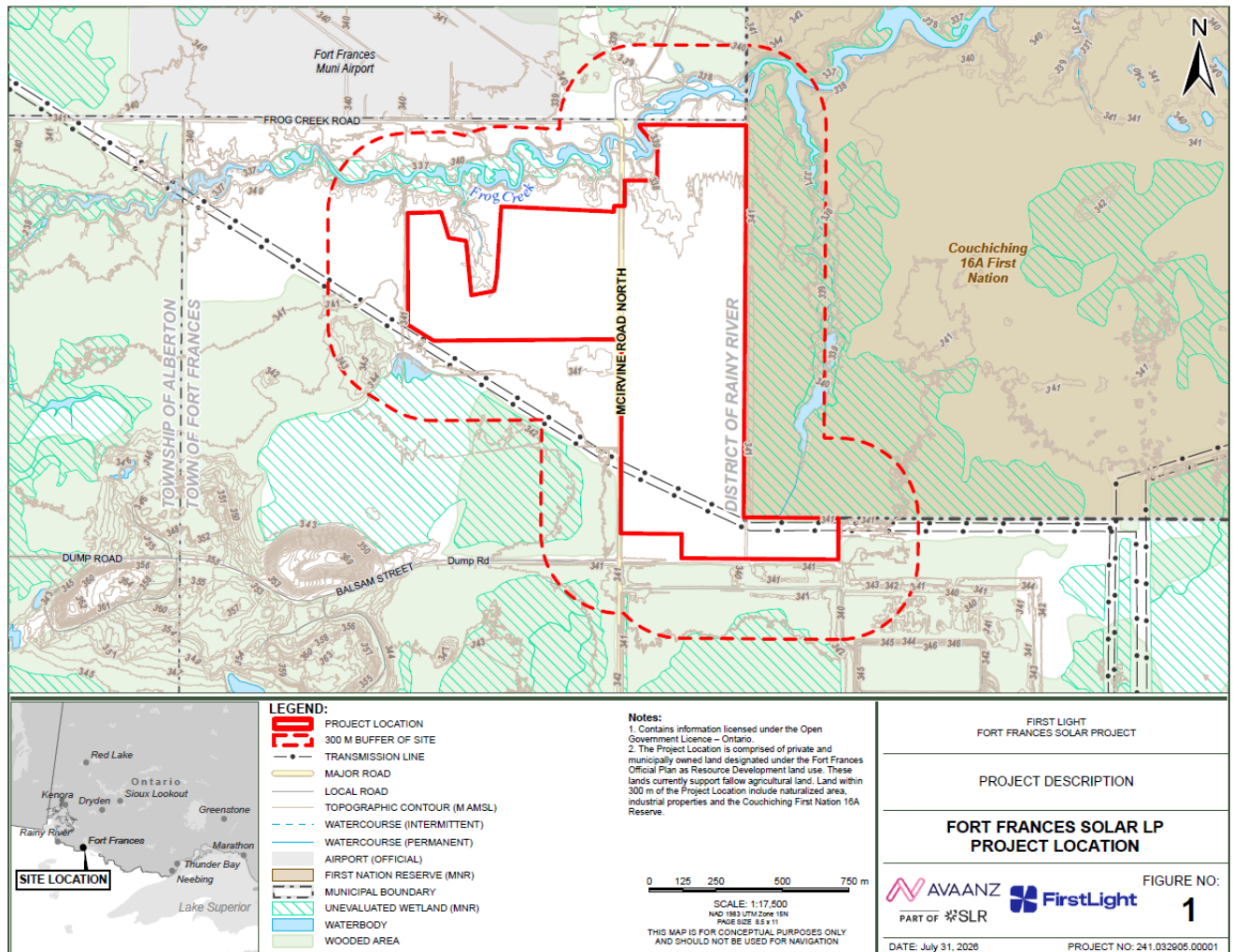


Figure 1: Project Location Map

1.5 LAND OWNERSHIP

The Project is located on private and municipally owned lands within the Town of Fort Frances municipal boundaries. The properties are expected to be leased from the landowners by a FirstLight related entity.

