

HYDRO ONE NETWORKS INC.

ENVIRONMENTAL PROTECTION PLAN

WAASIGAN TRANSMISSION LINE PROJECT
VERSION: 7.0





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GLOSSARY

EA	Environmental Assessment
ECA	Environmental Compliance Approval
EPP	Environmental Protection Plan
ESA	Endangered Species Act
CCME	Canadian Council of Ministers of the Environment
EPP	Environmental Management Plan
BMP	Best Management Practices
EMS	Environmental Management System
ROW	Right of Way
SAR	Species at Risk
SARB	Species at Risk Branch
RAP	Restricted Activity Period
QEP	Qualified Environmental Professional
QP	Qualified Person
ESS	Environmentally Sensitive Areas
PWS	Provincially Significant Wetland
ANSI	Areas of Natural and Scientific Interest
SWH	Significant Wildlife Habitat
MNR	Ministry of Natural Resources
MECP	Ministry of the Environment, Conservation and Parks
DFO	Department of Fisheries and Oceans
MTO	Ministry of Transportation
SFL	Sustainable Forest Licence
PRF	Permit to Review Forest Resources
OLA	Overlapping Licence Agreement
SSG	Stand and Site Guides
TSS	Total Suspended Solids
ESC	Erosion and Sediment Control
ESCP	Erosion and Sediment Control Plan
OPSS	Ontario Provincial Standard Specifications
TDGA	Transportation of Dangerous Goods Act
WHMIS	Workplace Hazard Material Information System
MSDS	Material Safety Data Sheet
PCB	Poly Chlorinated Biphenyls
FLHA	Field Level Hazard Assessments
JHA	Job Hazard Assessment
EIN	Environmental Incident Notification
EIR	Environmental Incident Report
AA	Archaeological Assessment
WHPA	Well Head Protection Areas
IPZ	Intake Protection Zones
HVA	Highly Vulnerable Aquifers
PTTW	Permit To Take Water
EASR	Environmental Activity and Sector Registry
PGP	Permanent Growth Plots
PSP	Permanent Sample Plots



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1 INTRODUCTION

The Waasigan Transmission Line Project (the “Project”) Environmental Protection Plan (EPP) describes industry standards, best management practices (BMPs), and site-specific mitigation for environmental protection to be implemented during the construction of the Project to avoid or reduce potential environmental effects.

The Project consists of a proposed new double-circuit 230 kilovolt (kV) transmission line between Lakehead Transformer Station (TS) in the Municipality of Shuniah and Mackenzie TS in the Town of Atikokan, and a new single-circuit 230 kV transmission line between Mackenzie TS and Dryden TS in the City of Dryden. Depending on the preferred route, the length of the new transmission line will be approximately 350 kilometers.

The Project was identified as a priority project by the IESO based on technical, economic and other considerations. The IESO's assessment of northwestern Ontario's electricity forecast has identified that additional capacity will be required in the region, and the Project is critical to meet Ontario's future electricity delivery needs, and in particular, to support growth and maintain a reliable electricity supply to areas west of Atikokan and north of Dryden. Industrial activities in northwestern Ontario, particularly in the mining sector, are expected to drive strong electricity demand growth in the coming decades. Coupled with changes in the region's supply and the connection of remote communities currently relying on diesel generation to the electricity grid, the IESO forecasts a need for new supply to meet future demand in northwestern Ontario.

The IESO has indicated that development work for the Project should begin as soon as possible in order to shorten the project's lead time in case high energy demand materializes sooner than expected. The development work includes preliminary design/engineering, cost estimating, public engagement/ consultation, routing and siting and EA work.

1.1 PURPOSE AND SCOPE OF THE EPP

The Project-specific EPP identifies the key environmental information, requirements and mitigation measures required to support the Project's works activities. It includes both general and site-specific environmental mitigation measures and BMPs to avoid or minimize known and potential environmental risks applicable to the Project's scope of work based on Project specific commitments, policies, standards and applicable legislation. It is intended to be a reference document for all project personnel to facilitate planning and execution of project-specific activities, as well as a guidance document for contingency planning. The Project's compliance with the EPP and the requirements of project specific permits, approvals and agreements is documented in the Project's Environmental Management System (EMS). The specific goals of the EPP are to:

- Identify and document environmental concerns and appropriate mitigation measures for each project activity;
- Provide concise and clear direction to Project personnel regarding environmental protection measures;
- Provide a reference of applicable legislation, approvals, and guidelines;
- Provide a consolidated reference document for personnel when planning and conducting specific work activities or working in specific areas of concern; and
- Communicate any changes to protection measures through a documented revision process.



The scope encompasses all phases of construction from preconstruction planning through decommissioning and reclamation. Mitigation associated with Operation and Maintenance are not presented in this EPP but will be provided under separate cover (Owner document).

The EPP is a living document. Based on the current stage of planning, regional and/or site-specific environmental or regulatory considerations are still being characterized. Prior to construction commencement, the EPP will be updated to incorporate additional information as appropriate.

1.2 EPP ORGANIZATION

The EPP is organized into three general components:

- Site-specific mitigation measures – outlined in Section 1.5;
- Activity-specific mitigation measures – outlined in Sections 2 to 4; and
- Contingency and Management plans – outlined in Section 5.

Each of the project activities are presented within a respective Project Phase. Three phases are discussed:

- Planning Phase – which encompasses preconstruction activities ahead of clearing and access development.
- Construction Phase – which encompasses all construction activities, including clearing, access development, foundations, assembly, erection and stringing.
- Post-construction Phase – which encompasses activities associated with clean-up, decommissioning and reclamation.

The EPP incorporates and refers to a number of other key Project construction execution plans in order to provide consistent, concise and clear direction to Project personnel regarding project execution and environmental protection measures. Additional plans include but are not limited to the: *Clearing and Access Plan, Permitting and Approval Plan, Clearing and Timber Salvage Plan, Traffic and Access Management Plan, Erosion and Sediment Control Plan, Fire Prevention and Preparedness Plan, Traditional Land and Resource Use Protection Plan (TLRUPP), Reclamation Plan, Revegetation Plan, Project Management – Communications Plan, and Reporting Plan.*

1.3 ENVIRONMENTAL MANAGEMENT METHODOLOGY

The Project EMS is based on the ISO 14001 utilizing a 'Plan, Do, Check, Act' model. While the Project EMS can be adjusted to accommodate additional reporting requirements specific to a particular project, it generally remains unchanged between projects. This ensures consistent and thorough project environmental planning, risk identification, data collection, documentation control and reporting. The Project EMS ensures that all project documentation is accurate, organized, securely stored on a remote server and readily available to support any information requests from regulators and/or the Owner. It provides a detailed record to demonstrate due diligence and continuous improvement and is the cornerstone of environmental management.

The EPP is a project-specific component of the Project EMS developed by qualified professionals. While the Project EMS is the systematic process, the EPP provides a toolbox for mitigations that may be implemented to assure regulatory compliance and environmental protection is achieved. The EPP describes the Project location, scope and any known or anticipated environmental risks & requirements, activity-specific mitigations according to contract specifications and/or applicable environmental legislation or regulations (permits, approvals, commitments, etc.). This allows the content to be tailored to address specific areas of concern identified through



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regulatory processes like environmental assessments and in consultation with stakeholders, regulators and Indigenous communities providing an overall strategy for proactively maintaining environmental compliance. Mitigations are provided both by discrete construction activity as well as by area of concern.

While the EPP provides a summary of available mitigations, it is not prescriptive in nature. It does not identify which mitigation will be implemented at each site. This is intentional to ensure the EPP remains adaptive and flexible while still providing appropriate detail on identified site-specific and activity-specific mitigation measures. This allows Qualified Environmental Professionals in the field to implement appropriate and adequate mitigation based on current field conditions, timing, risk, professional judgement, etc. The EPP is maintained as a living document, allowing additional mitigation to be incorporated throughout the life of the project as appropriate as new information arises.

The development of mitigations within the EPP follows the mitigation hierarchy of avoid, minimize and mitigate. Avoidance focuses on both spatial avoidance and temporal avoidance including the incorporation of timing windows. Various environmental features have associated provincial or federal restricted access periods (RAP), least risk timing windows, preferred work periods, etc. Additionally, some features include recommended avoidance buffers either year-round or during sensitive periods. Timing restrictions for features often overlap or conflict whereby an assessment must be made to determine which components can be mitigated and which can be accommodated in consideration of the project schedule.

As a preliminary step, timing restrictions which affect extensive portions of the Project (e.g., bird nesting timing window which affect all vegetation clearing activities) are identified and included as constraints in the development of the execution schedule. Additionally, timing restrictions which affect discrete areas which may trigger protracted or costly regulatory processes (e.g., a Species at Risk (SAR) timing window) were also identified. The schedule is optimized to minimize activities which conflict with the timing restrictions. This is generally an iterative process balanced by need for linear work, work volume constraints, man-power loading, etc. Areas where application of the timing restriction is not possible either because of conflicting timing windows or other constraints are flagged. Such areas are subject to development of alternate mitigations which may require additional authorizations and input from applicable agencies.

The remaining restrictions are then reviewed to determine if:

- They are coincidentally addressed through application of another timing window (e.g., SAR bat roosting generally coincides with bird nesting timing windows and may therefore be addressed without explicit inclusion).
- There is a conflict based on the schedule and if it can be addressed through a minor spatial adjustment (i.e., micro-siting during tower spotting), modified work procedures (e.g., hand clearing in a buffer around a hibernacula), monitoring (e.g., preconstruction nest sweep during bird nesting timing windows), or alternate mitigations (e.g., using a clear span crossing to avoid instream work during a RAP).
- A localized timing restriction needs to be implemented.

This is then incorporated into the schedule and alternate mitigations are developed and incorporated into the relevant EPP if not already included.

Site specific mitigation plans are developed when novel conditions are encountered, to address a specific environmental feature or to incorporate the advice of a Qualified Environmental Professional (QEP) or conditions made as part of a regulatory permit approval. These plans supplement the mitigations provided in the EPP incorporating site specific data and current conditions and constraints.



1.4 IMPLEMENTATION OF MITIGATION MEASURES AND SUPPORTING PLANS

The effective implementation of the EPP mitigation measures relies on qualified and experienced staff to communicate with project management and construction teams. The responsibility for reviewing and communicating Project environmental requirements and promoting environmental compliance belongs to:

- Environmental Representatives;
- Right-of-Way (ROW) Supervisors; and
- Project Managers and Construction Management

QEPs will support environmental compliance on the Project. QEPs include applied scientists or technologists holding a recognized accreditation and/or have extensive field experience and expertise in a specific domain. QEPs also support Indigenous and stakeholder engagement, training, and employment programs for construction Environmental Monitors (EMs). The Project Environmental Manager (PEM) is a QEP with extensive experience in regulatory approvals, mitigation planning and construction monitoring. The PEM is responsible for reviewing and documenting environmental and regulatory requirements, and potential scope and schedule constraints to the Project. The PEM works closely with the Project and Construction Management Team to provide guidance regarding mitigation requirements and compliance monitoring as it relates to approvals and/or permit conditions. The PEM is responsible for resourcing the Project with adequate environmental staff or third-party environmental support and supervising these staff to ensure consistent implementation and maintenance of the Project EMS.

Where site conditions require implementation of the EPP's built-in flexibility (e.g., where operations must deviate from best management practices or standard operating procedures), a QEP or Environmental specialists will be assigned to support project requirements or to address specific or unforeseen environmental issues as required. The QEP will use the various standards, regulations, or other external documents as included in Appendix D to determine the appropriate mitigation measures to be implemented throughout construction execution to reduce potential environmental impacts of the project. This includes referring to the values as outlined in the Project TLRUPP and ensuring these are integrated into mitigation measures throughout the EPP or when developing site-specific mitigation measures, as appropriate.

The QEPs are supported by on-site Environmental Project Leads (PEL's), Environmental Coordinators (ECs), Environmental Monitors (EMs) and ROW Coordinators who work closely with Construction Management and Field Supervisors to communicate and implement appropriate mitigation measures consistent with project environmental requirements.

The QEPs, PELs, ECs and ROW Field Coordinators have the authority to stop work if an environmental incident is occurring or is imminent without appropriate additional mitigation measures in place.

1.5 SITE-SPECIFIC MITIGATION MEASURES

Site-specific mitigation measures will be developed as required for sensitive locations where additional mitigation measures beyond activity-specific mitigations are needed. These sensitive locations are collectively referred to as environmentally sensitive areas (ESAs) in the EPP. Necessary environmental permits and approvals will be obtained prior to the construction in environmentally sensitive areas and notification will be provided to affected Indigenous communities if features were previously unknown or cannot be avoided. ESAs include, but are not limited to the following:

- Areas of Concern (AOC);
- Provincially Significant Wetlands (PSW);



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- Aquatic and Fish Habitat;
- Areas of Natural and Scientific Interest (ANSI);
- Woodlots and Significant Woodlands;
- Significant Wildlife Habitat (SWH);
- Significant Valleylands;
- Significant Species at Risk (SAR) habitat; and
- Provincial Parks and Conservation Reserves.

Environmentally Sensitive Area (ESA)	Site-specific Mitigation Measures
<i>Provincial Parks and Conservation Reserves</i>	<p>1.5.1 Within the Campus Lake Conservation Area, there will be no disturbance to the weir and remnant sluice at the outlet of Mable Lake:</p> <ul style="list-style-type: none"> • New roads will be built to avoid area: and, • ROW will be marked to prevent equipment encroachment at ROW Crossing. <p>1.5.2 Tree planting in Provincial parks and conservation reserves will occur on off-ROW roads that required new clearing and construction during construction and on Helicopter pads located within the campus lake conservation reserves.</p> <p>1.5.3 Construction routes will be designed to avoid key access roads/entrances to parks and conservation areas to the extent practical. In coordination with Parks Administrators and the Ministry of Natural Resources (MNR) and within the scope existing provincial park management plans and conservation reserve management statements, appropriate restriction protocols will be implemented within affected parks and conservation areas as required to promote user access while maintaining user safety.</p> <p>1.5.4 Signage will be installed on access roads, where permissible by MNR, to limit the unauthorized access to provincial parks.</p> <p>1.5.5 Signage will be used to minimize human annoyance at identified potential points of receptions. Signage will be installed on the ROW to indicate park boundaries and alternate access points to park users. Signage will also be used to notify road users of road closures, lane closures and other disturbance to local roadways. Signage will be placed in engagement with appropriate authorities.</p> <p>1.5.6 Within the Campus Lake Conservation Area, there will be no disturbance to the weir and remnant sluice at the outlet of Mable Lake.</p> <p>1.5.7 Proposed Helicopter Pad (ID#H_147) within the Campus Lake Conservation Reserve will not be grubbed or stripped and stumps will be cut at 15 cm off the ground but not removed. Lesser vegetation will be retained to maintain soil integrity.</p>



	<p>1.5.8 The use of an existing access road to cross Quetico Provincial Park will be permitted provided Ontario Parks parking lots/areas will not be used for construction vehicles or materials, speed limited for construction vehicles will be modified and warning signage will be installed.</p> <p>1.5.9 Appropriate mitigation will be implemented according to records obtained by Hydro One for black tern in Campus Lake Conservation Reserve and peregrine falcon in Turtle River-White Otter Provincial Park</p> <p>1.5.10 Enhanced and active vegetation recovery methods will be used on all disturbed land within Provincial Parks and Conservation Reserves, using seed mixes approved by MNR and/or MECP as appropriate. In instances where enhanced methods do not increase reclamation success, Hydro One may engage with Ontario Parks for alternate approaches (i.e., natural regeneration).</p>
<i>Fish and Fish Habitat</i>	<p>1.5.11 Additional site-specific mitigation measures will be considered when working within the 120 m setback for Lake Trout Lakes. The applicability of these measures will be determined on a case-by-case basis and may include:</p> <ul style="list-style-type: none"> • Use of less intrusive crossing structures such as clear span bridges and ice roads/snow fills to limit instream work and potential for erosion and sedimentation; • Installation of crossing structures outside of RAP; • Leaving root collar and root wads intact and restricting grubbing for winter roads to support stable banks and mitigate erosion potential. • Maintain maximum possible setback from Lake Trout Lakes; • Inspect and implement additional sediment and erosion measures where slopes have increased erosion potential and 120 m setbacks are not feasible; • In steep areas or areas prone to higher erodibility, multiple barriers will be considered, such as filter logs used in conjunction with silt fencing; and, • Increased monitoring of sites within these sensitive areas to confirm effectiveness of the mitigation measures implemented to protect Lake Trout Lake habitat.
<i>Provincially Significant Wetland (PSW), Source Water Protection Areas/Vulnerable Areas/Water Wells</i>	<p>1.5.12 Additional design refinements at the Little Falls PSW and the associated 120 m setback would require an EA amendment, unless proposed changes reduce potential impacts (e.g., structures and access roads are moved further away).</p> <p>1.5.13 Project components will be located outside the 120 m setback from wetlands that are confirmed to contain wild rice or is classified as a PSW</p>