1.6 CONTACT INFORMATION

The Project is a partnership of Hydroméga Services Inc. (a FirstLight company) and Lac des Mille Lacs First Nation.

Table 1-2: Proponent and Consultant Contact Information

Contact Information for the Applicant is as follows:	
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Title:	Senior Environmental Planner
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Phone #:	226-203-2496
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1.7 OTHER APPROVALS AND AUTHORIZATIONS REQUIRED

Table 1-3, Table 1-4, and Table 1-5 below outline the potential permits and authorizations that may be required by key Provincial and Federal agencies, and the local municipality.

1.7.1 Potential Provincial Permits and Authorizations

A REA is required for this proposed Project which exempts the Project from requiring permits administered by the MECP relating to air, noise and vibrations, water taking, industrial sewage, and stormwater. The applicability of additional permits and authorizations will be dependent on the Project's detailed design and site investigations to confirm the existence of natural heritage features.

Table 1-3: Potential Provincial Permits and Authorizations

Administering Agency	Potential Permit/ Authorization	Rationale
Electrical Safety Authority	<i>Electricity Act</i> Certificate of Acceptance (or Inspection)	Ensure work complies with the Ontario Electrical Safety Code.
Fort Frances Power Corporation (FFPC)	Connection Impact Assessment	Evaluation of potential effects on FFPC's distribution system under the Ontario Energy Board (OEB) Distribution System Code.
Hydro One Networks Inc. (HONI)	Customer Impact Assessment	Evaluation of potential effects to existing electrical customers on the HONI transmission network.
Independent Electricity System Operator (IESO)	System Impact Assessment	Potential effects of integrating the Project within provincial transmission system.
	Approval of Connection	Electrical interconnect with IESO regulated network.
	Connection Assessment	Integration of Project with IESO-controlled transmission system.
Ministry of Citizenship and Multiculturalism (MCM)	<i>Ontario Heritage Act</i> Archaeological Clearance	Applies to activities that have the potential to impact archaeological resources.
	<i>Ontario Heritage Act</i> Cultural Heritage Clearance	Applies to activities that have the potential to impact cultural heritage resources.

Administering Agency	Potential Permit/ Authorization	Rationale
Ministry of the Environment, Conservation and Parks (MECP)	<i>Species Conservation Act</i> Permit or Registration	May be required if Project activities have the potential to kill, harm, capture, or take a species that is listed on the Protected Species in Ontario List. The Project Location comprises of fallow agricultural land, wetlands and woodlands, and may be suitable habitat for protected species, such as birds and bats.
	On-Site and Excess Soils Management – Registration	May be required if the Project generates excess soil and includes any form of development or site alteration.
Ministry of Labour	<i>Occupational Health and Safety Act</i> Notice of Project	Notification to the Ministry of Labour before construction begins.
Ministry of Natural Resources (MNR)	<i>Fish and Wildlife Conservation Act</i> Approval	Required if the Project activities require the relocation of some species of birds, amphibians, reptiles, and mammals in active construction areas.
	<i>Lakes and Rivers Improvement Act</i> Approval	Required to construct, alter, improve or repair dam infrastructure in Ontario, including temporary dams and other works (e.g. water crossings, channelization, enclosures, cables and pipelines).
	<i>Public Lands Act</i> Work Permit	May be required if the Project crosses watercourses that are considered public lands.
Ministry of Transportation (MTO)	<i>Highway Traffic Act</i> Oversize Load Transportation Permit	Compliance with provincial highway traffic and road safety regulations.
	<i>Highway Traffic Act</i> Special Vehicle Configuration Permit	Use of non-standard vehicles to transport large components.