	<p>to the extent possible. If project components cannot be moved outside of a wild rice area or PSW, affected Indigenous communities will be engaged.</p> <p>1.5.14 Areas that are confirmed to contain wild rice will have a 120 m set back and a variable-width of 30 m to 90 m no operations reserve based on slope as per the following criteria:</p> <ul style="list-style-type: none"> • 30 m AOC - 0-15% Slope; • 50 m AOC - >15-30% Slope; • 70 m AOC - >30-45% Slope; and • 90 m AOC - >45% Slope. <p>The reserve is measured in the field from the first occurrence of standing timber. The actual widths will be measured in the field based on field conditions and widths may be adjusted based on slopes encountered in the field at the time the cut boundary is established. No new roads, landings or aggregate pits are permitted within the reserve portion of the AOC.</p> <p>1.5.15 Known (confidential) Cultural Heritage Values will have a 200 m reserve measured from the centre of the site (no harvest, renewal or tending operations permitted). A 150 m reserve or a larger reserve as mapped, measured from the high-water mark, will be applied around the site (no harvest, renewal or tending operations permitted). No operational roads, landings or forestry aggregates are permitting in known Cultural Heritage Values. All boundaries of known Cultural Heritage Values will be flagged using the same flagging as other AOC's as to not draw attention to these confidential areas.</p> <p>1.5.16 Cultural Heritage Landscape Values will have a 30 m reserve for structural remains (i.e., buildings, bridges, docks, old logging camps etc.) or wrecks (i.e., old abandoned vehicles, machines, mining equipment, early harvesting equipment etc.) unless an existing road intersects within the 30 m in which case an as mapped reserve can be applied. All boundaries of these values will be flagged using the same flagging as other AOC's as to not draw attention to the purpose of its establishment.</p> <p>1.5.17 Trapper cabins will have a 30 m reserve, as measured from the cabin, extending from the cabin in all directions. No harvest, renewal or tending operations, new operational roads or aggregate pits are permitting within the 30 m reserve.</p> <p>1.5.18 The following mitigations applied to trails and trail systems that are officially recognized by commercial or recreational organizations:</p> <ul style="list-style-type: none"> • While operations are underway care will be taken to ensure the trails are not obstructed or damaged during any operations. The trails will be kept free of debris and barriers to travel;
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	<ul style="list-style-type: none"> • In general, efforts will be made to minimize damage or disturbance of the trail. The following measures will be considered when operations must occur adjacent to or directly on existing trails; • Where activities on the trail are seasonal in nature, operations may be scheduled to avoid conflicts with trail users; • Landings will be placed away from view of the trail; • Skidding on trails will be prevented unless it is to avoid crossing the trail with a road; • Trails may be temporarily re-located, with proper consultation with the users; • Public safety will be addressed by warning signs and/or temporary barriers; • Where interested and/or affected parties using the trail(s) are known, Permittee will make reasonable efforts to contact parties prior to the commencement of operations; • Trails will be cleared of logging debris and rehabilitated following operations. Preserving the trail base and ensuring that it is not obstructed by debris will provide for use of the trail after operations have been completed; • AOC Dimensions: 40 metres total (measured from trail centreline 20 metres each side). The following practices will be implemented on recognized trails: <ul style="list-style-type: none"> ○ Trails will be marked prior to harvest and site preparation by ribboning windfirm trees (<7 m height) along the edge of trail and leaving these trees standing (the number of trees left along the trail will be determined by operations personnel based on visibility of the marked trees (ability to recognize and follow the trail), which will be dependent on terrain – for example, operators may chose to leave one tree every 10 m on either side of the trail). These trees may be stubbed if wind firmness is questionable; ○ No debris to be left on trail; ○ Minimal skidding across trail; ○ No site preparation or regeneration on trails; ○ Trails will not be “improved” or established without prior written MNRF approval; and ○ Following operations, trails will be rehabilitated and cleared of debris along the length of the trail where operations occurred. • Operational roads are permitted to cross the trails under the following conditions: <ul style="list-style-type: none"> ○ Minimal bulldozing at crossing point;
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	<ul style="list-style-type: none"> ○ No debris to be pushed onto trails; ○ Trails will be rehabilitated and cleared of debris following operations; ○ Road construction personnel will attempt to construct the road in a way that will not impede use of the trail (i.e. to the extent possible based on local conditions avoid high, impassable ditches or ridges); ○ Landings are to be placed away from view of the trail; and ○ No new aggregate pits permitted on the trails. <p>1.5.19 Refuelling within Fly Yards F_56 and F_57 will only be permissible outside of the well head capture zones of the PTTW #2017-9LDKKS wells. The well head capture zone will be determined based on previous reporting in support of PTTW #2017-9LDKKS and/or continued engagement with the MECP and the well owner.</p>
<p><i>Other Land Uses (Mining, Railways, Pipelines, Forestry Plots, Municipalities)</i></p>	<p>1.5.20 Access into the Steep Rock Mine contamination areas will be restricted to tree clearing activities along the transmission line ROW only. No disturbance of soils will be permitted outside of the installation of Structure 2A-032 (note that MNR has confirmed the area near Structure 2A-032 and access trail to the same is not subject to contaminated soils).</p> <p>1.5.21 Based on the area of contamination within the Steep Rock Mine, the following mitigation measures will be implemented:</p> <ul style="list-style-type: none"> • A new access road will be used outside the western and northern boundary of the area of contamination. Access development within the area of contamination will not be completed except to access Structure 2A-032; • only necessary overstory vegetation will be mechanically cut along the proposed transmission line right-of-way and additional precautions will be implemented to protect workers operating clearing equipment (e.g., replacement of cabin filters in equipment, additional PPE, cleaning stations etc.); and, • felled trees along the ROW within the area of contamination will be left onside to decompose. <p>1.5.22 Established and closed waste disposal sites will have a 100 m modified zone as measured from the outer boundary of the waste disposal site, unless otherwise specified. Modified operations to include:</p> <ul style="list-style-type: none"> • Road building restrictions- no ditching, grubbing or levelling of existing material within the modified AOC (i.e. material for road building must be imported onto site). • Tree removal/harvest restrictions- mulching or winter harvest only.



	<ul style="list-style-type: none"> • Permanent structure restrictions- no permanent structures (i.e. towers) within WDS footprint. • Equipment storage restrictions: No storage of equipment or materials for, or causal of, construction activities (overburden, trees, etc) on waste disposal site footprint. Area should be flagged to prevent use. <p>A single 4 m maximum width skid trail that is not perpendicular to the site (ideally on a 45-degree angle of curved) is permitted. Immediately upon completion of cut and skid operations, the skid trail must be rendered impassible to 4x4 highway rated vehicles.</p> <p>1.5.23 In the event that there are proposed operations that overlap with an authorized aggregate pit, a written letter of consent detailing the proposed operations (i.e., harvest, ROW clearing, road construction, grubbing) will be acquired from the permittee. A copy of the correspondence will be provided to MNR. Aggregate cannot be removed from the permitted area without written consent of the permittee.</p> <p>1.5.24 TransCanada pipelines will have 30 m setback on either side of the pipeline centreline. All flagged boundaries adjacent to the TransCanada pipelines right-of-way will be harvested during daylight hours only and no trees are to be felled onto the pipeline right-of-way. In instanced where trees are accidentally felled onto the pipeline right-of-way, TransCanada will be contacted to obtain approvals prior to removing the felled timber. Prior to any excavation work (i.e., mechanical site preparation, road construction, blasting etc.) within the AOC, TransCanada must be notified of the proposed work so TransCanada staff can mark the location of the pipeline and the area where work is not permitted. The transmission line ROW through the AOC will be cleared to the minimum width required for construction, not to exceed 15 m. However, the maximum width of 30 m may be considered based on field conditions and safety considerations in consultation with MNR.</p> <p>1.5.25 Forestry Plots have a no harvest, renewal or tending within a 120 m radius circular reserve measured from the Permanent Sample Plot (PSP) centre (4.52 ha), squared off such that the final reserve is 240 m by 240 m (5.76 ha). If a road is permitted outside of the 120 m radius from the plot centre yet within the squared off AOC boundary, adjust the AOC boundary to follow the edge of the road ROW (i.e., do not extend the AOC to include area on the opposite side of the road to the PSP centre). For Permanent Growth Plots (PGP) no harvest, renewal or tending within a 75 m radius circular reserve measured from the PGP centre (1.77 ha) and no roads, landings or aggregate pits are permitted within the AOC.</p> <p>1.5.26 Railways will have a 30 m setback on either side of the railway centreline. Normal harvest operations are permitted however the slash and/or chipper debris will be removed from the area within the AOC. No new operational</p>
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	<p>roads are permitted within the AOC with the exception of a crossing if required. Prior to construction of the crossing approval must be obtained from the railway authorities and all approval conditions must be followed.</p> <p>1.5.27 A qualified professional will conduct an assessment of Black Ash trees in accordance with Ontario Regulation 6/24, within the city limits of the City of Thunder Bay. Note that only existing municipal and provincial access roads as part of the construction access plan fall within city limits. If any new clearing is required within city limits, ensure that the following measures are implemented:</p> <ul style="list-style-type: none"> • If any Black Ash trees are assessed to be unhealthy, a report will be submitted to MNR and/or MECP prior to the commencement of any activity that may impact the Black Ash tree. • If any Black Ash are assessed to be healthy and greater than 8 cm at a stem height of 1.37 m, MECP SARB will be contacted to acquire any necessary ESA authorizations.
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2 PLANNING

The Planning Phase of the Project includes activities carried out prior to construction. This includes regulatory approval, pre-construction reconnaissance (i.e., constructability surveys), environmental field surveys, preliminary geotechnical investigations and structure and ancillary workspace planning. Prior to any field-based planning and construction activities, all necessary permits, approvals and agreements will be obtained.

2.1 GEOTECHNICAL AND ENVIRONMENTAL SURVEYS

Activity/Concern	Mitigation Measures
<i>Constructability Surveys</i>	<p>2.1.1 Acquire locates prior to construction activities as appropriate.</p> <p>2.1.2 Complete pre-construction field reconnaissance to ensure:</p> <ul style="list-style-type: none"> • Assumptions made during desktop planning are verified; • Proposed access plan and other project feature siting is viable and evaluated for technical, safety and environmental constraints; • New access can be constructed using customary construction methods, materials and techniques as detailed in the plans and specifications and where not possible what modified requirements may be required; and • Project feature siting and the access plan are optimized to avoid, minimize and mitigate constraints through design.
<i>Geotechnical Investigations</i>	<p>2.1.3 Reduce ground disturbance during geotechnical investigations by using appropriate equipment (e.g., low ground-pressure vehicles, wide pad tracks, etc.).</p>



Activity/Concern	Mitigation Measures
	<p>2.1.4 Conduct a geotechnical investigation at structure locations, where access is available, to confirm appropriate foundation types and account for groundwater if encountered. Geotechnical investigations may be conducted in two phases where possible (pre-construction to support the preliminary design, and post-clearing ahead of construction to validate structure and foundation selection).</p> <p>2.1.5 For pre-construction geotechnical investigations select locations that are previously disturbed to the extent possible.</p> <p>2.1.6 Ensure soil and subsoil materials brought to the surface during geotechnical investigations are returned to the drill hole upon completion of the investigation.</p> <p>2.1.7 If excess soil is produced (i.e., soil that will be removed from the project), materials will be managed in accordance with Ontario provincial and municipal requirements. Refer to the Soil Management Plan (Section 5.4) for additional information.</p> <p>2.1.8 Avoid work within provincially/locally designated Vulnerable Areas (namely Wellhead Protection Areas [WHPAs]; Intake Protection Zones [IPZs]; and Highly Vulnerable Aquifers [HVAs]) where reasonably possible.</p> <p>2.1.9 Avoid springs or groundwater, where practical. If springs or groundwater are encountered, ensure appropriate foundations are selected.</p>
<p><i>Field Surveys and Constraints Mapping</i></p>	<p>2.1.10 The Project will ensure constraint mapping identifying known environmental constraints (ESA's, invasive weeds, archaeological sites, etc.) will be established and supplemented with incidental findings from field surveys.</p> <p>2.1.11 If required, prior to construction, carry out field surveys to confirm and demarcate in the field ESA's (e.g., candidate SWH), invasive species, known natural, cultural and recreational values, areas of importance to affected Indigenous communities (e.g., plant/medicine gathering areas), etc., and associated setbacks. Surveys will be carried out per provincial protocols, where available or site-specific protocols developed by QEPs and consulted on with appropriate regulators. Where it is not possible for Valard to carry out field surveys to confirm candidate SWH, site-specific mitigation measures will be conservatively applied where reasonable (i.e., where they do not significantly disrupt the project schedule or activities).</p>



2.2 FINAL STRUCTURE PLACEMENT AND WORKSPACE ALLOCATION

Activity/Concern	Mitigation Measures
<i>Structure Placement</i>	<p>2.2.1 When siting structures, where practicable, avoid known ESAs. Known ESAs are features identified through the regulatory process, field surveys, in provincial data sets or culturally important areas identified by affected Indigenous communities and mapped on environmental constraints maps/mapping tools.</p> <p>2.2.2 Where practicable, structures will be located outside the required buffer for watercourses, waterbodies, and wetlands to maintain ground cover and prevent erosion.</p> <p>2.2.3 Obtain regulatory approvals for structures that are required to be located within the high-water mark. Additional mitigation measures will be developed in collaboration with affected Indigenous communities and incorporated into the EPP, as appropriate.</p> <p>2.2.4 Towers will be located along fence/property lines where practical to reduce impacts to agricultural operations, to the extent reasonably possible.</p> <p>2.2.5 Where practicable, towers will be sited to minimize impacts to maneuverability of agricultural equipment, such as along fence rows and/or property boundaries.</p> <p>2.2.6 The number of towers within provincial parks will be minimized to the extent reasonably possible.</p>
<i>Watercourse crossings and wetlands</i>	<p>2.2.7 Develop a Project Access Plan for on and off ROW Access to limit watercourse crossings and access through wetlands (e.g., PSWs) to the extent practicable. Refer to mitigation measure 1.5.12 for Little Falls PSW and the required 120 m setback.</p> <p>2.2.8 Optimize construction to develop winter access in areas with extensive wetlands.</p> <p>2.2.9 Avoid access development and tower placement within PSWs to the extent practicable. Refer to mitigation measure 1.5.12 and 1.5.13 specifically for project components (tower placement) approval process within PSWs.</p> <p>2.2.10 Use existing watercourse crossing structures where available and suitable for construction access to the extent practicable.</p> <p>2.2.11 Identify proposed and alternate crossing methods and use the Ontario Watershed Information Tool (OWIT) to determine watershed characteristics. This provides the metrics for calculation using the Culvert</p>



Activity/Concern	Mitigation Measures
	Analysis Program to facilitate the selection of the appropriate design and sizing for watercourse crossing structures.
<i>Access Plan Development</i>	<p>2.2.12 Existing access will be used where possible to limit the Project's incremental footprint.</p> <p>2.2.13 Plan access to avoid known ESAs to the extent practicable.</p> <p>2.2.14 Where reasonably possible, construction routes will be designed to avoid key access roads/entrances to parks and conservation areas, tourism establishment areas, campsites, boat launches and caches, aquatic access points and trailheads.</p> <p>2.2.15 Plan access to minimize reversing and the use of backup beepers, where practical.</p> <p>2.2.16 Unless approved by regulatory agency or located at an approved water crossing locations, access will be located outside of the required buffer for watercourses, waterbodies, and wetlands to maintain ground cover and prevent erosion.</p> <p>2.2.17 Use equalization/drainage culverts or similar methods to maintain drainage in construction of access roads.</p> <p>2.2.18 Access planning will consider tile drains to minimize impacts to drainage to the extent practicable.</p> <p>2.2.19 Access roads will be planned to minimize impacts to agricultural areas as practicable.</p>
<i>Temporary Workspace Placement (Laydown Yards, Work Camps, Fly Yards, Pull Sites, Aggregate Pits)</i>	<p>2.2.20 Temporary workspaces will be sited within previously disturbed areas, wherever practicable to limit the Project's incremental footprint.</p> <p>2.2.21 Where reasonably possible, temporary laydown and construction camps will be located on a reasonably flat area with stable soil, near existing all-weather access.</p> <p>2.2.22 Locate temporary workspaces outside of the required buffer of 30 m from the ordinary high-water mark for any watercourse, waterbody or marsh or shallow water marsh or shallow water wetland. The distance of the setback from temporary workspaces will depend on the slope adjacent to the waterbody and will follow the guidelines outlined in the Forest management guide for conserving biodiversity at the stand and site scales.</p> <p>2.2.23 If the required buffer of 30 m cannot be achieved MNR will be notified and no work within the buffer will occur until appropriate approvals are obtained.</p>



Activity/Concern	Mitigation Measures
	<p>2.2.24 Necessary permits and approvals will be acquired for diesel generators used for electricity at temporary construction camps. Generators will be operated in compliance with applicable regulations and guidelines.</p> <p>2.2.25 Tile beds will be avoided (e.g., tower locations, temporary construction access), to the extent practicable.</p>

3 CONSTRUCTION PROTECTION MEASURES

3.1 RIGHT-OF-WAY AND WORKSPACE PREPARATION

Construction ROW and workspace preparation involves vegetation clearing which includes the removal of brush and trees, and the salvage of timber as required. Generally, trees and shrubs that are within the defined limits of the construction ROW will be removed, unless site-specific plans have been developed. In some areas, such as in the vicinity of watercourse crossings or other ESAs (e.g., woodlots), compatible vegetation will be retained. Vegetation clearing will be kept to the minimum required to safely complete the work in all temporary workspaces.

The removal of fences, small infrastructure, rocks and any other obstructions to equipment is also required for workspace preparation. For some project features (e.g., laydown yards) soil stripping and pad levelling may be required and is discussed in Section 3.2, Access and Workspace Construction. Temporary fencing will be installed at construction areas, as warranted, for safety. The Project Execution - Construction Plan provides a fulsome description of all construction activities (provided under separate cover).

The following measures are to be implemented during field activities:

Activity/Concern	Mitigation Measures
<i>Staking/Flagging</i>	<p>3.1.1 Stake/flag and/or use GPS-equipped machinery to demarcate the Project footprint and sensitive features in the field to ensure all Project activities remain within the approved boundaries. This will include the construction ROW, temporary workspaces, structure pads and access roads.</p> <p>3.1.2 ESAs, areas of importance to affected Indigenous communities (e.g., plant/medicine gathering areas) and archaeological, paleontological, or cultural features identified on environmental constraints maps through preconstruction field surveys or through the regulatory process will be flagged or fenced. Appropriate buffers will also be flagged, as applicable.</p> <p>3.1.3 Use standardized flagging colours and patterns developed for the Project to delineate the various types of features.</p> <ul style="list-style-type: none"> • Yellow: • No Machine Buffer Zone Pink: <ul style="list-style-type: none"> ○ ROW Boundary • Blue:



Activity/Concern	Mitigation Measures
	<ul style="list-style-type: none"> ○ Watercourse Centerline • Pink/Black Stripe: <ul style="list-style-type: none"> ○ Off ROW Road Boundary <p>3.1.4 Stake or flag ROW and access crossings of watercourses, waterbodies, wetlands, rail lines, buried facilities, roads and highways (including appropriate buffers) as applicable.</p>
Schedule	<p>3.1.5 Optimize the construction schedule to avoid vegetation clearing during the migratory bird breeding season where practicable. In the event vegetation clearing is required during the breeding bird season, refer to the Wildlife Management Plan, Section 5.9.</p> <p>3.1.6 Optimize schedule to avoid clearing in SWH during sensitive timing windows for wildlife, particularly SAR, to the extent practicable.</p> <p>3.1.7 Prioritize clearing and construction in wet and saturated areas during winter, to the extent practicable. In situations where winter construction in sensitive wetlands cannot be achieved, affected Indigenous communities will be notified and additional mitigation measures will be implemented as reasonably possible.</p> <p>3.1.8 Notify affected Indigenous communities, landowners, and stakeholders within the project footprint of the planned construction schedule before the start of construction.</p> <p>3.1.9 Engage with the appropriate land-use planning authority for land-use related permissions and permits for all areas, municipalities and unincorporated/unorganized townships. This may include engaging with the applicable rural planning boards that encompass both small municipalities and unincorporated areas.</p> <p>3.1.10 Prior to construction, appropriate permits, licenses and other approvals will be acquired in accordance with the project's Permit and Approvals Plan to satisfy the conditions of provincial, and municipal land use planning and parks management documents (i.e., the Planning Act, PPS 2020, CLUPA, the Growth Plan for Northern Ontario, the Northern Services Board Act, local roads boards and rural planning boards.</p> <p>3.1.11 As part of the process to obtain an Overlapping Licence Agreement with each Sustainable Forest Licence (SFL) holder, engage with each SFL holder to discuss:</p> <ul style="list-style-type: none"> • Harvest and utilization plan for merchantable and non-merchantable trees; • Disposal plans for non-marketable trees and non-merchantable portions of trees; • Available markets, product specifications and pricing for harvested timber;