Administering Agency	Potential Permit/ Authorization	Rationale
Ontario Energy Board (OEB)	<i>Ontario Energy Board Act</i> Generator's Licence	Generator Operation Permit.
	<i>Ontario Energy Board Act</i> Transmitter Licence	Transmission of electrical power to interconnect with provincial grid.

1.7.2 Potential Federal Permits and Authorizations

An environmental assessment under the Canadian *Impact Assessment Act* is not anticipated to be required as solar projects are not on the list of designated projects described in the Physical Activities Regulations (Government of Canada, 2019). The applicability of the permits and authorizations listed below will be dependent on the Project's detailed design and site investigations to confirm the existence of natural heritage features.

Table 1-4: Potential Federal Permits and Authorizations

Administering Agency	Potential Permit/ Authorization	Rationale
Fisheries and Oceans Canada (DFO)	<i>Fisheries Act</i> Letter of Advice or Authorization	May be required if work associated with the Project is conducted near a fish bearing waterbody. Currently, no work is planned near fish habitat.
Environment and Climate Change Canada (ECCC)	<i>Migratory Bird Convention Act</i> Damage or Danger Permit	Required if there are impacts to birds from clearing within the migratory bird nesting window. The Project Location comprises of fallow agricultural land, wetlands and woodlands, and may be suitable habitat for migratory bird species.
	<i>Species at Risk Act</i> (SARA) Permit	Required if there are impacts to Species at Risk (SAR) or their habitat. Suitable habitat may exist for SAR within the Project Location. Site investigations will confirm if SAR or their critical habitat is present within the Project Location and if a SARA permit is expected to be required.

Administering Agency	Potential Permit/ Authorization	Rationale
Transport Canada	<i>Navigable Waters Act</i> Navigation Protection Plan Approval	Required if work is completed in, on, over, under, through, or across a navigable watercourse

1.7.3 Municipal Permits and Authorizations

In addition to the provincial and federal requirements, the Project will require municipal permits and approvals. The applicability of the Town of Fort Frances permits and authorizations listed below will be dependent on detailed design of the Project.

Table 1-5: Municipal Permits and Authorizations

Permit/Authorization	Rationale
Building Permit	Compliance with the Ontario Building Code.
Consent/Severance Application	Required if an easement over private lands is required.
Drainage Permit	Required for crossings of municipal drains.
Entrance and Road Cut Permit	Ingress/egress from municipal roads.
Land Use Planning Approvals – Official Plan Amendment, Zoning By-Law Amendment, and Site Plan Amendment	May be required if the Project is not a permitted use of the current land use designation(s), and where deviations from existing approved site plan is required.
Noise By-law Exemption	May be required during Project construction.
Road Occupancy Permit	Required for work in municipal road allowances.

The Fort Frances Municipal Airport is located northeast of the Project Location. NAV Canada has evaluated the Project and has no objections under the Land Use Program approval process.

2 PROJECT INFORMATION

2.1 FACILITY COMPONENTS

A description of the solar specific electricity generation equipment and ancillary components are outlined below in Table 2-1.

Table 2-1: Description of Facility Components

Component	Description
Solar photovoltaic (PV) module	The Project will include the installation of utility-scale solar bifacial PV modules to capture sunlight for conversion to electricity.
Power Conversion Stations	Approximately 10 - 15 power conversion stations will be used for the Project to convert the DC (Direct Current) output from the solar PV modules to AC (Alternating Current). Individual medium-voltage (MV) step-up transformers will be located at each power conversion station to raise the voltage to 44 kV for interconnection to FFPC.
Substation	A substation incorporating the necessary protection and communication equipment will be used for the Project to interconnect to the FFPC distribution network.
Foundations	The solar PV modules will be mounted on single-axis tracking structures and will be supported by helical pile or driven steel pile foundations, with pre-drilling where required based on geotechnical conditions.
Collector System and Connection Line	- The electrical system includes a 44 kV collector system (underground and overhead cabling), switching station/substation, protection and control systems, metering equipment, and Supervisory Control and Data Acquisition (SCADA) monitoring systems. - The Project will interconnect to the Local Distribution Company (LDC) FFPC through a new dedicated dual-circuit 44 kV feeder.
Laydown Area	Temporary construction staging areas will be required for the Project for construction trailers, equipment, and worker parking.
Operations and Maintenance (O&M) Buildings	O&M buildings are planned within the Project Location boundary.
Access Road	Access roads will be constructed within the Project Location boundary.
Perimeter Fencing	Fencing and security measures will be installed around the facility perimeter.

2.2 PROJECT ACTIVITIES

The proposed activities for the construction, operation, and decommissioning phases of the Project are outlined in Table 2-2. The facility will operate automatically with remote monitoring and limited on-site staffing, and the facility is not expected to generate emissions, or waste beyond minor maintenance-related materials. Throughout the phases of the Project, all activities will be conducted in accordance with applicable legislation. More information regarding these activities will be provided in the Construction Plan Report, Design and Operations Report, and Decommissioning Plan Report submitted as part of the REA application.

Table 2-2: Project Activities

Project Phase	Activities
Construction and Installation	Erosion and sediment control measures (ESC) implemented preconstruction and maintained
	Site preparation and vegetation clearing
	Site grading and earthworks
	Access road and internal road development
	Racking and tracker system installation
	PV module installation
	Inverter and transformer installation
	Electrical installation including DC cabling, AC cabling, an interconnection of the collector systems, protection systems, and SCADA/monitoring systems
	Substation and switching station installation
	Fencing and security
	Commissioning of the facility
Operation	Generation of electricity from solar energy
	Continuous monitoring of system performance through SCADA systems
	Equipment inspection, maintenance and servicing, including upgrades or replacement as needed
	Cleaning of PV modules
	Vegetation maintenance
Decommissioning	Removal of PV modules, racking systems, inverters, transformers, and associated electrical infrastructure, fencing and ancillary infrastructure
	Restoration in accordance with applicable regulatory requirements

2.2.1 Waste Generation

During construction, solid waste will consist primarily of packaging materials (e.g., wood pallets, cardboard, plastic wrap), scrap metal, excess cabling, and general construction debris. Limited quantities of liquid waste may include minor wash water from construction activities and from the sanitary facilities. Waste materials will be collected, recycled where feasible, and transported off-site by licensed waste management contractors to approved waste disposal or recycling facilities. During operations, waste generation will be minimal and limited to routine maintenance materials such as replaced components. No industrial process waste is anticipated during normal facility operations. Throughout decommissioning, modules that are still functional will be reused, and the other materials including electrical materials and the rest of the modules will be recycled.

2.2.2 Stormwater

All stormwater management measures will be implemented in accordance with a Stormwater Management Plan that will be developed and applicable regulatory requirements. Stormwater will be managed through site grading, drainage controls, and ESC measures designed to maintain pre-development drainage patterns and minimize erosion. Throughout the construction phase, ESC measures may include silt fencing, sediment traps, stabilized construction entrances, and temporary diversion swales. Permanent drainage infrastructure may be required such as culverts and stabilized swales.

2.2.3 Sewage

Temporary sanitary facilities (e.g., portable toilets) will be provided during construction and serviced by licensed contractors, with all sewage transported off-site to approved treatment facilities. The operation and maintenance building will have permanent sanitary facilities. Water will be supplied by truck, and waste will be removed by truck. Any small volumes of sewage during operations will be managed through appropriate on-site systems or municipal services, as applicable.

2.2.4 Water Taking

The facility is not expected to require any long-term or operational water-taking and will be obtained from licensed suppliers when required. During construction, only limited quantities may be needed for activities such as dust suppression and for sanitary facilities. Limited and temporary construction dewatering may also be required during subsurface construction and installation activities. Throughout operation, water use will be limited to cleaning of the PV modules when necessary. Water will be obtained from licensed suppliers when required.