Activity/Concern	Mitigation Measures
	<ul style="list-style-type: none"> • Wood supply commitments in accordance with SFL conditions; • Use and maintenance of forest access roads; • Potential synergies, or conflicts, in timing of operations with the SFL holders (e.g., road use and maintenance, timber harvest, wood haul); • Disruption of recently renewed/established post-harvest areas; and • Rehabilitation and regeneration of disturbed sites.
<i>Workspace</i>	3.1.12 Clearing or grading, where required will be limited to the staked boundaries of the construction ROW and workspace. Trees will be felled into or parallel to the ROW to ensure no damage to adjacent properties.
<i>Fences</i>	3.1.13 Where livestock is present (and cannot be relocated during construction), install gates in fences crossed by the construction ROW and ensure they are closed at the end of each workday.
<i>Wildlife</i>	<p>3.1.14 Refer to the Wildlife Management Plan (Section 5.9) for clearing and access development requirements (e.g., SAR and retention).</p> <p>3.1.15 Refer to the Wildlife Management Plan (Section 5.9) for requirements regarding wildlife observations and interactions.</p>
<i>Clearing</i>	<p>3.1.16 Disturbance to the natural landscape will be avoided where practicable in areas where camping, commercial tourism, recreational activities or recreational infrastructure is present.</p> <p>3.1.17 Limit vegetation clearing around important canoe routes, portages and recreational trails to where necessary for safety standards. Keep portages clear of vegetation debris and maintain the existing grade or the portage in a manner that is safe for recreational users.</p> <p>3.1.18 Retaining existing vegetation, and landforms, to the extent practicable, to provide screening of activity and Project components.</p> <p>3.1.19 Compatible vegetation will be retained in riparian areas where practicable.</p> <p>3.1.20 Maintain visibility on both sides of the ROW by avoiding stockpiling of vegetation or soils at access points for portage routes and access roads for recreational users.</p> <p>3.1.21 Review planning harvest allocations from approved FMPs as they relate to Project construction activities including clearing of the ROW and use of land for temporary Project components (i.e., construction camps and laydown yards).</p> <p>3.1.22 Fall trees away from watercourses, waterbodies and wetlands and away from limits of the construction ROW to reduce damage to stream banks, beds and adjacent trees. Remove any trees, debris and soil inadvertently</p>



Activity/Concern	Mitigation Measures
	<p>deposited within the high-water mark and riparian buffers in a manner that reduces disturbance of the bed and banks.</p> <p>3.1.23 Do not skid or drag trees across watercourses, waterbodies and/or wetlands during non-frozen conditions. Limit and remove, to the extent practicable, debris falling into watercourses and waterbodies.</p> <p>3.1.24 Use equipment that minimizes surface disturbance, soil compaction and topsoil loss (e.g., equipment with low ground pressure tires, or wide pad tracks), when working in wet areas, under wet conditions, or during spring break-up.</p> <p>3.1.25 Refueling of vehicles and/or large mobile equipment will not occur near sensitive receptors (e.g., watercourses, wetlands, wildlife features) to avoid damage resulting from potential spills. Refueling of small equipment in wetlands will be avoided to the extent reasonably possible. If refueling of small equipment (e.g., chainsaws, generators, light plants, etc.) within wetlands is necessary due to logistical constraints, additional mitigation measures will be implemented (e.g., two-man refueling monitoring, spill tray placed under the fuel nozzle, on hand spill kit/pad materials). Under no circumstance will refueling occur where flowing or standing water is present.</p> <p>3.1.26 Complete clearing with appropriate harvesting equipment including feller-bunchers, mulchers, and hand cutting where required. Hand felled trees will be bucked and delimbed to lie close to the ground.</p> <p>3.1.27 When clearing within conservation areas, retain compatible vegetation to the extent reasonably possible, and minimize soil disturbance to erosion prone areas.</p> <p>3.1.28 Compatible vegetation (i.e., low, slow growing) will be retained along the construction ROW, where it will not interfere with construction activities or system reliability.</p> <p>3.1.29 Herbicides will not be used during any phase of the Project, including construction, operation and maintenance.</p> <p>3.1.30 Deck merchantable timber at designated landings within the ROW in a manner that is accessible to hauling trucks. Sites will be planned to maintain adequate offset from ESAs.</p> <p>3.1.31 Merchantable timber will be salvaged per the Timber Salvage plan (Section 5.6).</p> <p>3.1.32 Any “electrical hazard” trees that would or could fall within the safe limits of approach of the electrical conductors (as outlined the <i>Occupational Health and Safety Act</i>) must be identified and felled in advance by qualified personnel.</p>



Activity/Concern	Mitigation Measures
	<p>3.1.33 Implementation of physical and line of sight barriers may be considered, as prescribed by Hydro One, to address concerns related to the Project's influence on predatory sightlines and facilitated travel.</p>
<i>Dust Control</i>	<p>3.1.34 Refer to the Dust Control/Air Quality Plan (Section 5.1) for dust control requirements.</p>
<i>Clearing near Watercourses, Waterbodies, and/or Wetlands</i>	<p>3.1.35 Refer to the Fish and Fish Habitat Management Plan (Section 5.8.) for clearing requirements near watercourses, waterbodies and wetlands.</p> <p>3.1.36 Adhere to identified buffers, setbacks and machine-free zones (refer to the Fish and Fish Habitat Protection Plan section 5.8 for additional mitigation measures):</p> <ul style="list-style-type: none"> • 30 m riparian area for watercourses and waterbodies. • 10 m riparian area machine free zone. • 120 m setback for wetlands with confirmed wild rice and wetlands that are classified as a PSW. • 120 m setback for Little Falls PSW (note: project components within Little Falls PSW requires EA amendment). <p>3.1.37 Disturbance to wild rice habitat identified by Indigenous communities and wetlands that are classified as a PSW will be minimized with a 120 m protective buffer. Project components will be located outside of 120 m and where this is not reasonably possible, affected Indigenous communities will be engaged and an enhanced mitigation measures will be developed for respective areas, as appropriate.</p> <p>3.1.38 When access with machinery is not practical or desirable to meet other environmental mitigation measures, use hand cutting and/or winching /buncher arm to selectively remove trees in proximity to watercourses and waterbodies. Buck and delimb hand felled trees to lie close to the ground.</p> <p>3.1.39 Maintain compatible vegetation or vegetated ground mat within the riparian area of watercourses, waterbodies and wetlands where the construction ROW crosses these areas, to the extent practical.</p> <p>3.1.40 Use existing trails, roads or cut lines where practicable to avoid new disturbance to the riparian vegetation and prevent soil compaction.</p> <p>3.1.41 Establish watercourse crossing structures as required to support construction activities.</p> <p>3.1.42 Implement appropriate precautions to prevent deleterious substances (e.g., gasoline, oil, wet concrete, sediment, etc.) from entering watercourses, waterbodies, or wetlands. Implement handling and storage</p>



Activity/Concern	Mitigation Measures
	<p>measures outlined in Sections 5.11, 5.12, 5.13, and 5.14 and the Erosion and Sediment Control Plan (Section 5.15), as required.</p> <p>3.1.43 Keep emergency spill kits onsite at strategic locations (e.g., fueling stations) and on each piece of equipment in the event fluid leaks or spills from machinery.</p>
<i>Stumping</i>	<p>3.1.44 Reduce the extent of stumping through wet areas to facilitate the restoration of shrub communities.</p> <p>3.1.45 Restrict stumping within vegetated buffers adjacent to watercourses, waterbodies or marsh or shallow water wetlands, unless necessary (e.g., equipment crossing location). Where clearing is necessary, maintain vegetative ground mat and root structure intact and retain compatible (i.e., low, slow growing) vegetation to the extent practical.</p> <p>3.1.46 Limit stumping to travel lanes, structure pads, laydown yards and camps to reduce surface disturbance.</p> <p>3.1.47 Restrict stumping on slopes prone to erosion and steep slopes to reduce soil disturbance and erosion.</p>
<i>Buried Facility Crossings</i>	<p>3.1.48 Follow the conditions of the Crossing Agreements when crossing buried facilities.</p> <p>3.1.49 Equipment with low bearing capacity will be used, where feasible.</p> <p>3.1.50 Where feasible, temporary access roads and work pads may be built using mats or geotextile and crushed rock, which can be easily removed when construction is complete to allow for re-cultivation of the area.</p> <p>3.1.51 As necessary, other constructed access roads (e.g., timber mats, etc.) may be considered in unique circumstances.</p> <p>3.1.52 Communication will be maintained with applicable utility operators regarding work schedule and other items of interest.</p>
<i>Buried tile drainage</i>	<p>3.1.53 Footprint of construction access, laydown and work areas within agricultural fields will be minimized.</p> <p>3.1.54 Tile beds will be avoided (e.g. tower locations, temporary construction access), to the extent practicable.</p> <p>3.1.55 Any assessment, reports (e.g. pre-condition reports) and permits will be obtained as required. Modifications to subsurface tile drains will be conducted using a specialized contractor.</p> <p>3.1.56 Management of all construction water, including water conveyed by tile drains, will be in accordance with all applicable regulations, best practices and requirements.</p>



Activity/Concern	Mitigation Measures
	<p>3.1.57 Measures to prevent flooding to surrounding properties as a result of modifications to the existing subsurface tile drainage or inadequate construction dewatering will be employed as required.</p> <p>3.1.58 Water management records will be maintained and provided in monthly reporting (refer to Environmental Monitoring and Reporting Plan (Section 5.20)).</p> <p>3.1.59 Mitigation measures to prevent damages, and repair and/or remediate all damages will be employed. If damage occurs, tile will be repaired by a licensed tile drainage contractor.</p>
<p><i>Non-merchantable timber and slash disposal</i></p>	<p>3.1.60 Refer to the Timber Salvage Plan (Section 5.6) for additional information of timber and slash disposal.</p> <p>3.1.61 Dispose of timber not salvaged for merchantability through burning or mechanical chipping.</p> <p>3.1.62 Non merchantable trees being disposed by means of piling and burning will be sheared at the stump using bulldozers equipped with shear blades, under suitable conditions. Other means of cutting will be utilized (e.g., cut with feller buncher) if conditions prohibit the use of shear blades.</p> <p>3.1.63 Woody debris will be chipped/mulched and spread over the ROW to a depth of 18 cm or less or burned in compliance with O. Reg. 207/96. In select areas small amounts of slash may be retained to support reclamation and/or access management (e.g., rollback).</p> <p>3.1.64 If slash and debris windrows are required, windrows will be left open at all roads or access trails, along property lines, and along wetlands and watercourses to provide access for wildlife not capable of crossing low vegetation piles. Windrows will be left open at all known and incidentally discovered wildlife corridors. Windrows may be left to decompose naturally.</p> <p>3.1.65 Obtain required permits and approvals from MNR, municipality, the fire department and agreements with landowners and Sustainable Forest Licence Holders prior to burning and provide notification in advance of burning activities.</p> <p>3.1.66 Comply with outdoor fires regulations under the <i>Forest Fires Prevention Act</i>.</p> <p>3.1.67 Burning will be completed in accordance with the condition set out in a Burn plan and will not be undertaken when a high fire hazard rating is present.</p> <p>3.1.68 To the extent practicable, avoid locating burn piles on peat-rich areas where residual fires may persist or within 100m of a watercourse. Use</p>



Activity/Concern	Mitigation Measures
	infrared scanners to inspect and confirm all burn piles are fully extinguished.
	3.1.69 Smoke will be limited during burning by limiting pile size, maintaining loose burning piles with minimal soil, and limiting moisture content.
	3.1.70 When mechanical means of brush disposal are used (i.e., mulching or chipping), spread the material to avoid accumulation of flammable material and comply with the <i>Forest Fires Prevention Act</i> .

3.2 ACCESS AND WORKSPACE CONSTRUCTION

To gain access to the Project, the network of existing access will be utilized where practical. In some cases, this will require upgrades to existing trails, or the development of new access where existing access is unavailable or unsuitable for use for construction. Refer to the Project Access Plan for detailed information on planned access locations. The preparation and construction of the running may require topsoil stripping, soil salvage, grading, installation of drainage culverts to maintain surface water flow, and the installation of crossing structures at watercourse crossing location.

The travel lane will typically be 8 m wide within a 20 m wide road ROW, with turn outs and wider running surface at corners. Road widths will be reduced where practical to minimize new disturbance and importing of fill material. Topsoil stripping may occur to the width of the travel lane or and the remaining width will be utilized for topsoil storage and to accommodate required site lines, as warranted. Where practical, access will be placed within the transmission line ROW boundaries, in such a manner to allow for storage of salvaged topsoil within the construction ROW boundaries when required in order to minimize incremental disturbance within the constraints of suitable access design. Disturbed areas and work will be limited to the Project ROW to the extent reasonably possible.

Workspaces are categorized as heavy use (e.g., laydown yard) and light use (e.g., pull sites) workspace. Where light use is planned surface prep will be minimal beyond clearing. For heavy use sites construction may include topsoil stripping, grading, and drainage installation. Where topsoil will be stripped stored in dedicated soil storage areas for spreading at decommissioning and reclamation. Geotextile, rig mats and/or gravel may also be used for levelling and pad development as required. The Project Execution - Construction Plan provides a fulsome description of all construction activities (provided under separate cover).

The following measures are to be implemented during field activities:

Activity/Concern	Mitigation Measures
<i>Access and Workspace Preparation Decision Making Criteria</i>	3.2.1 All access and/or workspace preparation will be reviewed by Valard ROW and Construction Management prior to commencing activities in any given region and will comply with the Project Access Plan and environmental constraints.
	3.2.2 Where reasonably possible, access restrictions will be limited, intermittent and temporary. Access restrictions will occur over a planned period of time



Activity/Concern	Mitigation Measures
	<p>(i.e., weeks or months) while active construction is ongoing in a particular segment of the Project, before construction moves to another segment along the linear corridor and access restrictions are lifted.</p> <p>3.2.3 Where possible, access restrictions will be implemented on areas where Ontario Trail Network trails, non-Ontario Trail Network trails and other trails (resource trails) are located and on trapline licence areas.</p> <p>3.2.4 Coordinate with landowners to maintain access to private lands.</p> <p>3.2.5 Access and workspace construction activities may include the following activities based on the seasonal conditions:</p> <ul style="list-style-type: none"> • Driving in frost on the travel lane and workspaces through snow removal and water application; • Packing snow on the travel lane and workspaces; • Stripping topsoil from the travel lane and/or workspaces; and • Overland techniques: <ul style="list-style-type: none"> ○ Matting; ○ Gravel/imported fill and geotextile; ○ Corduroy, geotextile and gravel/imported fill; and ○ Direct overland travel where ground conditions allow. <p>3.2.6 Criteria to determine access and/or workspace construction options rely on:</p> <ul style="list-style-type: none"> • Geotechnical data; • Ground conditions during construction (i.e., frozen, non-frozen, dry, moist); • Landforms and land use; • Conditions of permits, approvals and/or agreements; and • Schedule of construction activities that will occur in the region. <p>3.2.7 In the event that beaver dams or lodges will be disturbed, provide notification or obtain approval from MNR and DFO as required prior to commencing activities. Engage the registered trapper(s) if applicable.</p> <p>3.2.8 Access roads will be designed to minimize reversing (use of backup beepers) in close proximity to residential areas.</p>
<i>Traffic Management</i>	<p>3.2.9 Traffic safety will be included in the project specific orientation to ensure all project and contractor personnel are aware of the traffic control and safety requirements.</p> <p>3.2.10 Access from the road to the ROW will be controlled with signs, barriers, and using monitors or safety personnel where appropriate.</p> <p>3.2.11 Municipalities will be engaged to secure permits, approvals, or assessments as required regarding traffic management.</p>



Activity/Concern	Mitigation Measures
	<p>3.2.12 Heavy haul and/or road use agreements will be established as required with the Ministry of Transportation (MTO). Permits for entrance (approach development), encroachment (overhead crossings), building and land use (structure placement), and signage will be acquired from the Ministry of Transportation (MTO) for provincial highways. A corresponding Traffic Management Plan will be submitted for these applications.</p> <p>3.2.13 Where applicable, additional traffic management plans will be developed in accordance with Ontario Traffic Manual Book 7 where temporary work zones interface with public roadways.</p> <p>3.2.14 Where use of private roads is required, road use agreements will be negotiated with the owner and include measures to minimize disruption to the owner's use of the road.</p>
<i>Soil Management Scenarios</i>	<p>3.2.15 The ROW Field Manager will discuss the various soil handling scenarios with applicable stakeholders (e.g., landowners, municipal representatives) prior to the commencement of soil handling activities associated with travel lane and workspace construction for the Project, if required.</p>
<i>In-Situ Soil Conservation</i>	<p>3.2.16 Use the following activities to limit the amount of soils stripping required during access and workspace construction, where appropriate and practicable:</p> <ul style="list-style-type: none"> • Drive in frost on the travel lane and workspaces through snow removal and application of water; • Pack snow on the travel lane and workspaces; and • Apply geotextile, rig mats, gravel or mulch on the travel lane and/or the workspaces. <p>3.2.17 To the extent practicable, work under frozen or dry conditions in areas where topsoil stripping is not required.</p>
<i>Snow Management</i>	<p>3.2.18 Remove or pack snow on the travel lane to increase frost penetration into the soil during the winter if excessive snow depths are encountered along the construction ROW. During mid to late winter, pack snow on the travel lane to avoid premature thawing of the upper soils. Ensure all windrowed snow is stored on the allotted construction ROW and/or workspace (i.e., not pushed into trees).</p> <p>3.2.19 Grade snow over the travel lane, if rough, to improve driving conditions. To ensure that no scalping of soil or vegetation occurs while grading, leave approximately two inches of snowpack after grading.</p> <p>3.2.20 Create gaps in snow berms caused by ploughing along the construction ROW or access roads, to facilitate wildlife movement as appropriate. Refer to the Wildlife Management Plan (Section 5.9) for additional information.</p>



Activity/Concern	Mitigation Measures
<i>Topsoil Handling Contingency Measures</i>	<p>3.2.21 Implement the Soil Management Plan (Section 5.4) during topsoil stripping if any of the following are encountered:</p> <ul style="list-style-type: none"> • Little or no topsoil; • Poor colour separation between topsoils and subsoils; • Wetlands; • High winds; or • Requests for alternate topsoil handling methods have been requested by Hydro One based on landowner input.
<i>Topsoil Stripping</i>	<p>Scenario 1: No Topsoil Stripping of Travel Lane and/or Workspace</p> <p>3.2.22 Do not strip topsoil within travel lane and/or light and heavy and use areas.</p> <p>3.2.23 Where additional protection of topsoil is required (e.g., wet areas, droughty soils) to adequately protect soils, use geotextile and gravel, or rig matting as warranted.</p> <p>3.2.24 Monitor the condition of travel lanes and workspaces throughout construction to assess whether topsoil is being subject to degradation (e.g., ensure topsoil is not admixing with subsoils) that will eventually impact soil capability. If topsoil is being degraded through admixing, consider stripping topsoil or utilizing protection measures (e.g., geotextile and gravel, matting).</p> <p>3.2.25 When leaving fields that have a biosecurity concern, refer to the Invasive Species and Biosecurity Management Plan (Section 5.7).</p> <p>Scenario 2: Topsoil Stripping of Travel Lane and/or Workspace</p> <p>3.2.26 Remove soil in lifts and strip available topsoil in one lift.</p> <p>3.2.27 For construction scheduled to occur under frozen conditions, and where topsoil stripping is required, attempt to pre-strip topsoil prior to freeze-up, where conditions permit. Limit topsoil stripping to required areas only (e.g., structure foundations).</p> <p>3.2.28 Rip frozen topsoil to the same depth as the stripping requirements. Do not over rip and avoid over stripping.</p> <p>3.2.29 If working under wet conditions, implement the measures outlined in the Soil Management Plan (refer to Section 5.4).</p> <p>3.2.30 Travel lanes: Strip only the area required for safe vehicle and equipment travel. Stockpile topsoil stripped from the travel lane in a windrow located adjacent to the stripped travel lane/in designated areas away from water features. Use containment measures such as erosion and sediment control as appropriate (refer to Section 5.15).</p>