2.2.5 Air Emissions

Throughout construction and decommissioning, air emissions from vehicles and heavy equipment are expected. These emissions are expected to be minimal and localized. During operation, the Project facilities are not expected to generate emissions.

3 EXISTING CONDITIONS

This section provides a high-level summary of the existing conditions at the Project Location based on a review of records (NRSI, 2026). The existing conditions will be validated through site investigations planned for 2026 and reported per the requirements of O. Reg. 359/09, as amended.

3.1 CULTURAL HERITAGE AND ARCHAEOLOGICAL RESOURCES

Archaeological and cultural heritage assessments will be completed in accordance with the MCM *Standards and Guidelines for Consultant Archaeologists* (2011) and will meet the requirements of O. Reg. 359/09, as amended.

3.2 NATURAL HERITAGE

A preliminary investigation of Significant Natural Heritage features in the Project Location and the surrounding area has been done through a background review and site visit completed by Natural Resource Solutions Inc. (NSRI, 2026). Based on the review, there are no Provincial Parks, Conservation Reserves, or Areas of Natural and Scientific Interest within the Project Location.

3.2.1 Significant Wetlands

There are no mapped provincially significant wetlands in the Project Location.

3.2.2 Significant Woodlands

Based on the geographic location of the Project (i.e., north of the Canadian Shield), woodlands do not require a determination of significance in accordance with the *Natural Heritage Assessment Guide for Renewable Energy Projects* (MNR, 2026b), and their presence is not considered a development constraint. There are no woodland features within the Project Location. There are woodlands located adjacent to the Project Location that may be habitat for SAR and will be evaluated through record review and site visit.

3.2.3 Significant Wildlife Habitat

A preliminary identification of Significant Wildlife Habitat (SWH) has been completed by reviewing available records and through a preliminary site visit. Six protected species and 11 Species of Conservation Concern (SCC) identified through background review may be present within the surrounding area and therefore may use the Project Location as habitat. These habitats among other unknown or potentially occurring SWH will be further investigated through the natural heritage assessment.

3.3 SURFACE WATER AND GROUNDWATER

The Project Location and surrounding area is outside of a source protection area (MECP, 2026b). There are 4 wells near the northwestern portion of the Project Location, and there are no expected impacts to ground water (MECP, 2026b). One watercourse, Frog Creek, and an open aquatic feature was identified within 300 m of the Project Location. Intermittent and ephemeral watercourses occur within the northwest portion of the Project Location requiring a more detailed assessment to confirm the presence and characteristics of these features. If unmapped water bodies are identified, they will be assessed in accordance with O. Reg. 359/09, as amended, and any mitigation measures in respect of negative environmental effects that will or are likely to occur will be provided in Table 4-1.

3.4 EMISSIONS TO AIR INCLUDING ODOUR AND DUST

The Project Location is within the Fort Frances municipal boundaries, with developed areas located primarily to the south. Local sources of dust and odour include the landfill west of the Project Location. The Fort Frances Municipal Airport, a local source of air emissions, is located north of the Project Location. East of the Project Location are undeveloped, naturalized areas with limited air emission sources.

3.5 ENVIRONMENTAL NOISE

The Project Location is south of the Fort Frances Municipal Airport, a local source of noise emissions. Other local sources of noise in proximity to the Project Location include road traffic, landfill, and other noise sources associated with the developed areas of Fort Frances. A noise study will be submitted as a part of the REA application and will include the information outlined in the *Technical Guide to Renewable Energy Approvals* (MECP, 2023) for Class 3 solar facilities.

3.6 LOCAL LAND USE AND SOCIO-ECONOMIC RESOURCES

The Project is located on private and municipally owned lands within the Municipality of Fort Frances. Per the Fort Frances Official Plan (2025), the Project Location is within lands designated as Resource Development. The lands are currently used for agricultural purposes. The Project Location falls within the northeastern portion of the Fort Frances municipal boundary, with urban development primarily located to the south.

Fort Frances is located along the Canada–United States border and it is connected to International Falls by the international bridge crossing over Rainy River. This border crossing supports the movement of people, goods, and commercial traffic between northwestern Ontario and the United States,

contributing to regional trade, tourism, and cross-border connectivity. As a result, Fort Frances offers numerous services to the town and surrounding community, including but not limited to, elementary, secondary, and post-secondary education, as well as hospital and paramedic services. Both the Ontario Provincial Police department and the Treaty Three Police Service operate in the Fort Frances area.

Engagements with Indigenous communities and the public will help further inform potential impacts and local interests.

3.7 OTHER UTILITIES AND INFRASTRUCTURE

There are no known waste sites, sustainable forest licenses, petroleum wells or pipelines within the Project Location (CER, 2023; MECP, 2026a; MNR 2026c; MNR 2026d; MNR 2025). The closest landfill is the Fort Frances Landfill located approximately 1.5 km west of the Project Location (MECP, 2026a). There is an access road located east of the Project Location, as well as Industrial Employment lands south of the Project Location (SLR, 2025).

The Town of Fort Frances services the region with two drinking water systems and provides water and sanitary services to the community through watermains and sanitary sewer infrastructure. The Town of Fort Frances operates a Class 3 Wastewater Treatment plant south of the Project Location as well as six sewage pumping stations, all of which are located outside of the Project Location.

There is a CN railway crossing through Fort Frances south of the Project Location. An existing HONI transmission line crosses through the Project Location.

3.8 AREAS PROTECTED UNDER PROVINCIAL PLANS AND POLICIES

The Project Location is not situated on any land in any of the of the following provincial land use plans: the Greenbelt Plan, Oak Ridges Moraine Conservation Plan, Niagara Escarpment Plan, and the Lake Simcoe Protection Plan.

4 ENVIRONMENTAL EFFECTS

The potential environmental effects that may result from construction, operation, and decommissioning are discussed in this section and will be evaluated in accordance with the REA regulation O. Reg. 359/09, as amended. The following environmental components will be assessed:

- Cultural Heritage and Archaeological Resources
- Natural Heritage
- Surface Water and Groundwater
- Air and Noise Emissions
- Local Land Use and Socio-Economic Resources
- Municipal Infrastructure and Waste Management
- Public Health and Safety Areas Protected under Provincial Plans and Policies

More information will be provided as it becomes available through assessments and site investigations.

Table 4-1: Summary of the Potential Environmental Effects and Mitigation Measures resulting from the Construction, Operational, and Decommissioning Stages of the Project

Environmental Component	Project Phase	Potential Environmental Effects	Mitigation Measures
Cultural Heritage and Archaeological Resources	Construction and Decommissioning	Disturbance or loss of cultural heritage and archaeological sites.	- Complete a cultural heritage evaluation prior to commencing construction. - Complete archaeological assessments and obtain clearance prior to commencing construction activities. Indigenous communities identified by MECP will be engaged in this process. - If an archaeological site is uncovered or affected, the work shall halt immediately, and the general contractor notified of the discovery. - Any sites that are identified to have archaeological resources will be avoided by: - Installing a buffer zone to act as a barrier between Project activities and the archaeological resources. - Consulting with the Archaeologist to conduct monitoring of the archaeological site during construction and decommissioning. - Consulting with the Archaeologist to determine the appropriate measures to follow.