Activity/Concern	Mitigation Measures
	<p>3.2.31 Heavy use workspaces: Strip topsoil from workspaces used for cranes, tensioning equipment and/or structure foundation areas as warranted. Stockpile topsoil adjacent to each heavy use workspace/in designated areas away from water features for use during future reclamation and clean-up. Use containment measures such as erosion and sediment control as appropriate.</p> <p>3.2.32 Where excavation is required for construction, store excavated subsoil on previously stripped areas or geotextile material adjacent to the excavation. Ensure sufficient space is left between the edge of the storage pile and the excavation to ensure material does not slough back into the excavation.</p> <p>3.2.33 Subsoil/spoil from excavations will be returned to excavations as applicable and/or spread/recontoured in stripped areas. Refer to Final Reclamation (Section 4.2) for additional information.</p> <p>3.2.34 If excess soil is produced (i.e., soil that will be removed from the project), materials will be managed in accordance with Ontario provincial and municipal requirements. Refer to the Soil Management Plan (Section 5.4) for additional information.</p> <p>3.2.35 When leaving fields that have a biosecurity concern, refer to the Invasive Species and Biosecurity Management Plan (Section 5.7).</p>
<i>Topsoil Stockpiles</i>	<p>3.2.36 Cover (e.g., mulch, coconut matting, tackifier, etc. as appropriate), seed, (using certified native mixes confirmed to be free of non-native, noxious, and invasive species), apply water or pack the topsoil stockpiles, exposed slopes and windrows with approved equipment, if the assessment by the QEP indicates that soils are likely to be prone to wind erosion.</p>
<i>Fueling</i>	<p>3.2.37 Refueling of vehicles and/or large mobile equipment will not occur near sensitive receptors (e.g., watercourses, wetlands, wildlife features) to avoid damage resulting from potential spills. Refueling of small equipment in wetlands will be avoided to the extent reasonably possible. If refueling of small equipment (e.g., chainsaws, generators, light plants, etc.) within wetlands is necessary due to logistical constraints, additional mitigation measures will be implemented (e.g., two-man refueling monitoring, spill tray placed under the fuel nozzle, on hand spill kit/pad materials). Under no circumstance will refueling occur where flowing or standing water is present.</p>
<i>Grading</i>	<p>3.2.38 Strip topsoil from areas to be graded and store in a location that will not allow for mixing of topsoil with excavated subsoil and graded material. Avoid over stripping. The area stripped is to correspond to the area to be graded.</p>



Activity/Concern	Mitigation Measures
	<p>3.2.39 Do not mix topsoil and subsoil disturbed during grading with foreign material (e.g., stumps and brush).</p> <p>3.2.40 Reduce grading throughout the construction ROW, especially near watercourses, waterbodies, wetlands, and on agricultural lands. Limit the width of grading to reduce the potential for erosion and subsoil compaction.</p> <p>3.2.41 Limit grading and topsoil stripping on erosion prone or steep slopes, where reasonably practicable.</p> <p>3.2.42 Ensure graded material does not spread off the construction ROW and other designated workspaces, where practicable.</p> <p>3.2.43 Do not complete grading or soil stripping within watercourses, waterbodies, wetlands or other sensitive receptors (e.g., watercourses, wildlife features) without prior approval from regulatory agencies has been obtained.</p> <p>3.2.44 Limit disturbance to natural drainage during grading; install drainage/equalization culverts as necessary. Maintain drainage across the construction ROW during all periods of construction. Where possible, carry out construction activities in a manner that mitigates ponding of water or channelization of surface flow.</p> <p>3.2.45 Do not place windrowed or fill material in watercourses, waterbodies or wetlands during grading.</p> <p>3.2.46 Do not store graded material in low areas.</p>
<i>Dust Control</i>	<p>3.2.47 For dust control requirements refer to the Dust Control/Air Quality Plan (Section 5.1).</p>
<i>Blasting</i>	<p>3.2.48 Ripping is preferred over blasting where rock is encountered.</p> <p>3.2.49 Use of explosives for foundation excavations and access roads will be limited to conditions that do not allow for typical or standard drilling methods.</p> <p>3.2.50 In the event that blasting is required, the Blasting and Communication Management Plan (Section 5.16) and Noise Management Plan (Section 5.2) will be adhered to.</p>
<i>Erosion and Sedimentation Control</i>	<p>3.2.51 Install, monitor and manage appropriate erosion and sedimentation controls as outlined in the Erosion and Sedimentation Control Management Plan (Section 5.15).</p> <p>3.2.52 Inspect erosion and sedimentation controls on a regular basis and repair, if warranted, as soon as reasonably practicable after noticing repairs are necessary.</p>



Activity/Concern	Mitigation Measures
<i>Wildlife</i>	<p>3.2.53 Refer to the Wildlife Management Plan (Section 5.9) for clearing and access development requirements.</p> <p>3.2.54 Refer to the Wildlife Management Plan (Section 5.9) for requirements regarding wildlife observations and interactions.</p>
<i>Working near Watercourses, Waterbodies and Wetlands</i>	<p>3.2.55 Refer to the Fish and Fish Habitat Management Plan (Section 5.8) for requirements regarding working near watercourses, waterbodies and wetlands.</p>
<i>Watercourse, Waterbody and Wetland Crossings</i>	<p>3.2.56 Refer to the Fish and Fish Habitat Management Plan (Section 5.8) for requirements regarding crossing watercourses, waterbodies and wetlands.</p>
<i>Beaver Dam Removal or Dewatering</i>	<p>3.2.57 Reasonable steps will be taken to avoid disturbing beaver lodges or dams. In the event that beaver dams or lodges will be disturbed, provide notification or obtain approval from MNR and DFO as required prior to commencing activities. Engage the registered trapper(s) if applicable.</p> <p>3.2.58 Beaver dam removal will comply with DFO's code of practice: beaver dam breaching and removal.</p>
<i>Aggregate pits and quarries</i>	<p>3.2.59 Existing or approved aggregate pits under the Aggregate Resources Act will be used as appropriate to eliminate development of new pit applications.</p> <p>3.2.60 Areas disturbed by aggregate placement will be recontoured to return to similar pre-construction hydrological conditions. See Section 4.2 Final Reclamation.</p> <p>3.2.61 Blasting at existing aggregate quarries will be carried out to comply with the conditions provided in the license or aggregate permit, if required. See Section 5.16 Blasting and Communication Management Plan.</p>

3.3 MATERIALS HAULING

Materials transportation and storage involves the transfer of materials via trucks to and from material storage and laydown yards used for material staging, storage and structure assembly. These sites are located adjacent to the ROW or substation location. Transport vehicles will use provincial numbered highways and municipal roads to access the Project area. Vehicles will travel along designated off-ROW access roads and the construction ROW travel lane to access workspaces used for structure assembly. Where practical laydown yards will be located outside of agricultural field and within previously disturbed areas.



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The following measures are to be implemented during field activities:

Activity/Concern	Mitigation Measures
<i>Access</i>	<p>3.3.1 Confine material transportation vehicles to existing roads, the allotted travel lane, designated off-ROW access roads, access/egress locations, workspaces, or laydown yards.</p> <p>3.3.2 Follow all traffic safety regulations, seasonal load restrictions, and road bans.</p> <p>3.3.3 Construction-related traffic will adhere to posted speed limits on public roads used to access the construction ROW. Speed limits will be lowered in areas with higher probability of wildlife encounters and proactive radio communication maintained to identify road hazards for other users, as applicable.</p> <p>3.3.4 A pre and post-construction road survey will be completed, as required, to document baseline road conditions and verify impacts to local roads caused by heavy equipment and increased construction traffic during construction activities and be shared with municipal staff prior to construction work commencing.</p> <p>3.3.5 Damage to the local and regional roads as a direct result of the construction activities on the Project will be repaired.</p> <p>3.3.6 A Traffic Control Plan will be developed and shared with local municipalities, as necessary.</p> <p>3.3.7 If temporary road closures are required during material transportation or other construction activities, the construction contractor will coordinate with the appropriate road authority to ensure that proper notice is provided and that required signage and traffic controls are implemented.</p> <p>3.3.8 Municipal roads will be cleaned/scraped to remove mud on an as needed basis.</p> <p>3.3.9 Prohibit project personnel from the recreational use of all-terrain vehicles or snowmobiles on worksites to limit potential impacts to flora or fauna and spread of invasive species.</p>
<i>Dust Control</i>	<p>3.3.10 For dust control requirements refer to the Dust Control/Air Quality Plan (Section 5.2).</p>
<i>Wildlife</i>	<p>3.3.11 Refer to the Wildlife Management Plan (Section 5.9) for clearing and access development requirements.</p> <p>3.3.12 Refer to the Wildlife Management Plan (Section 5.9) for requirements regarding wildlife observations and interactions.</p>



Activity/Concern	Mitigation Measures
<i>Livestock loss or injury</i>	<p>3.3.13 Owner/tenant farmer will be informed in advance of upcoming work activities which may disturb or pose a risk to livestock, and consulted with respect to potential mitigation measures, as necessary.</p> <p>3.3.14 Field crews will be informed about livestock in the vicinity of work areas to confirm they are aware of the need to secure gates, are cognizant of noise sensitivity controls, and to ensure clean-up of construction material and debris at the end of each day to minimize potential livestock ingestion.</p> <p>3.3.15 Access control gates will be used as required.</p>
<i>Topsoil Conservation</i>	<p>3.3.16 Soil and weather conditions will be monitored by Valard QEPs and mitigation measures and contingency plans implemented as required, as per the Soil Management Plan (Section 5.4).</p>
<i>Potential transfer of soils and/or invasive species between agricultural fields.</i>	<p>3.3.17 When leaving fields that have a biosecurity concern, refer to the Invasive Species and Biosecurity Management Plan (Section 5.7).</p> <p>3.3.18 Equipment and vehicle inspection and the appropriate level of cleaning will be incorporated during construction, as per the Invasive Species and Biosecurity Management Plan (Section 5.7) to minimize the potential for inadvertent transport of trace soils between agricultural fields.</p>

3.4 TRANSMISSION STRUCTURE FOUNDATION CONSTRUCTION

The selection of an appropriate foundation will vary by selected structure type and the findings of geotechnical investigations. The anticipated foundation types for the Project include driven pile, helical pile, concrete caissons, micropile, and rock foundations. Installation may involve drilling, pile driving or excavation.

The following measures are to be implemented during field activities:

Activity/Concern	Mitigation Measures
<i>Schedule</i>	<p>3.4.1 Where practicable, schedule work activities in wet areas during dry or frozen conditions.</p>
<i>Wildlife</i>	<p>3.4.2 Refer to the Wildlife Management Plan (Section 5.9) for clearing and access development requirements.</p> <p>3.4.3 Refer to the Wildlife Management Plan (Section 5.9) for requirements regarding wildlife observations and interactions.</p>
<i>Topsoil Stripping</i>	<p>3.4.4 Augered tower footing or screw-pile foundations will be used where feasible to minimize soil excavations.</p>



Activity/Concern	Mitigation Measures
	<p>3.4.5 The need to strip or excavate soils will be minimized to the extent practical and where required, topsoils and subsoils will be separately stockpiled to minimize mixing of soil horizons.</p> <p>3.4.6 Depth of soil being removed will be carefully monitored during stripping activities.</p> <p>3.4.7 Stripping of soils will not be completed during excessively wet conditions.</p> <p>3.4.8 Vegetation, stone piles, fencing and deleterious materials will be removed prior to stripping.</p> <p>3.4.9 For backfilling operations, topsoil and subsoil will be replaced in reverse order of excavation to minimize mixing.</p> <p>3.4.10 Where practicable, cover exposed or excavated soils for areas where erosion is a concern.</p> <p>3.4.11 Implement the contingency measures outlined in the Soil Management Plan (Section 5.4) and contingency measures, as required, during topsoil stripping if one of the following are encountered:</p> <ul style="list-style-type: none"> • Little or no topsoil; • Uneven boundary between topsoils and subsoils; • Poor colour separation between topsoils and subsoils; • Stony soils; • Wet conditions; • Soil erosion; or • Requests for alternate topsoil handling methods that the Owner has received from a landowner.
<i>Dust Control</i>	3.4.12 For dust control requirements refer to the Dust Control/Air Quality Plan (Section 5.2).
<i>Bedrock</i>	3.4.13 Where feasible, ripping or rock hammer will be used as opposed to blasting where rock is encountered.
<i>Fencing</i>	3.4.14 Fence off open excavations or auger holes left unsupervised to protect wildlife and livestock from entering the work area.
<i>Dewatering</i>	<p>3.4.15 All short-term water taking and dewatering from surface water and/or groundwater sources for construction purposes will be conducted in accordance with applicable Ontario regulations (refer to the Project Permitting and Approvals Plan).</p> <p>3.4.16 Pump sediment-laden water onto stable, well vegetated areas, sheeting, rocks, or other sediment filtering device. Completed dewatering in a</p>



Activity/Concern	Mitigation Measures
	<p>manner than does not cause erosion or allow sediment to re-enter a water body.</p> <p>3.4.17 Place pumps in secondary containment, on flat surface away from a waterbody to prevent spill and follow spill prevention measures outlined in the Spill and Emergency Preparedness and Response Plan (Section 5.14).</p>
<i>Work Site Isolation</i>	<p>3.4.18 If, due to logistical constraints, construction in classified wetlands may occur outside frozen conditions. Since existing foundations are always located on higher grounds within a wetland, the following work site isolation mitigations will be implemented:</p> <ul style="list-style-type: none"> • If the soil is saturated, rigmats will be installed to access the work site under dry conditions and prevent rutting; • The work area will be isolated with layers of sandbags; • Water within the work area will be pumped out and discharged into the wetland. The end-of-pipe will be equipped with a fine screen to prevent sediments to be pumped out; • If required, pumping may occur during the entire construction activity; • Construction outside frozen conditions will not occur during inclement weather.
<i>Concrete Management</i>	<p>3.4.19 Obtain Environmental Compliance Approval (ECA) if concrete batch plant(s) are on the Project and comply with all subsequent conditions.</p> <p>3.4.20 Isolate concrete works to prevent direct flow into waterbodies and contamination. Where possible, all works will be conducted outside of the buffer of a watercourse or waterbody.</p> <p>3.4.21 Crushed concrete will not be used as fill material for foundation excavations.</p> <p>3.4.22 Above ground concrete forms will be inspected for tight seals prior to pouring concrete.</p> <p>3.4.23 Designated concrete and equipment wash-out site(s) will be established, located on level ground and setback from any watercourse for cleaning concrete trucks and equipment and monitored to ensure runoff does not enter watercourses.</p> <p>3.4.24 Uncured concrete, cement, mortar, grout or other lime-containing construction materials will not be deposited into or near a water body. A 120 m setback will be applied during this activity near waterbodies. Where this is not practicable, Indigenous monitors will be notified.</p>



Activity/Concern	Mitigation Measures
	<p>3.4.25 Remove excess concrete from the Project Site and dispose of in accordance with construction waste disposal requirements in the Waste Management and Disposal Plan, Section 5.13.</p> <p>3.4.26 Refer to the Dust control/air quality plan (Section 5.2) for Dust control practices.</p>
<i>Welding and Grinding</i>	<p>3.4.27 Implement the Fire Prevention Plan (Section 5.18) when required during the fire season, normally April 1 to October 31.</p> <p>3.4.28 Ensure that each vehicle carries the minimum fire suppression equipment required for their on-site equipment and personnel and that all required firefighting equipment is serviceable, easily accessible and available at the appropriate location for immediate use.</p> <p>3.4.29 If the fire hazard is high, implement modifications and measures as outlined in the Fire Prevention Plan (Section 5.18) as required based on fuel group and hazard levels.</p>
<i>Noise</i>	<p>3.4.30 Adhere to the Noise Management Plan (Section 5.3).</p>
<i>Backfilling</i>	<p>3.4.31 Use excavated subsoil to backfill the excavation, where practicable. Where imported backfill is required refer to the Soil Management Plan for project requirements (Section 5.4).</p> <p>3.4.32 To the extent practicable, attempt to schedule delivery of imported fill material to be installed directly into the excavation upon arrival at the structure site rather than being temporarily stored on the ROW prior to being backfilled.</p> <p>3.4.33 For backfilling operations, topsoil and subsoil will be replaced in reverse order of excavation to minimize mixing.</p> <p>3.4.34 Backfill to the surface and mound to allow for drainage away from the transmission structure and settlement of soils.</p> <p>3.4.35 If excess soil is produced (i.e., soil that will be removed from the project), materials will be managed in accordance with Ontario provincial and municipal requirements. Refer to the Soil Handling Management Plan (Section 5.4) for additional information. Avoid scalping sod and/or topsoil during backfilling. Use suitable equipment to reduce the potential for scalping.</p> <p>3.4.36 Evenly replace topsoil upon completion of backfilling.</p> <p>3.4.37 Store stockpiles of backfill material on geotextile fabric, not directly onto topsoil, to prevent admixing with topsoil, where reasonably possible.</p>



3.5 STRUCTURE ASSEMBLY AND ERECTION

Lattice structures may be assembled at the structure location on the ROW or at a designated fly yard in the region. Fly yards may be utilized for structure assembly where ground conditions at the site are not suitable or where access constraints preclude in situ assembly. Whether assembly occurs at the structure location or the fly yard, the methodology and procedures are largely the same, with the exception that self-supporting towers may be assembled in smaller segments in a fly yard due to their weight to ensure they are within the lifting capacity of the selected helicopter.

For both guyed towers and self-supporting towers, zoom-booms, backhoes and or cranes are utilized to maneuver pieces into place horizontally for final assembly. For towers assembled on the ROW, one or more appropriately sized cranes is used to erect and install towers onto their foundations and install guy anchors as applicable. For towers assembled at fly yards, a tower or tower segment is be picked from the fly yard and flown to the structure site. At the site a ground crew in communication with the pilot guides the tower or tower segment into place for installation.

The following measures are to be implemented during field activities:

Activity/Concern	Mitigation Measures
<i>Wildlife</i>	<p>3.5.1 Refer to the Wildlife Management Plan (Section 5.9) for clearing and access development requirements.</p> <p>3.5.2 Refer to the Wildlife Management Plan (Section 5.9) for requirements regarding wildlife observations and interactions.</p>
<i>Surface Conditions</i>	<p>3.5.3 Ensure ground surface is sufficiently dry or frozen to allow work to continue without causing rutting, compaction, soil pulverization or any other detrimental impact to soils, where practicable.</p> <p>3.5.4 Where reasonably possible, monitor ground surface to verify that it is sufficiently dry or frozen to ensure that work can continue without causing rutting.</p> <p>3.5.5 Implement additional mitigations outlined in the Soil Management Plan, Section 5.4.</p>
<i>Access</i>	<p>3.5.6 Confine structure assembly, erection and setting work to the designated workspace.</p>
<i>Use of Cranes and Boom Trucks</i>	<p>3.5.7 The use of cranes and boom trucks will be restricted to the designated heavy use workspaces within the construction ROW (structure pads).</p> <p>3.5.8 Rig mats, geotextiles or other similar materials may be used under crane stabilizers to limit soil disturbance within the crane footprint where required.</p>



3.6 CONDUCTOR STRINGING

This phase of construction includes dressing the tower (i.e., the installation of insulators and stringing blocks), stringing, joining and tensioning of the conductor phases. Installation of insulators and stringing block can be achieved via ground crew using person-lifts and cranes or via helicopter where ground access is constrained. Once the traveller assembly is in place a sock line strung via helicopter. This line is then used to pull a hard line between tension and pull sites until eventually all phases of conductor are strung.

Temporary tension and pull sites workspaces are required to support stringing. For tangent structures, the tension and pull sites will be located within the construction ROW. At angle and corner structures, temporary workspaces located off the construction ROW, pending the angle of deflection.

In some cases, conductor pulling may need to be completed via helicopter where constrained by safety or access.

The following measures are to be implemented during field activities:

Activity/Concern	Mitigation Measures
<i>Surface Conditions</i>	<p>3.6.1 Ensure ground surface is sufficiently dry or frozen so that work can continue without causing excessive rutting, compaction, soil pulverization or other detrimental impact to soils and/or vegetation, where practicable.</p> <p>3.6.2 Where reasonably possible, monitor the condition of the workspaces during conductor stringing to determine the ground conditions remain adequate for continued work and determine the requirement for additional mitigations.</p> <p>3.6.3 If risk of significant admixing of topsoil with mineral soils is high, stripping may be conducted and/or geotextiles, rig matting, gravel or other mitigation may be applied. Alternatively, work may be delayed until conditions improve. Refer to Section 5.4.</p>
<i>Tension and Pull Sites</i>	<p>3.6.4 Levelling and grading of tension and pull sites will be minimized.</p>
<i>Anchor Pits</i>	<p>3.6.5 Anchor pits (slug sites) will be required to anchor tensioning equipment. Strip topsoil from areas where anchor pits will be excavated and store the topsoil separately from material removed to excavate the pit.</p> <p>3.6.6 Backfill excavated material into the anchor pit following stringing. Level backfilled material to grade and compact backfilled material to the equivalent of adjacent lands off-ROW. Evenly replace topsoil upon completion of backfilling.</p>



Activity/Concern	Mitigation Measures
<i>Wildlife, Sensitive Terrain/Wildlife Habitat</i>	<p>3.6.7 Refer to the Wildlife Management Plan (Section 5.9) for clearing and access development requirements.</p> <p>3.6.8 Refer to the Wildlife Management Plan (Section 5.9) for requirements regarding wildlife observations and interactions.</p> <p>3.6.9 Effort will be made to place tension or pull sites accordingly to avoid environmentally sensitive features.</p> <p>3.6.10 Maintain a minimum elevation of 150 m on transit flights when operating helicopters within SAR habitat during sensitive timing windows, as required.</p> <p>3.6.11 Maintain noise abatement equipment on machinery and ensure it is in good working order, where reasonably possible.</p> <p>3.6.12 Use task lighting (such as downturned shade fixtures) to direct light on those areas where light is required for safe operations of the proposed facilities.</p> <p>3.6.13 Lighting associated with temporary work areas will be limited to the extent necessary and illuminated only when required.</p> <p>3.6.14 LED perimeter lighting at camps will be used to focus light downward.</p>
<i>Wetlands and Riparian Areas</i>	<p>3.6.15 In accordance with regulator requirements/direction, bird diverters will be installed on shield wires in and around select wetlands, waterbodies and riparian areas where significant waterfowl breeding has been identified to deter bird collisions with the infrastructure. Candidate sites will be established prior to construction.</p> <p>3.6.16 Markers will be deployed per manufactures specifications.</p>
<i>Implosive Conductor Splicing</i>	<p>3.6.17 Adhere to the Blasting and Communication Management Plan (Section 5.16) and the Noise Management Plan (Section 5.3) when engineered implosive charges are used to splice conductor joints.</p>
<i>Stringing over Navigable Watercourses and Waterbodies</i>	<p>3.6.18 It is anticipated that regulatory approval under the <i>Navigation Protection Act</i> may be required at scheduled navigable waters crossed by the Project and notice, or approval may be required at non-scheduled navigable waters. Work will follow all approval conditions which may include:</p> <ul style="list-style-type: none"> • Signage upstream and downstream of the construction site during stringing; • Continued access for water traffic; • Public notification requirements; • Line demarcation; and • Painting and lighting requirements.



4 POST-CONSTRUCTION

Post-Construction worksite clean-up and reclamation can begin once construction is complete and includes the following tasks, as appropriate:

- Temporary structure (e.g., site office trailer, camp dorms, etc.) dismantling and removal.
- Clean-up and removal of all construction materials (including temporary culverts, geotextile materials, and gravel), equipment, etc.
- Workspace and travel lane restoration, where not required for future access and as directed by MNR or affected Indigenous communities, including tilling or ripping compacted soil, re-contouring areas where necessary to restore micro drainage patterns, and applying erosion control measures (e.g., mulching, check dams, straw crimping) where required. Revegetation may employ natural regeneration, seeding and/or tree planting as required by permits or private land agreements.
- Restoration of fences and other small infrastructure within the construction ROW and workspaces.
- Post-construction monitoring of the effectiveness of erosion control measures and re-vegetation process per contract requirements. Installation or removal of temporary erosion control measures and re-vegetating as warranted.

4.1 ROUGH CLEAN-UP

Rough clean-up and interim reclamation activities will take place throughout the construction of the Project.

These activities will include, but not be limited to, removing refuse, grading disturbed areas, contouring disturbed slopes to a stable profile, re-establishing natural drainage patterns, and re-establishment of vegetation.

The following measures are to be implemented during field activities:

Activity/Concern	Mitigation Measures
<i>Schedule</i>	<p>4.1.1 Maintain good housekeeping throughout the Construction Phase and commence rough clean-up as soon as reasonably possible.</p> <p>4.1.2 Complete clean-up and interim reclamation of the Project footprint under non-frozen conditions as soon as possible after decommissioning, when Project schedule allows.</p> <p>4.1.3 Complete final reclamation where all season construction was completed outside of frozen conditions as soon as weather and soil conditions permit. Commence reclamation efforts within and near wetlands as soon as reasonably possible to reduce the potential impact and to take advantage of access.</p> <p>4.1.4 Implement the mitigations, outlined in the Soil Management Plan (Section 5.4), including deferring work as required.</p> <p>4.1.5 Coordinate clean-up and reclamation activities to reduce interference with agricultural operations to the extent practical given the season.</p>



Activity/Concern	Mitigation Measures
	<p>4.1.6 Time re-vegetation to take advantage of favourable moisture and temperature conditions.</p> <p>4.1.7 Implement progressive reclamation and revegetation of disturbed areas no longer required (including ROW trails and waterbody crossing locations). Progressive reclamation includes topsoil replacement and seeding of erosion prone areas in accordance with MNR or other applicable regulatory agencies as required.</p>
<i>Wildlife</i>	<p>4.1.8 For wildlife observations, interactions and Project requirements refer to the Wildlife Management Plan (Section 5.9).</p> <p>4.1.9 Deactivation and reclamation of temporary access roads and trails as soon as reasonably possible will be considered to address concerns regarding increased recreational hunting access and impacts to moose populations.</p>
<i>Survey and Flagging</i>	<p>4.1.10 Flagging, signage and other markings will be removed upon construction completion.</p>
<i>Waste and Debris</i>	<p>4.1.11 Implement the measures in the Waste Management and Disposal Plan (Section 5.13).</p> <p>4.1.12 Remove remaining garbage and debris from the Project Site.</p> <p>4.1.13 Remove all soil dried in the slurry drying pad and remove slurry drying pad, if required.</p> <p>4.1.14 All waste, geotextile, silt fencing, filter fabric, wood debris, and other Project waste will be removed from Project Site and will be properly disposed.</p> <p>4.1.15 Removed culverts and other structural or excess materials will be properly disposed (e.g., recycled, repurposed or disposed of in a landfill).</p> <p>4.1.16 Materials that are to be reused elsewhere on the construction ROW will be suitably cleaned before transferring and using at a different location per the Invasive Species and Biosecurity Management Plan (Section 5.7).</p>

4.2 FINAL RECLAMATION

A detailed Project Reclamation Plan and Revegetation Plan (provided under separate cover) has been developed, based on reclamation requirements established through the regulatory process, including input from stakeholders, regulators and the Owner's requirements. As a component of the Reclamation Plan, a post construction assessment process will be established, to enable construction ROW and workspace turnover following completion of construction. The following general reclamation measures, at a minimum, will apply:



Activity/Concern	Mitigation Measures
<i>Schedule</i>	<p>4.2.1 Complete final reclamation outside of frozen conditions as soon as weather and soil conditions permit. Commence reclamation efforts within and near wetlands as soon as reasonably possible to reduce the potential impact and to take advantage of access.</p> <p>4.2.2 Implement the mitigations, outlined in the Soil Management Plan (Section 5.4), including deferring work as required.</p> <p>4.2.3 Time re-vegetation to take advantage of favourable moisture and temperature conditions.</p>
<i>Wildlife</i>	<p>4.2.4 For wildlife observations, interactions and Project requirements refer to the Wildlife Management Plan (Section 5.9).</p> <p>4.2.5 Deactivation and reclamation of temporary access roads and trails as soon as reasonably possible will be considered to address concerns regarding increased recreational hunting access and impacts to moose populations.</p>
<i>Re-grading</i>	<p>4.2.6 Re-grade areas with rutting and erosion gullies.</p>
<i>Contour restoration</i>	<p>4.2.7 Recontour disturbed areas, following construction, to prevent erosion and restore drainage patterns to the approximate preconstruction profile.</p>
<i>Subsoil Compaction</i>	<p>4.2.8 Restoration measures, including cultivation or otherwise, to alleviate soil compaction on areas affected by construction, will be undertaken in consultation with the landowner, as appropriate, following the completion of construction and removal of temporary construction access where soil compaction issues are present.</p>
<i>Subsoil /Topsoil replacement</i>	<p>4.2.9 Spread surplus excavated subsoil as evenly as possible throughout stripped areas of Project site.</p> <p>4.2.10 Replace topsoil evenly over all areas that have been stripped. Postpone topsoil replacement during wet conditions or high winds to prevent damage to soil structure or erosion of topsoil.</p> <p>4.2.11 If soil productivity is suspected to have been significantly impacted by debris burning, localized subsoil and remaining on-site debris may be spread at burn locations.</p> <p>4.2.12 Stored topsoil and organic material will be spread across the width of temporary access roads.</p> <p>4.2.13 Implement the mitigations in the Invasive Species and Biosecurity Management Plan (Section 5.7).</p>



Activity/Concern	Mitigation Measures
<i>Seeding and Revegetation</i>	<p>4.2.14 Seeding, planting and natural revegetation will be used as appropriate to re-establish vegetation communities during reclamation activities. Seeding and planting may be required on erosion-prone areas (e.g., steep slopes), or to meet specific objectives based on engagement with landowners, regulatory authorizations, or affected Indigenous communities.</p> <p>4.2.15 Wetland work areas will be restored to pre-construction drainage patterns and seeded/planted, as required, with native vegetation (wetland seed mix and shrub stock) appropriate for the site conditions and surrounding vegetation community, based on MNR approved seed mixes).</p> <p>4.2.16 Tree planting in Provincial parks and conservation reserves will occur on off-ROW roads that required new clearing and construction during construction and on Helicopter pads located within the campus lake conservation reserves.</p> <p>4.2.17 In coordination with the SFL holder(s), large temporary openings (i.e. construction camps, laydowns, fly yards) will be planted to promote immediate reforestation.</p>
<i>Temporary Watercourse, Waterbody and Wetland Crossings</i>	<p>4.2.18 Refer to the Fish and Fish Habitat Management Plan (Section 5.8) for removal of temporary watercourse, waterbody and wetland crossings.</p>
<i>Temporary workspaces/laydowns</i>	<p>4.2.19 To the extent reasonably possible, temporary access roads and trails, helicopter pads, construction camps and laydown areas will be reclaimed and restored to equivalent pre-construction land capability or to an alternate condition agreeable to the landholder. Where appropriate, seeding or planting will occur to improve reclamation success.</p> <p>4.2.20 Monitor and manage reclamation activities to address potential visual effects, including soil erosion and revegetation, where reasonable.</p> <p>4.2.21 Temporary washout sites will be capped with local backfill and re-graded or rehabilitated according to conditions in permits/approvals.</p> <p>4.2.22 Existing roads and trails used within provincial parks and conservation reserves will be reclaimed to their pre-existing condition to the extent practical.</p>
<i>Fences</i>	<p>4.2.23 Repair fences and replace temporary gates with permanent fences of equal or better quality, unless Owner has received an alternative request from the landowner and/or occupant.</p>



Activity/Concern	Mitigation Measures
	4.2.24 Ground fences as required by Owner/Engineering to reduce/eliminate induced current and risk of shock, where required.

5 CONTINGENCY AND MANAGEMENT PLANS

5.1 GREENHOUSE GAS REDUCTION PLAN

Activity/Concern	Mitigation Measures
<i>Greenhouse Gas Emissions</i>	<p>5.1.1 Include Greenhouse Gas emission awareness in Project Orientation.</p> <p>5.1.2 Maintain all vehicles and equipment in good working order, with functioning exhaust systems.</p> <p>5.1.3 Turn off vehicles and equipment when not in use and minimize idling unless weather and/or safety conditions dictate the need for engines to remain running.</p> <p>5.1.4 Use multi-passenger vehicles to transport personnel, where practical. Personal vehicles will be minimized to the extent practicable.</p> <p>5.1.5 Use appropriately sized equipment, generators and pumps for the work application.</p> <p>5.1.6 Carpooling will be utilized for workers to and from worksites/camps/hotels/airports as reasonably possible.</p> <p>5.1.7 Reduce vegetation clearing to the extent required to establish worksites and maintain ROW line security.</p> <p>5.1.8 Ensure proper waste management strategies, including recycling as reasonably possible. Refer to the Waste Management and Disposal Plan (Section 5.13) for additional information regarding recycling.</p> <p>5.1.9 Reduce burning of wood waste by means of mulching wood waste to the extent practicable.</p> <p>5.1.10 When using incinerators ensure they are equipped with scrubbers and adhere to the applicable guidelines and regulations.</p> <p>5.1.11 Construction camps will be equipped with high efficiency furnaces.</p> <p>5.1.12 Where reasonably possible, connect the power supply to construction camps and site office trailers to grid power reducing the use of generators.</p>



5.2 DUST CONTROL/AIR QUALITY PLAN

The following Dust Control/Air Quality Plan outlines management strategies and mitigation measures to be undertaken to minimize potential negative effects to air quality as a result of fugitive dust, particulate matter or greenhouse gas emissions. This plan is based on industry BMPs, and past project experience. The final plan will incorporate any additional Project or regulatory requirements and will be developed by Valard in consultation with the Owner prior to construction. Dust control measures (including road cleaning) will be documented through regular environmental monitoring and provided in monthly reporting.

Dust control and air quality management strategies and mitigation to be implemented include:

Activity/Concern	Mitigation Measures
<i>Fugitive Dust and Particulate Matter</i>	<p>5.2.1 Maintain clean existing access (i.e., clean/scrape to remove mud on an as needed basis) throughout construction.</p> <p>5.2.2 Minimize vehicular traffic to exposed soils and stabilize high traffic areas with suitable cover material.</p> <p>5.2.3 Obey all speed limits to limit fugitive dust.</p> <p>5.2.4 Implement effective dust suppression techniques, such as on-site watering, as necessary to minimize fugitive dust at worksites and access roads as required. Road watering is the preferred method, and the use of chemical suppressants will be avoided on project roads not under the jurisdiction of municipalities and/or road authorities.</p> <p>5.2.5 Avoid excavation and other construction activities with potential to release airborne particulates during windy and prolonged dry periods, to the extent practicable.</p> <p>5.2.6 If excavation or other construction activities with potential to release airborne particulates must occur during windy conditions, dust controls will be implemented. Dust control measures that may be implemented include packing soils and/or installing soil berms, watering, installing barriers such as mulch or erosion control blankets. These options are listed in order of preference and intensity with increasing levels of intensiveness applied as determined necessary by a Qualified Professional.</p> <p>5.2.7 Cover or otherwise contain loose construction materials with potential to release airborne particulates during transport, installation or removal.</p> <p>5.2.8 Restore disturbed areas and erodible soils as soon as possible to minimize duration of soil exposure.</p> <p>5.2.9 Ensure slash pile burning is completed in accordance with all permits and approvals (e.g., municipal by-laws, as appropriate).</p> <p>5.2.10 If construction dust directly affects adjacent residences, mitigation may be implemented (e.g., watering down roads or calcium application to roads as per Municipal requirements).</p>



Activity/Concern	Mitigation Measures
	5.2.11 Calcium chloride may be used where there is increased project traffic interface with public access roads. If required, Application of calcium chloride will be completed in consultation with road authorities and will not occur within 120 m of a waterbody or wetland.

5.3 NOISE MANAGEMENT PLAN

The following Noise Management Plan outlines mitigation measures, based on industry BMPs and past project experience to prevent or minimize potential negative effects, including the potential for activities to be inconvenient or a nuisance to local residents, business, and operations as a result of project noise or vibration during construction.

Protocols to inform the Owner's Representative of blasting schedules or other potential noise impacts are outlined in the Blasting and Communication Management Plan (Section 5.16).

Mitigation measures to be implemented include:

Activity/Concern	Mitigation Measures
<i>Notification/ Pre-construction</i>	<p>5.3.1 Provide adequate notice to the Owner's representative prior to the start of construction to support notification to affected Indigenous communities, landowners, and other stakeholders along the Project corridor as required under Project permits, approvals and agreements. Provide additional notifications as appropriate for highly disruptive activities (e.g., implodes).</p> <p>5.3.2 Implement the following Vibration Workplan for vibration-sensitive sites:</p> <p>Site Assessment:</p> <ul style="list-style-type: none"> Assess the construction site to identify potential vibration-sensitive areas. Consider nearby buildings, wells, bridges, and any other structures that may be affected. <p>Pre-Construction Survey:</p> <ul style="list-style-type: none"> Where sensitive features are identified, perform a baseline survey of existing structures and equipment to establish their current condition. Document any pre-existing cracks, settlement, or damage. <p>Construction Techniques:</p> <ul style="list-style-type: none"> Use low-impact construction techniques/equipment whenever reasonably possible. Use vibratory equipment (pile drivers, compactors) judiciously and follow manufacturer guidelines.