Environmental Component	Project Phase	Potential Environmental Effects	Mitigation Measures
Cultural Heritage and Archaeological Resources (continued)	Operation	Archaeological assessments will be conducted prior to construction. Therefore, no potential effects are expected due to operations.	No mitigation measures are expected to be required during operations when the mitigation measures are followed throughout the construction phase of the Project.
Significant Wetlands	Construction and Decommissioning	- Sedimentation and erosion. - Change in soil moisture and compaction. - Reduced water quality. - Disturbance to water drainage patterns. - Impacts to natural vegetation. - Accidental spills or deleterious substances entering the habitat.	- No development will be permitted within identified significant wetland boundaries in or within 50 m unless supported through an Environmental Impact Study (EIS). - Implement ESC measures when appropriate according to the sediment and erosion control plan. - Schedule project activities that may result in sedimentation to avoid high runoff volumes where appropriate and suspend work if sedimentation occurs. - Consult with environmental monitors to limit the disturbance of vegetation. - Maintain all machinery on site in a clean condition and report a spill immediately if contamination occurs. - Minimize the use of impervious surfaces where possible to reduce surface water runoff.
	Operation	No direct impacts to significant wetlands are anticipated during the operation of the Project.	With the implementation of mitigation measures and monitoring programs, where requires, no significant impacts are expected to occur.

Environmental Component	Project Phase	Potential Environmental Effects	Mitigation Measures
Significant Woodlands	Construction, Operation, and Decommissioning	Prohibitions related to significant woodlands are not applicable to this Project, therefore no impact is anticipated.	N/A
SWH	Construction and Decommissioning	- Disturbance to local wildlife. - Sedimentation and erosion. - Accidental spills or deleterious substances entering the habitat. - Impacts to natural vegetation. - Impacts to water quality. - Disturbance to water drainage patterns.	- Development is prohibited in and within 50 m of SWH unless supported through an EIS. - If significant wildlife and their habitats are found within the Project Location, project activities will be conducted during the appropriate timing windows, when possible, to limit avoid or limit disturbance. - Implement ESC measures when appropriate according to the sediment and erosion control plan. - Schedule Project activities that may result in sedimentation to avoid high runoff volumes where appropriate and suspend work if sedimentation occurs. - Consult with environmental monitors to limit the disturbance of vegetation. - Maintain all machinery on site in a clean condition and report a spill immediately if a contamination occurs. - Minimize the use of impervious surfaces where possible to reduce surface water runoff. - Implement a monitoring program to assess ESC measures throughout the Project phases and monitor the site post construction.

Environmental Component	Project Phase	Potential Environmental Effects	Mitigation Measures
SWH (continued)	Operation	No impacts to SWH are anticipated due to the operation of the Project.	With the implementation of mitigation measures and monitoring programs, no significant impacts are expected to occur.
Surface Water and Groundwater	Construction, and Decommissioning	- Accidental spills or deleterious substances entering waterbodies and/or groundwater supplies. - Sedimentation, erosion, and increased turbidity. - Disturbance to water drainage patterns. - Dewatering from groundwater supplies. - Impacts on water quality. - Disruption due to in-water work.	- Limit duration of dewatering as short as possible and implement monitoring measures to avoid sedimentation, erosion, or flooding. - Implement ESC measures. - Maintain all machinery on site in a clean condition and report a spill immediately if contamination occurs. - Implement a monitoring program to assess ESC measures throughout the Project phases and monitor the site post construction. - Minimize the use of impervious surfaces where possible to reduce surface water runoff.
	Operation	No impacts to surface water or groundwater are anticipated during the operation of the Project.	- Report a spill if a contamination occurs. - Maintain equipment in a clean condition and refuel in designated areas away from water bodies.

Environmental Component	Project Phase	Potential Environmental Effects	Mitigation Measures
Emissions to Air including Odour and Dust	Construction and Decommissioning	- Impacts to air quality due to elevated emissions and dust levels. - Impacts to vegetation and water bodies from persistent dust films.	- Idling of vehicles and equipment will be avoided when not necessary for Project activities. - Apply dust suppressants to unpaved areas to reduce the release of dust. - Vehicles will be maintained and monitored to minimize the emissions levels. - Project complaints will be reviewed on a regular basis according to an emergency response and communications plan.
	Operation	Local, short duration air emissions from maintenance activities.	- Idling of vehicles and equipment will be avoided when not necessary for Project activities. - Apply dust suppressants to unpaved areas to reduce the release of dust when applicable. - Vehicles will be maintained and monitored to minimize the emissions levels.
Noise	Construction and Decommissioning	- Disturbance to wildlife. - Disturbance to residents.	- Noise levels from equipment will be compliant with the Environmental Noise Guidelines (MECP, 2021). - Ensure that vehicles and equipment are maintained and monitored to avoid excessive noise. - Schedule activities to comply with noise by-laws, where possible. - Project complaints will be reviewed on a regular basis according to an emergency response and communications plan.