Activity/Concern	Mitigation Measures
	<ul style="list-style-type: none"> Consider alternative methods (e.g., helical piles) to reduce ground vibrations. Construction blasting will be carried out in compliance with the OPSS 120. Avoid operating equipment expected to be a significant source of vibration simultaneously in the same area. <p>Work Scheduling:</p> <ul style="list-style-type: none"> Plan construction activities to minimize peak vibration periods (e.g., avoid nighttime work near residential areas). Coordinate with local authorities and residents to ensure minimal disruption as appropriate. <p>Buffer Zones:</p> <ul style="list-style-type: none"> Establish buffer zones around sensitive structures. Limit heavy machinery operations within these zones. <p>Post-Construction Inspection:</p> <ul style="list-style-type: none"> After construction, conduct a post-inspection survey to assess any changes in nearby structures. Address any damage promptly. <p>Community Communication:</p> <ul style="list-style-type: none"> Inform local residents about the construction schedule and potential vibrations. Provide contact information for addressing concerns.
<p><i>General Construction, Blasting and Implosive Conductor Splicing</i></p>	<p>5.3.3 Plan access to minimize reversing and the use of backup beepers, where practical.</p> <p>5.3.4 Complete construction in accordance with municipal noise control by-laws, and provincial requirements as applicable, e.g., Environmental Noise Guideline Publication NPC-300.</p> <p>5.3.5 In the event construction is required to occur beyond the daytime period (i.e., 07:00 to 18:00), applicable mitigation measures will be implemented in accordance with required permits or bylaw exemptions.</p> <p>5.3.6 Noise emission permits will be acquired as necessary.</p> <p>5.3.7 Obtain noise control by-law exemptions as required.</p>



Activity/Concern	Mitigation Measures
	<p>5.3.8 Equipment and machinery used on site will be maintained in good working condition through regular maintenance and inspection and operated such that impulsive noise is minimized where possible.</p> <p>5.3.9 Reduce idling and turn-off construction equipment when not in use, as practical considering weather and/or safety conditions.</p> <p>5.3.10 Manage vibration levels by operating equipment with significant vibration separately, where possible.</p> <p>5.3.11 If blasting or implosive devices are to be used, refer to the Blasting Communication Management Plan (Section 5.16) for details pertaining to storage, security, notification and detonation requirements during construction.</p>
<i>Noise Complaint Response Protocol</i>	<p>5.3.12 After receipt of a noise complaint, review nature of complaint, contributing circumstances, regulatory requirements and possible mitigation.</p> <p>5.3.13 Working with the Owner's representative, Valard Community Relations representative will acknowledge the receipt of the report within two business days.</p> <p>5.3.14 Provide a formal response including anticipated frequency and duration of noise, targeted completion date and any mitigations required.</p>

5.4 SOIL MANAGEMENT PLAN

The following Soil Management Plan outlines additional soil contingency measures for minimizing potential project effects related to soil handling. This plan was developed based on BMPs and past project experience. The final plan, which will incorporate any additional Project or regulatory requirements and will be developed by Valard in consultation with the Owner prior to construction.

For the purposes of this plan, soils are considered to be excessively wet when the planned activity could cause significant damage to soils either due to rutting by traffic through the topsoil; soil structure damage during soil handling; or compaction and associated pulverization of topsoil structure damage due to heavy traffic.

Management and mitigation measures to be implemented during field activities are as follows:

Activity/Concern	Mitigation Measures
<i>Requests for alternate soil handling measure requested by landowner and/or occupant</i>	<p>5.4.1 Discuss benefits of proposed soil handling scenario with landowner and/or occupant and how mitigations will minimize impacts. If a resolution cannot be met, discuss soil handling with the Owner's representative and applicable regulator as required.</p>



Activity/Concern	Mitigation Measures
<i>Soil structure damage or degradation (e.g., rutting, compaction, pulverization, etc.)</i>	<p>5.4.2 Where reasonably possible, schedule work activities in wet areas during frozen or dry conditions.</p> <p>5.4.3 Ensure ground surface is sufficiently dry or frozen so that work can continue without causing excessive rutting, compaction, or soil pulverization or any other detrimental impact to soils and/or vegetation.</p> <p>5.4.4 Valard ROW and Environment will monitor the condition of the workspaces during construction to determine whether topsoil is subject to degradation that will eventually impact soil capability. If risk of significant admixing of topsoil with mineral soil is high, stripping will be conducted and/or geotextiles, rig matting, gravel or other mitigation may be applied. Alternatively, work may be delayed until conditions improve.</p> <p>5.4.5 Where practicable, temporary access roads and work pads may be built using mats, which can be easily removed when construction is complete to allow for re-cultivation of the area.</p> <p>5.4.6 Restoration measures, such as working with the farmer to cultivate or otherwise alleviate soil compaction on areas affected by construction, may be undertaken following the completion of construction and removal of temporary construction access as necessary.</p>
<i>Topsoil Subsoil Mixing (Admixing)</i>	<p>5.4.7 Depth of soil being removed will be carefully monitored during stripping activities.</p> <p>5.4.8 Augered tower footings or screw-pile foundations will be used where feasible to minimize soil excavations.</p> <p>5.4.9 Where soil stripping is required, topsoils and subsoils will be stripped and stockpiled separately. Soils will be stripped under favourable conditions (not saturated).</p> <p>5.4.10 Vegetation, stone piles, fencing and deleterious materials will be removed prior to stripping.</p>
<i>Little or no Topsoil, Poor Color Separation Between Topsoil and Subsoils</i>	<p>5.4.11 Where topsoil is not distinguishable by colour, Valard ROW and Environment will provide direction on salvage depth based on structure and texture.</p>
<i>Potential Cross-Contamination of Soils Between Agricultural Lands</i>	<p>5.4.12 Refer to Invasive Species and Biosecurity Management Plan for further details (Section 5.7).</p>



Activity/Concern	Mitigation Measures
<i>High Winds</i>	<p>5.4.13 Avoid topsoil replacement during wet weather or high winds to prevent damaging soil structure and erosion of topsoil, where practicable.</p> <p>5.4.14 Cover exposed or excavated soils in areas of concern for erosion, where practicable.</p>
<i>Wet/Thawed Soils</i>	<p>5.4.15 If excessive rain, wet weather or flood-like conditions occur or are anticipated when the planned activity could cause significant damage to soils (e.g., rutting by traffic through the topsoil, soil structure damage during soil handling, or compaction and associated pulverization of topsoil structure damage due to heavy traffic), notify the Construction Manager that contingency measures may be required as a result.</p> <p>5.4.16 Contingency measures will be implemented, if warranted, once one of the following indicators occurs:</p> <ul style="list-style-type: none"> • Excessive rutting of topsoil to the extent that admixing is occurring; • Excessive wheel slip; • Excessive build-up of mud on tires and cleats; and • Excessive tracking of mud as vehicles leaves the work or travel area. <p>5.4.17 If warranted, contingency measures may include one or more of the following:</p> <ul style="list-style-type: none"> • Re-schedule work or reduce/detour traffic in areas where soils are considered to be excessively wet (as per indicators listed above), and/or prone to rutting; • Restrict construction traffic, where feasible, to equipment with low-ground pressure tires or wide pad tracks. • During extreme wet conditions, work only in non-problem/low risk areas, such as well-drained soil or well-sodded lands, until conditions improve; • Limit vehicle access through soft/wet areas to periods when frozen conditions occur (i.e., early morning/evening); have crews park in a stable area and walk to on-site equipment if feasible. • Install access, swamp or rig matting in sensitive areas to protect soils. • Install silt fencing or other methods of erosion control, if required. • In extreme cases, work may be suspended until soils dry out or appropriate site-specific mitigation to prevent soil disturbance can be put in place. <p>5.4.18 Consult Valard Environment for support as required.</p>
<i>Excess Soils (i.e., removal from the Project Site)</i>	<p>5.4.19 No excess soils will be moved or managed without prior approval of the Valard Project leader (i.e. Valard Project Manager).</p>



Activity/Concern	Mitigation Measures
	<p>5.4.20 If excess soil is produced, materials will be managed in accordance with O. Reg 406/19 as required:</p> <ul style="list-style-type: none"> • The Valard Project Leader is responsible for compliance with the regulation. As required, a Qualified Person (QP), per O. Reg 153/04, will develop the following: <ul style="list-style-type: none"> ○ Assessment of Past Use ○ Sampling and Analysis Plan ○ Soil Characterization Report ○ Excess Soil Destination Report ○ Tracking and Records retention <p>5.4.21 Any planned re-use of excess soil or backfill on the Project will comply with Hydro One's re-use soil requirements, engineer/construction requirements or be approved by Hydro One for locations and volumes (refer to Appendix A).</p>
<i>Slurry/Liquid Soil</i>	<p>5.4.22 Slurry produced during construction (e.g., hydrovac operations) must be managed in compliance with Project and regulatory requirements. Contact Valard Environment prior to planned disposal to confirm management options:</p> <ul style="list-style-type: none"> • Offsite: Slurry must be transported and disposed of in compliance with O. Reg 406/19 (as amended) as liquid waste. • Onsite: If slurry is intended to be managed onsite, a drying pad is required consistent with the Hydro One design standard. Dried slurry from the pad must be managed in compliance with Project and regulatory requirements.
<i>Imported Soil and Backfill Requirements</i>	<p>5.4.23 Imported soil will be sourced from existing local quarries or aggregate pits where feasible.</p> <p>5.4.24 All imported aggregate must meet conditions as dictated by required regulatory approvals specific to the source of the aggregate material.</p> <p>5.4.25 Valard and the QP (refer to 5.4.19) are responsible to source and provide confirmation to Hydro One the quality of the material being imported prior to use.</p> <p>5.4.26 Maintain records of testing and imports of soils.</p>

5.5 NATURAL ENVIRONMENT AND LANDSCAPE MANAGEMENT PLAN

The management of natural environment and landscapes is integrated into the planning of access and consideration and avoidance of sensitive features is a tenet of access plan development. Mitigations for work within natural environments and land are included within various plans in the EPP including Right of Way and



VALARD CONSTRUCTION LP

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Workspace Preparation, Access and Workspace Construction, Rough Clean-up (Section 4.1), Final Reclamation, Soil Management Plan, Timber Salvage Plan, Erosion and Sediment Control Plan and Fire Prevention Plan (Sections 3.1, 3.2, 4.1, 4.2, 5.4, 5.6, 5.15, 5.18 respectively).

Targeted mitigations for wetlands, woodlots and fire preventions are presented in mitigations in 3.1, 5.6, 5.11, 5.12, 5.13, 5.14, 5.15 and 5.18.

5.6 TIMBER SALVAGE PLAN

The following Timber Salvage Plan outlines general requirements associated with harvesting of merchantable timber and disposal of logging and clearing debris on the Project. Refer to the Project Clearing and Timber Salvage Plan and Project Permits and Approvals Plan for location specific permits, approvals and agreements.

General timber salvage of disposal requirements include:

Activity/Concern	Mitigation Measures
<i>Merchantable Timber</i>	<p>5.6.1 Management of timber will be coordinated with Forest Licence Holder (e.g., Sustainable Forest Licence), Private Landowners, and affected Indigenous Communities as appropriate.</p> <p>5.6.2 Merchantable timber will be cleared in accordance with the Permit to Review Forest Resources (PTR), and SFL Overlapping Licence Agreements (OLA), the applicable agreements entered with SFL holders or in accordance with landowner agreements as applicable.</p> <p>5.6.3 Tree trunks will be cut parallel to, and within 15 cm of the ground or lower.</p> <p>5.6.4 Merchantable stands of timber within the Crown land portions of the Project will be marketed as per the corresponding SFL agreements, where applicable.</p> <p>5.6.5 Where wood is chipped, piles shall be placed outside of riparian areas to mitigate the risk of erosion into waterbodies or watercourses. In no case shall piles be closer than 10 m to the high-water mark of a waterbody or watercourse.</p> <p>5.6.6 The wood and wood products may be hauled by mills that operate in the applicable Forest Management Unit or delivered to an SFL's yards, per the OLA.</p> <p>5.6.7 In areas designated as "winter only" access, timber should be removed as expeditiously as possible to avoid hauling during break-up or the need to re-establish access the following season under the negotiated terms of the OLAs.</p> <p>5.6.8 Any merchantable timber used as part of access subgrade development will be accounted for under a scaling agreement with MNR.</p>



Activity/Concern	Mitigation Measures
	<p>5.6.9 Engage with Park administrators and the MNR to implement appropriate protocols within affected parks and conservation areas, including the management of merchantable timber cleared by the project.</p>
<p><i>Private Land- No Crown Reservation</i></p>	<p>5.6.10 All timber harvested from private land without Crown reservation will be disposed of per the agreement with the landowner.</p> <p>5.6.11 Timber not wanted for personal use will be disposed of by chipping, burning or delivered to a manufacturing facility if practical.</p>
<p><i>Private Land- Crown Reservation</i></p>	<p>5.6.12 Where there is private timber and a patent identifying the Crown's right to the trees, a B License and Scaling Agreement will be acquired from MNR to harvest the trees. Upon receipt, harvestable timber will be transported to a mill so it can be processed and sold or disposed of in accordance with the scaling plan.</p>
<p><i>Residual Logging Debris, Timber and Brush Disposal</i></p>	<p>5.6.13 Residual logging debris and timber not reserved for use by landowners or affected Indigenous communities or sale under an agreement may be mulched or chipped in place on the ROW or piled and burned contingent on the approval of a burn plan.</p> <p>5.6.14 A Slash Management Plan may be developed if required by the SFL holder.</p> <p>5.6.15 Appropriate burning permits will be acquired from the provincial and/or municipal regulatory agencies and in compliance with landowner and SFL agreements, as applicable.</p> <p>5.6.16 To the extent practicable, avoid locating burn piles on peat-rich areas where residual fires may persist or within 100m of a watercourse.</p> <p>5.6.17 Logging debris on private land may be hauled to an appropriate facility for disposal or reserved for use by the landowner. Small volumes may also be chipped and spread on the ROW in compliance with landowner agreements, as applicable.</p> <p>5.6.18 Designated tree species (if applicable) will be disposed of in accordance with local or provincial regulations.</p> <p>5.6.19 Black Ash wood will be properly disposed of within regulated areas for invasive forest pests to prevent the spread of the invasive species, emerald ash borer.</p> <p>5.6.20 Apply appropriate mitigations outlined under <i>Non-merchantable timber and slash disposal</i> in Section 3.1.</p>



5.7 INVASIVE SPECIES AND BIOSECURITY MANAGEMENT PLAN

The Invasive Species and Biosecurity Management Plan outlines the management of invasive species, noxious and agricultural pathogens. It provides mitigations based on best management practices and past project experience and will be refined and supplemented as additional Project-specific information becomes available.

Activity/Concern	Mitigation Measures
<i>Equipment Cleaning/ Vegetation</i>	<p>5.7.1 All equipment and vehicles destined for the Project must arrive in clean condition.</p> <p>5.7.2 Assess the potential for pathogens, invasive species, and the areas of risk and overlay these areas with the Project footprint, the Project Access Plan, and especially the access points from public roadways.</p> <p>5.7.3 Based on the finding of the assessment, position cleaning stations to eliminate the transfer of pathogens and invasive species between properties and from outside the Project footprint. The level of cleaning prescribed at each station is linked to the nature of the pathogens that might be expected.</p> <p>5.7.4 In areas where noxious weeds or pathogens have been identified as a concern, all vehicles and equipment may be required to undergo an appropriate level of cleaning prior to leaving a property boundary.</p> <p>5.7.5 Cleaning is required when work activities will disturb the soil or come into contact with plant material which could spread noxious weed species. Vehicles and equipment that only travel on gravel or paved roadways do not require cleaning under this mitigation plan.</p> <p>5.7.6 Adhere to <i>Clean Equipment Protocol for Industry</i>, Ontario Invasive Species Council, 2016.</p> <p>5.7.7 Practices to prevent the spread of invasive forest pests will be implemented to the extent practicable as outlined by the Canadian food inspection agency.</p> <p>5.7.8 Black Ash wood will be properly disposed of within regulated areas for invasive forest pests to prevent the spread of the invasive species, emerald ash borer.</p>
<i>Biosecurity Plan</i>	<p>5.7.9 The biosecurity plan will include a staffing matrix identifying key personnel with the authority to direct and control Project traffic.</p> <p>5.7.10 The biosecurity plan will also include requirements for daily record keeping and provisions for regular audits. The level of detail contained in the monitoring and record keeping system is usually tailored to the level of complexity of the biosecurity program.</p> <ul style="list-style-type: none"> For straightforward biosecurity programs, a daily reporting checklist and tracking spreadsheet may be all that is necessary.



Activity/Concern	Mitigation Measures
	<ul style="list-style-type: none"> For relatively complex or high-risk programs (i.e. projects with high concentrations of cultivated agricultural land), Valard has developed an efficient but very detailed record keeping system that includes tracking of vehicles, photographs, and cleaning records for every vehicle/piece of equipment and for every cleaning station.
<i>Traffic</i>	<p>5.7.11 Minimize the number of vehicles and equipment travelling across lands within areas of concern as much as reasonably possible.</p> <p>5.7.12 Restrict all ROW traffic to a single, established travel lane and only use approved access routes.</p> <p>5.7.13 Schedule activities during dry or frozen conditions where reasonably possible to reduce disturbance to the soil and minimize the risk of spreading noxious weeds and/or pathogens to adjacent land parcels.</p> <p>5.7.14 Track daily activity on the ROW and access routes and implement a robust system for ensuring adherence to the plan and record keeping.</p>

5.8 FISH AND FISH HABITAT PROTECTION PLAN

Transmission line infrastructure is designed, as much as possible, to avoid wetland, lake and watercourse features; however, due to engineering constraints, limited work may be required within riparian areas.

Mitigation and monitoring requirements to be implemented include:

Activity/Concern	Measures
<i>Staking/Flagging</i>	<p>5.8.1 Adhere to identified buffers, setbacks and machine-free zones (refer to mitigation measure 3.1.36 for setbacks). Do not complete grading or soil stripping within watercourses, waterbodies or wetlands without prior approval from regulatory agencies.</p>
<i>Clearing, Access, Development and Construction</i>	<p>5.8.2 Clearing within the riparian zone will comply with Fisheries and Oceans Canada (DFO) and Ministry of Natural Resources (MNR) guidance and best management practices (e.g., MNR Environmental Guidelines for Access Roads and Water Crossings (1990)).</p> <p>5.8.3 Corduroy will be used to maintain natural drainage patterns and only in wet areas where there are no defined channels and no impact to fish or fish habitat.</p> <p>5.8.4 Removal of riparian vegetation will be minimized to the extent reasonably practical in consideration of the width of waterbodies. Clearing of compatible vegetation will be limited to a 10 m width at watercourse crossings unless to meet other objectives (i.e., safety). Road ROW widths</p>



Activity/Concern	Measures																				
	at watercourse crossings will be minimized, within reason, to 10 m and 30 m within riparian buffers.																				
<i>Guideline RAP and setback distances for SAR or other species/features of conservation concern</i>	<p>5.8.5 Guideline RAP and setback distances for SAR to be adhered to as appropriate:</p> <p><i>Table 1. Guideline Restricted Activity Periods for Fish Species</i></p> <table> <tr> <th>Species/Habitat</th><th>Sensitive Timing (RAP)[†]</th></tr> <tr> <td>Lake Trout</td><td>September 1 to May 31</td></tr> <tr> <td>Muskellunge</td><td>April 1 to July 15</td></tr> <tr> <td>Bass</td><td>April 1 to July 15</td></tr> <tr> <td>Walleye spawning</td><td>April 1 to June 20</td></tr> <tr> <td>Lake Sturgeon</td><td>April 1 to June 30</td></tr> <tr> <td>Lake Whitefish</td><td>September 15 to May 31</td></tr> <tr> <td>Cisco (salmonid fish)</td><td>October 1 to May 31</td></tr> <tr> <td>Spring Spawning Species</td><td>April 1 to June 15</td></tr> <tr> <td>Fall spawning/overwintering/early spring spawning species</td><td>September 1 to June 15</td></tr> </table> <p>Note: Table will be updated as per MNR and DFO approvals</p>	Species/Habitat	Sensitive Timing (RAP) [†]	Lake Trout	September 1 to May 31	Muskellunge	April 1 to July 15	Bass	April 1 to July 15	Walleye spawning	April 1 to June 20	Lake Sturgeon	April 1 to June 30	Lake Whitefish	September 15 to May 31	Cisco (salmonid fish)	October 1 to May 31	Spring Spawning Species	April 1 to June 15	Fall spawning/overwintering/early spring spawning species	September 1 to June 15
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<i>Working Near Watercourse, Waterbodies and Wetlands</i>	<p>5.8.1 For Lake Trout lakes, a 120 m setback will be implemented, as practicable, where within this setback no vegetation removal will take place except for access roads and transmission line, which will be progressively revegetated once no longer required.</p> <p>5.8.2 Any in-water work required within Lake Sturgeon habitat or other aquatic SAR habitat may require authorization under the ESA. Consult with MECP Species at Risk Branch (SARB) and/or DFO on impacts to aquatic SAR species and/or their habitats, and associated SAR permits, as required.</p> <p>5.8.3 Construction near and in-water during the fish and fish habitat proposed restricted activity periods, including aquatic SAR will be avoided to the extent practical. Work may not be conducted during the proposed restricted timing window, or within a setback unless permits/approvals are obtained from the appropriate regulatory agency (MNR and DFO) and notification is provided to affected Indigenous communities.</p>																				



Activity/Concern	Measures
	<p>5.8.4 Disturbance of portages outside of the Project footprint will not be permitted and instream activity will be completed in the shortest timeframe possible.</p> <p>5.8.5 Limit to the extent practical, locating temporary structures and workspaces (camps, laydown yards, helicopter pads, fly yards, etc.) within riparian buffers. Notify MNR prior to work starting if construction activities or equipment use is required within wetlands that are not already approved under MNR permits. Work may not be conducted unless clearance is obtained from the appropriate regulatory agency.</p> <p>5.8.6 Use low ground pressure equipment and/or matting, geotextiles or subsoil ramp to limit effects to watercourses, waterbodies and wetlands, if warranted.</p> <p>5.8.7 Short-term water taking and dewatering from surface water and/or groundwater sources for construction purposes will be conducted in accordance with applicable Ontario regulations (refer to the Project Permitting and Approvals Plan).</p> <p>5.8.8 Implement appropriate precautions to prevent deleterious substances (e.g., gasoline, oil, wet concrete) from entering watercourses, waterbodies, or wetlands. Implement handling and storage measures outlined in Sections 5.11, 5.12, and 5.13.</p> <p>5.8.9 Keep emergency spill kits onsite at strategic locations (e.g., fueling stations) and on each piece of equipment in the event that fluid leaks or spills from machinery.</p> <p>5.8.10 Refer to the Groundwater Dewatering and Discharge Plan (Section 5.19) for water taking and discharge activities near watercourses and waterbodies.</p>
<i>Blasting near Waterbodies</i>	<p>5.8.11 Blasting in a waterbody will not be permitted unless approved by the appropriate regulatory body.</p> <p>5.8.12 Blasting operations conducted near a waterbody occupied by fish will be carried out in accordance with DFO's Measures to Avoid Causing Harm to Fish and Fish Habitat Including Aquatic Species at Risk and Guidelines for the Use of Explosives in or Near Canadian Fisheries Water.</p>
<i>Watercourse, Waterbodies and Wetland crossings</i>	<p>5.8.13 Monitoring will be completed by a qualified professional for all in-water activities (i.e., installations), including during instream construction (e.g., installation and removal of culverts) to observe implementation and report on the effectiveness of the procedures and mitigation measures for minimizing potential effects to fish and fish habitat. Monitoring efforts include:</p>



Activity/Concern	Measures
	<ul style="list-style-type: none"> Monitoring for turbidity and/or Total Suspended Solids (TSS); Monitoring presence or absence of oil or oil sheen; Monitoring of streamflow rates and/or water levels, including dam and pump/diversion activities associated with the installation and/or removal of temporary crossings; Monitor effectiveness of erosion and sediment control measures; Conduct post-construction monitoring following installation of temporary crossings annual in the spring until the crossing is removed; and Post-construction monitoring of temporary culvert crossings includes removal of blockages (e.g., ice, woody debris etc.). <p>5.8.14 Machinery is to arrive onsite free of mud and vegetation debris and maintained to be free of fluid leaks. Ensure that all construction equipment is clean prior to fording, where required.</p> <p>5.8.15 Use existing bridges and crossings where practicable to limit development of new crossings. Where new water crossing structures are proposed, preferred structures will avoid in water work (i.e., clear-span bridges, snow fills, ice bridge). The number of water crossings required for the project will be minimized, where possible.</p> <p>5.8.16 Establish new watercourse crossing structures as required to support construction activities. Watercourse crossing structures may include:</p> <ul style="list-style-type: none"> Clear-span bridges; Snow fills; Ice bridges; and Culverts. <p>5.8.17 Prior to construction, all watercourse crossings will be cross referenced with the master water crossing list and the water crossing protocol. If new waterbodies are identified, a QEP will be engaged to determine crossing methods, in water timing restrictions and obtain the required approvals or permits from MNR and DFO prior to crossing. Affected Indigenous Communities in close proximity, and other stakeholders as appropriate, will be informed of new watercourse crossings.</p> <p>5.8.18 Design, construct, operator and maintain watercourse crossing structures according to the crossing method identified on the Project Access Plan and master crossing list, and in accordance with regulatory approvals from the MNR, DFO and Conservation Authorities as warranted.</p>



Activity/Concern	Measures
	<p>5.8.19 Where channel realignment is required, watercourse crossing design and construction will maintain the characteristic channel width, depth, slopes and substrate. Channel realignment will:</p> <ul style="list-style-type: none"> • Be avoided through Project planning and design to the extent practicable; • Only be undertaken in locations where specific conditions are met or where required for safety and security purposes; and • If required, the plan and mitigations will be reviewed by the appropriate agency (e.g., DFO and/or MNR) as part of watercourse crossing permitting. <p>5.8.20 Snow fills, ice bridges and clear span bridges will comply with DFO's code of practices.</p> <p>5.8.21 Follow all permit requirements and applicable measures from DFO's Measures to Avoid Causing Harm to Fish and Fish Habitat Including Aquatic Species at Risk.</p> <p>5.8.22 Fording of a watercourse is not permitted as a permanent crossing method for construction.</p> <p>5.8.23 If fording is required, it will be a one-time crossing with clearing and bridge installation equipment (over and back) in flowing water conditions with stable beds and low sloping banks or approaches. Any fording will follow DFO's Code of practice for temporary fords.</p> <p>5.8.24 If construction activities are required below the high-water mark within the RAP timing window, then approvals and/or authorizations must be obtained from the appropriate regulatory authorities (MNR and DFO) prior to works occurring.</p> <p>5.8.25 Construction near and in-water during the fish and fish habitat proposed restricted activity period will be avoided. In-water work may not be conducted during the proposed restricted timing window, or within a setback unless permits/approval is obtained from the appropriate regulatory agency (MNR and DFO) where required and notification is provided to affected Indigenous communities in close proximity.</p> <p>5.8.26 Crossing unstable or unconfined waterbodies will occur during frozen conditions to limit disturbance. If frozen conditions are not feasible, erosion and sediment control measures will be implemented (refer to Section 5.15 Erosion and Sediment Control Plan for additional details) and on-site monitoring will occur to ensure no impacts to fish. If fish salvage is required refer to mitigation measure 5.8.31 below.</p> <p>5.8.27 Culvert installations in watercourses must comply with all permit conditions (i.e., MNR and DFO regulatory and permitting requirements) and will be supported by a QEP as applicable. Culvert installations will be in</p>



Activity/Concern	Measures
	<p>accordance to SSG Section 5.1.2 Water Crossings and follow the MNR Environmental Guidelines for Access Roads and Water Crossings.</p> <p>5.8.28 Instream construction will be completed in isolation of flowing water and follow the DFO Standard for In-water Site Isolation.</p> <p>5.8.29 Authorization and licence to collect fish for scientific purposes will be obtained by the QEP to rescue and relocate fish prior to construction in the isolated workspace.</p> <p>5.8.30 Where temporary diversions are used to divert the water flow around the isolated workspace, bypass pumping will be monitoring and adjusted as necessary to maintain Downstream flow and prevent disturbing stream bed. Screened pumps will be used to reduce the risk of entrainment or impingement. Follow the DFO Code of practice for end-of-pipe fish protection screens for small water intakes in freshwater.</p> <p>5.8.31 Culvert installation in watercourse will comply with DFO's code of practice.</p> <p>5.8.32 Culverts will be regularly monitored and maintained to reduce the risk of blockages from forming and causing ponding or backwater effects. Where culverts are installed at identified fish bearing water crossings, debris removal activities will follow DFO's Code of Practice on Culvert Maintenance.</p> <p>5.8.33 Culvert maintenance will be completed in consideration of best management practices and permit/approval conditions, including MNR Guidelines for Access Roads and DFO's Measures to Protect Fish and Fish Habitat.</p> <p>5.8.34 Ensure that all necessary equipment and materials required for vehicle/equipment structures are onsite and ready for installation prior to commencing instream work. Complete all work as quickly as reasonably possible to shorten the duration of disturbance.</p> <p>5.8.35 Only clean material free of particulate matter and deleterious substances will be used for water crossing installation.</p> <p>5.8.36 Install, monitor and manage appropriate erosion and sedimentation controls as outlined in the Erosion and Sedimentation Control Management Plan (Section 5.15).</p> <p>5.8.37 Schedule construction on wetlands or areas subject to inundation or flooding to occur when ground conditions are frozen, where practicable.</p> <p>5.8.38 Postpone instream construction if elevated flows (i.e., after precipitation events of 5 mm or more) or flood conditions are present or anticipated outside of identified in water work timing restrictions. Activities can resume when water levels have subsided or equipment/technique suitable for conditions are deployed.</p>



Activity/Concern	Measures
	<p>5.8.39 Machinery is to arrive onsite free of mud and vegetation debris and maintained to be free of fluid leaks. Ensure that all construction equipment is clean prior to crossing any watercourse, waterbody or wetland, where reasonably possible.</p>
<p><i>Snow Fills and Ice Bridges</i></p>	<p>5.8.40 During winter construction, snow fills or ice bridges may be used as temporary crossing structures to travel over frozen water bodies if approved by the appropriate regulatory agency and will follow the DFO code of practice for snow fills and ice bridges.</p> <p>5.8.41 Install snow fills and ice bridges using clean (ambient) water drawn from an approved source and/or clean snow ploughed in from surrounding area.</p> <p>5.8.42 Construct approaches using clean, compacted snow and ice to a sufficient depth to protect the banks of the water body. No logs or woody debris are to be left within the water body or on the banks or shoreline where they can wash into the water body. However, clean logs may be used to stabilize approaches.</p> <p>5.8.43 Crossings where snow fills or ice bridges are not feasible have been eliminated from the access plan or alternative access options are available. If a waterbody cannot be crossed with either a snow fill or ice bridge then the alternate route would be used, or the design changed to an all season crossing (culvert or bridge) subject to the approval of the MNR and the appropriate engagement of the communities</p>
<p><i>Removing Temporary Watercourse, Waterbody and Wetland Crossings</i></p>	<p>5.8.44 Monitoring will be completed by a qualified EM for all in-water activities (i.e., installations), including during instream construction (e.g., installation and removal of culverts) to observe implementation and report on the effectiveness of the procedures and mitigation measures for minimizing potential effects to fish and fish habitat.</p> <p>5.8.45 Snow fill and ice bridge removals will comply with DFO's code of practice: ice bridges and snow fills.</p> <p>5.8.46 No logs or woody debris as a result of construction activities will be left within the water body or on the banks or shoreline where they can wash into the water body.</p> <p>5.8.47 Construction near and in-water during the fish and fish habitat proposed restricted activity period will be avoided. Work may not be conducted during the proposed restricted timing window, or within a setback unless permits/approval is obtained from the appropriate regulatory agency (MNR and DFO) where required and notification is provided to affected Indigenous communities in close proximity.</p>



Activity/Concern	Measures
	<p>5.8.48 All permit requirements and applicable measures from DFO's Measures to Avoid Causing Harm to Fish and Fish Habitat including Aquatic Species at Risk will be followed.</p> <p>5.8.49 If fording is required to support removal of clear-spans, it will be completed in compliance with EA specifications and/or authorized by the appropriate regulatory agency (e.g., MNR, DFO, Conservation Authority).</p> <p>5.8.50 No construction activities are allowed below the high-water mark within the RAP timing windows.</p> <p>5.8.51 Temporary culverts will be removed in compliance with all permit conditions and will comply with DFO's code of practice: in-water site isolation standard and will be supported by a QEP as applicable.</p> <p>5.8.52 Instream construction will be completed in isolation of flowing water and follow the DFO standard for in-water site isolation. Where temporary diversions are used to divert the water flow around the isolated workspace, bypass pumping will be monitoring and adjusted as necessary to maintain downstream flow. Disturbed areas will be stabilized and restored to prevent erosion, Erosion and sediment control measures will be kept in place until all disturbed ground has been stabilized.</p> <p>5.8.53 Temporary watercourse crossing structures, and all materials will be removed upon project completion in accordance with approvals from MNR, DFO and Conservation Authorities as warranted. Restoration and stabilization of waterbody banks and other disturbed areas will be completed once the crossing is no longer required.</p>

5.9 WILDLIFE MANAGEMENT PLAN

Wildlife is regularly observed or encountered on the ROW and at project sites in remote or agricultural areas. Depending on the location of the work, different species may be encountered and various spatial, timing or work restrictions and guidelines will apply. Some species are protected under provincial or federal legislation, including the *Federal Species at Risk Act* (SARA). Migratory birds and raptors are protected under the federal *Migratory Birds Convention Act* and/or provincial legislation or regulations. Additional constraints associated with provincial or federal requirements and/or permitting SAR, may apply to some Project activities. The following Wildlife Management Plan (WMP) outlines key mitigation measures to be implemented based on industry standard best practices (BMPs) and past project experience. The final plan, which will incorporate any additional Project or regulatory requirements, will be developed by Valard in consultation with the Owner prior to construction.

Guideline RAP and setback distances for SAR or other wildlife species of conservation concern are included below.

Clearing and construction works will be scheduled to avoid known sensitive timing or RAPs and/or recommended setback distances (buffers) identified for SAR, SWH and other environmentally sensitive areas or species of



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concern (e.g., PSW, Significant Woodlands, rare vegetation communities, etc.), as well as key wildlife habitat features, such as stick nests, dens, hibernacula, mineral licks, etc., to the extent practical.

Where clearing or construction work around a recommended RAP or setback cannot be achieved, pre-construction nesting and/or wildlife surveys will be conducted by a Valard QEP (with support from Indigenous monitors where requested), and site-specific mitigation and monitoring plans will be developed in consultation with the Owner, Indigenous monitors, and required regulatory agencies (i.e., MNR, MECP, ECCC) as appropriate to reduce work delays, while maintaining wildlife or habitat protection measures.

Additional BMPs to be implemented to avoid or minimize potential negative impacts to wildlife include:

Activity/Concern	Mitigation Measures
<i>Project Orientation/Training</i>	<p>5.9.1 All staff to undergo basic environmental awareness training (as per Valard EMS). A project-specific orientation will be developed and provided to Valard employees and contractors and will include project specific environmental requirements and constraints based on project approvals.</p> <p>5.9.2 Train personnel, workers and Subcontractors on wildlife that may occur in the vicinity of the work area and how to identify and report wildlife, wildlife habitat features, such as raptor nests, active mammal den, bat hibernacula, snakes/ snake hibernacula, beaver lodge, turtles, amphibians etc.</p> <p>5.9.3 Construction personnel will be aware of the potential presence of, and able to identify SAR with the potential to occur within the general work areas.</p> <p>5.9.4 Construction personnel will be aware of requirement outlined in 5.9.41 through 5.9.43, to stop work and contact Environment personnel should previously unknown wildlife features or SAR are discovered or becomes apparent that known wildlife or wildlife habitat features may be harmed or damaged.</p>
Staking/Flagging	<p>5.9.5 Use only approved/existing access routes and Project sites; do not trespass or clear vegetation outside of the Project boundaries.</p> <p>5.9.6 Ensure boundaries/setbacks of significant wildlife habitats (i.e., SAR, SWH, wetlands, etc.) and other site-specific features (e.g., mineral licks, stick nests, etc.) are clearly marked (i.e., staked and flagged) in the field and mapped to prevent unauthorized access. Inspect and maintain flags and stakes around boundaries/setbacks on a weekly basis during construction activities in that area and replace flags or stakes as required.</p> <p>5.9.7 Avoid in-water works in reptile and amphibian overwintering areas during the hibernation season. Where this cannot be achieved, exclusion fencing (i.e., silt fence) may be deployed at a distance of 30 m around wetlands with high potential as habitat for reptiles and amphibians prior to emergence from hibernation in areas of active construction, where</p>



Activity/Concern	Mitigation Measures
	<p>practical and appropriate, to isolate specific areas or prevent amphibians and/or reptiles from crossing access roads or accessing construction sites during sensitive periods/phases.</p> <p>5.9.8 If needed, exclusion fencing will be temporarily erected, at strategic areas to prevent sensitive wildlife (e.g., reptiles and amphibians) from entering a work area. Exclusion fencing will be inspected daily during construction activities in that area to confirm effectiveness and to ensure they are not circumvented, and no wildlife are being entrapped in the fence. Fence installation and design will consider target species, topography, substrate, etc. and align with provincial best practice recommendations, considerations, and guidance. If the effectiveness of the exclusion fence is compromised the design will be reassessed by the QEP.</p>
<p><i>Clearing, Access Development and Construction</i></p>	<p>5.9.9 Work within close proximity to a wetland (<30 m) will require additional mitigation measures that will be developed with affected Indigenous communities to support MNR approval. The EPP will be updated with the additional mitigation measures and will be added to Section 1.5 Site-Specific Mitigation Measures, as appropriate.</p> <p>5.9.10 No storage of fuel or equipment is permitted within 120 m of a watercourse or wetland.</p> <p>5.9.11 Impacts to aquatic feeding areas for moose will be minimized by providing a 120 m avoidance buffer of upland area. In areas where this buffer cannot be maintained, vegetation removal will be completed between December and March when Moose are less likely to be using aquatic feeding areas.</p> <p>5.9.12 Gaps in snow berms will be left open at known wildlife corridor locations. In addition, gaps in snow berms will be implemented if incidental discovery of wildlife corridors are observed during construction.</p> <p>5.9.13 Vegetation removal will be conducted outside of the migratory bird breeding season, the sensitive season for raptors, and the bat active season, where practicable (refer to mitigation measure 5.9.17).</p> <p>5.9.14 Moving nests to alternate structures and/or removing unoccupied nests will occur during the non-breeding season. Ensure appropriate consultation with MNR for verification and confirmation that the nest can be removed.</p> <p>5.9.15 Removal of bald eagle nests during the RAP (or other raptor and non-raptor nests during their respected RAP) will require MNR authorization, other approvals through MBCA and SARA, and notification to affected Indigenous communities in close proximity. The methods for removal will be determined by MNR.</p>