Environmental Component	Project Phase	Potential Environmental Effects	Mitigation Measures
Noise (continued)	Operation	- Noise from stationary infrastructure. - Elevated short-term noise associated with maintenance.	- Sound levels will comply with the Environmental Noise Guidelines (MECP, 2021). - Routine maintenance and monitoring will reduce the likelihood of increased noise from malfunctioning equipment.
Local Land Use and Socio-Economic Resources	Construction and Decommissioning	- Disturbance to local traffic patterns. - Increased levels of air emissions, dust levels, and noise. - Damage to local infrastructure.	- Consult with surrounding landowners, Indigenous communities, and other interested stakeholders to minimize disturbance to the surrounding lands. - Project complaints will be reviewed on a regular basis according to an emergency response and communications plan. - Idling of vehicles and equipment will be avoided when not necessary for Project activities. - Apply dust suppressants to unpaved areas to reduce the release of dust when applicable. - Vehicles will be maintained and monitored to minimize the air and noise emissions levels.
	Operation	Visual nuisance to the community and local airport may occur due to the presence of the facility.	- Consult NAV Canada on the Project to minimize potential effects to the airport. - Minimize visual nuisance to the community through screening and/or other measures. - Project complaints will be reviewed on a regular basis according to an emergency response and communications plan. - Idling of vehicles and equipment will be avoided when not necessary for Project activities. - Apply dust suppressants to unpaved areas to reduce the release of dust when applicable.

Environmental Component	Project Phase	Potential Environmental Effects	Mitigation Measures
Municipal Infrastructure and Waste Management	Construction and Decommissioning	• Increase in traffic. • Interference with utilities and other infrastructure, which could result in damage to the infrastructure and injury to personnel. • Improper disposal of waste material may result in soil, and/or water contamination.	• Project traffic will be managed through a traffic management plan. • Utilities will be properly located and marked prior to construction. • Consult with local utilities during Project development. • Waste materials will be stored properly on site and will be disposed of at an appropriate off-site facility.
	Operation	• No impacts to municipal infrastructure or waste management are anticipated during the operation of the Project.	• Waste materials will be stored properly on site and will be disposed of at an appropriate off-site facility.

Environmental Component	Project Phase	Potential Environmental Effects	Mitigation Measures
Public Health and Safety	Construction, Operation, Decommissioning.	• Risk of fire due to accident or electrical malfunction. • Potential traffic safety concerns.	• The primary method of minimizing potential public health and safety risks will be by installing perimeter fencing to restrict site access and prevent trespassing and vandalism. • Consult with surrounding landowners, Indigenous communities, and other interested stakeholders to understand concerns. • A safety fence should be installed at the edge of the construction area where public safety considerations are required. • Project complaints will be reviewed on a regular basis according to an emergency response and communications plan. • The potential for accidents and malfunctions will be reduced by providing proper training and education of staff operating the control system and maintaining the panels. • Solar panels and associated electrical equipment will be installed and maintained in accordance with applicable safety standards.

5 SUMMARY AND CONCLUSIONS

As the Project continues to develop, field work and data collection will be conducted to refine the potential effects on environmental components and mitigation measures that will be implemented during the construction, operation, and decommissioning phases. Information obtained through the consultation process with Indigenous communities, the public, and with agencies will also be integrated into the PDR before being submitted as part of the REA application.

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