Activity/Concern	Mitigation Measures
	<p>5.9.16 In the event a tree with an existing bald eagle nest is removed during vegetation removal outside of the RAP, a nest platform will be installed to replace the nesting habitat if existing nesting habitat in the immediate area is absent.</p> <p>5.9.17 In the event vegetation clearing is required during the breeding bird season or nesting period, bird nest surveys (nest searches) will be conducted by a QEP in accordance with applicable provincial and federal requirements. If nests or birds exhibiting agitated breeding behaviours are observed, work will cease within a species-specific setback from the nest, until the young of year have fledged, or the nest is determined to be inactive. MNR must verify and confirm the nest value no longer exists and can be declared as gone. No work will proceed, that would impact the nest value, until such time that MNR has verified that the value no longer exists and work can proceed. If no nests are observed, clearing can occur.</p> <p>5.9.18 Moderate to high impact operations (including vegetation removal, helicopter flights, blasting, drilling and implosion splicing) will be avoided to the extent practical within the recommended setback distance for active Bald Eagle Nests, Bank Swallow colonies, Bobolink habitat, Chimney Swift habitat, Eastern Whip-poor-will Habitat, Trumpeter Swan (or other swans), Gray Wolf dens, black bear dens and den entrance for furbearing mammals during their respective RAP.</p> <p>5.9.19 Prior to blasting, the blasting zone (typically 50 m) will be checked for large wildlife species. When blasting activities are required during the RAP in SAR habitat, additional regulatory authorizations will be obtained.</p> <p>5.9.20 Incompatible vegetation will be selectively removed, and compatible vegetation that does not conflict with construction activities will be retained to support regeneration and provide cover to reduce line of sight for predators.</p> <p>5.9.21 Snag (dead standing trees) and cavity trees that do not pose a risk to the operation of the transmission line will be identified (i.e., flagged) and retained.</p> <p>5.9.22 Areas where active animal dens, burrows or lodges are encountered will be left undisturbed until unoccupied, as determined by a QEP.</p> <p>5.9.23 Avoid in-water works in reptile and amphibian overwintering areas during the hibernation season. Where this cannot be achieved, exclusion fencing will be erected, where practical and appropriate, to address work in wetlands during the winter period to prevent turtles from entering overwintering areas. In certain situations, other mitigation measure may include isolating and dewatering the aquatic work area prior to September 1st.</p>



Activity/Concern	Mitigation Measures
	<p>5.9.24 If amphibian salvage is required, the QEP will ensure a wildlife scientific collectors permit is obtained prior to relocation.</p> <p>5.9.25 Safe handling practices (e.g., Ontario Species at Risk Handling Manual: For Endangered Species Act Authorization Holders) will be used by QEPs, wherever practical, to move turtles, snakes and other herpetofauna to areas away from construction activities. If QEPs are not available or able to travel to the location within a timely manner (i.e., within time limits specified in the manual), then they may be completed by other project personnel.</p> <p>5.9.26 Project waste must be stored and/or removed from wetland areas immediately (refer to Waste Management and Disposal Plan, Section 5.13).</p> <p>5.9.27 Natural vegetation will be retained, where practical, and native species will be used when reseeding or planting.</p> <p>5.9.28 Complete construction as quickly and efficiently as possible near riparian areas and SWH to minimize the disturbance window; initiate reclamation as soon as possible.</p> <p>5.9.29 Consult with MECP Species at Risk Branch (SARB) on impacts to SAR species (i.e., bat species, etc.) and/or their habitats, and associated SAR permits, as required.</p> <p>5.9.30 Comply with permit requirements where there are potential effects to SAR and their habitats.</p> <p>5.9.31 Where stockpiling of aggregate material is required, implement MNR Best Management Practices for protection of bank swallow habitat.</p> <p>5.9.32 Apply a 90 m setback on identified chimney swift nesting/roosting tree during the Chimney Swift Active Season (May 15 to August 31) during low impact operations (i.e., foundation, erection) and 500 m setback for moderate to high impact operations (i.e., vegetation removal, heli work, blasting).</p> <p>5.9.33 Structures that support Barn Swallow nests or Chimney Swift Nest/Roosts may be removed outside of the RAP (April 15 to August 31). Notify MECP prior to removing structure.</p> <p>5.9.34 If work in known Chimney swift habitat is required during the RAP, Chimney swift surveys will be conducted in accordance with the Ontario SwiftWatch protocol (Birds Canada 2023b) as determined through eBird data for this species, specific to Rainy River and Thunder Bay Districts (eBird 2023).</p> <p>5.9.35 If work in known Eastern Whip-poor-will habitat is required during the RAP, Eastern whip-poor-will surveys will be conducted at known</p>



Activity/Concern	Mitigation Measures												
	<p>occurrence records using the DRAFT Survey Protocol for Eastern Whip-poor-will (<i>Caprimulgus vociferus</i>) in Ontario (2014).</p> <p>5.9.36 Nest platforms will be installed in coordination with Hydro One in the event a bald eagle nest is cut down or the 400 m setback between nests and moderate to high impact construction activities cannot be achieved. Affected Indigenous Communities will be notified.</p> <p>5.9.37 BATS:</p> <ul style="list-style-type: none">• Project activities causing loud noise or vibrations (e.g., drilling, blasting, implosion splicing) will not be undertaken within 500 m of a bat hibernacula during the hibernation period (August 1 to May 31) without prior engagement and approval of regulatory agencies.• Clearing may be conducted within 200-500 m distance from hibernation habitat outside of the maternity season (May 1 to August 31) for bats providing noise and vibration is restricted to that associated with logging (e.g., chain saw, skidder or mechanical harvesting equipment).• No project related disturbance (e.g., tree removal or other construction activity) is permitted within 200m of a bat hibernaculum without prior engagement and approval of regulatory agencies.• If potential maternity roost habitat is to be removed during the roosting period (May 1 to August 31), it will be subject to ESA permitting and site-specific mitigation measures to be developed in consultation with MECP SARB• Avoid physical disturbances to existing anthropogenic structures located off of the project ROW and access roads that could be roosts for bats (e.g., sheds, barns, houses, buildings and bridges).												
<i>Guideline RAP and setback distances for SAR or other species/features of conservation concern</i>	<p>5.9.38 Guideline RAP and setback distances for SAR or other species of concerns to be adhered to as appropriate and as per SSG Nest AOC. Operations that deviate from the SSG require MNR approval prior to operations.</p> <p><i>Table 2. Guideline RAP and Recommended Setback Distances</i></p> <table><tr><th>Species/Habitat</th><th>Sensitive Feature</th><th>Sensitive Timing (RAP)[†]</th><th>Recommended Setback[†]</th></tr><tr><td>Migratory Birds / SWH</td><td>Breeding/Nesting</td><td>April 15 to August 31</td><td>Variable 20 m to 300 m</td></tr><tr><td>songbirds or other small birds</td><td>Nests containing eggs or young</td><td>-</td><td>3 m (during forest management operations)</td></tr></table>	Species/Habitat	Sensitive Feature	Sensitive Timing (RAP) [†]	Recommended Setback [†]	Migratory Birds / SWH	Breeding/Nesting	April 15 to August 31	Variable 20 m to 300 m	songbirds or other small birds	Nests containing eggs or young	-	3 m (during forest management operations)
Species/Habitat	Sensitive Feature	Sensitive Timing (RAP) [†]	Recommended Setback [†]										
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Activity/Concern	Mitigation Measures			
	(includes Canada Warbler and Olive-sided Flycatcher)			
	Bank Swallow Colony ⁺⁺⁺	Breeding/Nesting	May 1 to August 31	50 m to 500 m
	Raptors ⁺⁺	See below for various species		
	Great Gray owl Northern Goshawk, Red Shouldered Hawk	Breeding/Nesting	March 15 to July 15	400 m
	Barred Owl (stick nest)	Breeding/Nesting	March 15 to July 15	200 m
	Barred Owl (cavity)	Breeding/Nesting	March 15 to July 15	100 m
	Broad-winged Hawk	Breeding/Nesting	April 1 to July 31	100 m (20 m roads)
	Cooper's Hawk	Breeding/Nesting	April 1 to July 31	100 m (20 m roads)
	Great Horned Owl	Breeding/Nesting	February 1 to May 31	100 m (20 m roads)
	Great Horned Owl (cavity)	Breeding/Nesting	February 1 to May 31	50 m (20 m roads)
	Long-eared Owl Red-tailed Hawk	Breeding/Nesting	March 15 to July 15	100 m (20 m roads)
	Merlin or Sharp-shinned Hawk	Breeding/Nesting	April 1 to July 31	50 m (20 m roads)
	Northern Hawk Owl	Breeding/Nesting	March 15 to July 15	50 m (20 m roads)
	American Kestrel, Boreal Owl	Breeding/Nesting	April 1 to July 31	25 m (20 m roads)
	Eastern Screech Owl,	Breeding/Nesting	March 15 to July 15	25 m (20 m roads)



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Activity/Concern	Mitigation Measures			
	Northern Saw-whet Owl			
	Turkey vulture (ground nest)	Breeding/Nesting	May 1 to August 31	150 m (20 m roads)
	Common Nighthawk	Breeding/Nesting	May 1 to August 31	400 m (no harvest within 100 m of a nest)
	Bald Eagle	Breeding/Nesting	March 1 to August 31	400 m (no harvest within 100 m of a nest)
	Short-Eared Owl	Breeding/Nesting	March 15 to July 15	100 m
	Northern Harrier (ground nest)	Breeding/Nesting	April 1 to July 31	50 m (20 m roads)
	waterfowl, grouse, or wild turkeys	Nest containing eggs	-	10 m (during forest management operations)
	Osprey	Breeding/Nesting	April 15 to August 31	300 m (no harvest within 75 m of a nest)
	Great Blue Heron	Breeding/Nesting	April 1 to August 15	300 m (no harvest within 75 m of a nest)
	Bonaparte's gull	Breeding/Nesting	May 1 to August 31	150 m (no harvest within 75 m of a nest)
	Common Raven	Breeding/Nesting	February 15 to June 15	50 m
	Red-headed Woodpecker	Breeding/Nesting	May 1 to July 31	Delineated Habitat
	Bobolink	Nesting	April 15 to August 31	varies (refer to SSG Nest AOC)
	Chimney Swift (cavity)	Breeding/Nesting	May 1 to September 30	500 m (high impact operations) 90 m (low impact operations)
	Barn Swallow	Breeding/Nesting	May 1 to August 31	varies (refer to SSG Nest AOC)



Activity/Concern	Mitigation Measures			
	Eastern Whip-poor-will ****	Nest sites	May 1 to August 14	200 m
	Trumpeter Swan (or other Swans)	Nesting site	April 15 to August 31	120 m
	Bats / SWH	Maternity Hibernation	May 1 to August 31 August 15 to May 30	60 m 200 m
	Amphibian	Breeding Hibernation	March 15 to June 7 October 1 to March 15	30 m to 120 m
	Turtle / SWH	Breeding/Nesting Wintering Active Season	May 15 to July 15 October 31 to March 31 April 1 to October 31	30 m to 300 m
	Reptiles	Active Season	April 1 to October 31	Variable 30 m to 300 m
	Moose	Aquatic Feeding	Year Round	120 m
	Wolverine	Den Sites	January 1 to March 30	4 km
	Grey Fox	Den Site	February 15 to July 15	100 m
	Grey Wolf	Den Site	April 15 to July 15	200 m
	Black Bear	Den Site	October 15 to April 30	100 m
	Cougar Den	Den Site	April to September*****	200 m (100 m for hauling and road maintenance)
	Den site for furbearing mammals (other than red foxes, skunks, wolves, and wolverines) in caves, excavated burrows, under large piles of coarse woody material and other enduring features.	Den Site	Variable	20 m
	Den site for furbearing mammals (other than red foxes, skunks, wolves, and wolverines)	Den Site	Variable	3 m



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Activity/Concern	Mitigation Measures			
	in tree cavities, hollow logs, brush, and other transitory features.			
	PSW	Wetland	-	120 m
	<p>[†]Recommended RAPs and setback distances will be reviewed and revised prior to construction to reflect regulatory conditions (i.e., AOC, ESR, ESA permit, as required), federal or provincial guidelines, the application of mitigation, offset plans and/or Owner revisions. Recommended setbacks may vary depending on species and type of habitat and level of disturbance.</p> <p>^{**}Where raptor nests such as Osprey or Bald Eagle are encountered, it is Hydro One protocol to implement a 400m setback for moderate to high impact operations (i.e., helicopter flights, drilling, blasting and implosion splicing) and to leave the nest until any young have fledged, unless there is an immediate safety concern to be addressed. If there are no young or eggs, the nest may be removed and/or replaced.</p> <p>^{***}Where vegetation removal is required within the RAP for Bank Swallow Colonies, a 50m setback will be applied.</p> <p>^{****}If an eastern whip-poor-will nest is identified during field surveys prior to construction using the DRAFT survey protocol for Eastern Whip-poor-will (MNR 2014), it will be mapped in accordance with the General Habitat Description (GHD) and submitted in the project Information Gathering Form for review by MECP SARB to determine if an authorization under the ESA is required.</p> <p>^{*****}Kittens are typically born between April and September, but occupied dens may be located at any time of year. Thus, the denning period is potentially different for each occupied den encountered and is considered to extend for 8 weeks from the date an occupied den is located, or until a den is known to be no longer occupied.</p> <p>5.9.39 In the event the set back distances cannot be achieved and/or activities are required within the identified RAP for SAR or other species of concern, MNR will be engaged to discuss if additional mitigation measures are required. If nest removal is required, MNR and MECP SARB will be engaged to acquire the necessary permits for this work. Affected Indigenous communities in close proximity will be notified. Site specific mitigation, monitoring and/or habitat enhancement may be required (e.g., nest platforms).</p>			
Incidental Discovery	<p>5.9.40 Stop work if any previously unknown wildlife feature of concern (e.g., nests, hibernacula, denning site, etc.) are discovered during construction, contact Valard Environment to initiate avoidance and/or site-specific mitigation planning and associated communications with the Owner, ROW Field Manager and regulators (MNR), as required.</p> <p>5.9.41 Should SAR be encountered during construction, the occurrence must be documented with location, date and time. This information, as well as photos (if possible), should be provided to the Hydro One Environmental Planner immediately. Any work activities that have the potential to harm the SAR or their habitat must be halted until direction has been provided to proceed. The required activities will be assessed to determine whether the work/schedule can be modified, or mitigation measures employed, to avoid potential effects on SAR and their habitat.</p>			



Activity/Concern	Mitigation Measures
	<p>5.9.42 If avoidance of SAR and/or SAR habitat is not possible, MECP, ECCC and/or DFO will be consulted as required to mitigate the impact of the activities and/or assess the need for permitting/approvals under the ESA.</p> <p>5.9.43 Information regarding incidental discoveries will be shared with Indigenous monitors to collaborate on additional mitigation measures as appropriate.</p>
<p><i>Human-Wildlife Interactions, Encounters and Observations</i></p>	<p>5.9.44 Develop mitigation strategies to reduce potential impacts to sensitive or priority harvesting (including big game and small game hunting, trapping, fishing, and plant and medicine gathering) areas identified by affected Indigenous communities as reasonably practical (e.g., minimize disturbance to and access to harvesting areas where possible). If construction activity cannot avoid identified sensitive or priority harvesting areas during specified priority harvesting seasons (as determined through two-way dialogue with each affected First Nation), affected Indigenous communities will be notified of the scope and timing of these activities at least 21 days in advance to provide sufficient time for the collaborative development of measure to mitigate disturbances and protect Indigenous harvesters' safety (e.g., issuing notices to the community with enough advance notice to allow them to change harvesting plans).</p> <p>5.9.45 Employees will be prohibited from engaging in fishing or hunting on the Project site.</p> <p>5.9.46 Firearms are not permitted in Project vehicles, within Project Area or at associated Project facilities.</p> <p>5.9.47 Recreational use of all-terrain vehicles by Project personnel is prohibited in the Project Site.</p> <p>5.9.48 Crews will be prohibited from feeding, harassing or disturbing wildlife.</p> <p>5.9.49 Crews will be prohibited from possessing or transporting a dead animal.</p> <p>5.9.50 Recent wildlife sightings and appropriate mitigation will be discussed during the tailgate meetings.</p> <p>5.9.51 All construction garbage will be collected and disposed of to avoid attracting animals. Waste containers shall be readily available and wildlife-proof. Waste management practices will be monitored for improvement through adaptive management, when necessary (Refer to Waste Management and Disposal Plan, Section 5.13).</p> <p>5.9.52 Vehicles will adhere to safe speed limits, particularly around blind corners. Vehicles will yield to wildlife on roads and will communicate the presence of wildlife on or near roads to other crews and personnel working in the area; signs warning drivers of high use wildlife areas will be posted as required.</p>



Activity/Concern	Mitigation Measures
	<p>5.9.53 Document (location, date, time, and photos, if possible) and report all wildlife sightings, issues and incidents related to wildlife encounters (e.g., nuisance or aggressive behaviour, trapped, injured or dead wildlife, and collisions with wildlife) as soon as possible to Valard Environment Staff. The Owner and regulatory agencies will be notified as applicable (e.g., SAR species encounters/observations). All SAR observations will be submitted to Natural Heritage Information Centre (NHIC).</p>

5.10 RARE PLANT MANAGEMENT PLAN

This section describes the Rare Plant Management Plan including a contingency plan for unidentified rare plant species or community discovered through the course of construction.

Activity/Concern	Mitigation Measures
<i>Avoidance</i>	<p>5.10.1 During the planning phase known rare plant vegetation communities will be avoided.</p> <p>5.10.2 Prior to construction known rare plant population will be flagged in the field to ensure sites are not disturbed inadvertently.</p>
<i>Known Rare Plant Features</i>	<p>5.10.3 Rare plants and rare plant communities are those ranked S1, S2 or S3 by the NHIC. AOC applied to:</p> <ul style="list-style-type: none"> Confirmed rare plants and/or rare plant communities; or Areas, as determined by MNR that have high potential to support rare plants and/or rare plant communities. <p>Harvest is permitted within the AOC when snow depths are greater or equal to 40 cm. Snow depth is determined by MNR based on readings from the Arbor Vitae Snow Station or can be measured by the Permittee within the AOC. When measured within the AOC, the Permittee must provide snow depth measurements at 4 locations (along with site photos) to MNR. Operations may commence once approved. MNR will advise when snow depth has declined below the parameter above and generally operations will cease. The Permittee may continue operations if the snow depth within the AOC exceeds the depth parameter, and the permittee will provide monitoring details (i.e. pictures / snow measurements) to the MNR.</p> <p>No site preparation or herbicide application are permitted within the AOC, tree planting, direct seeding and natural treatments are allowed. MNR will identify high potential AOC sites and will conduct the surveys of these areas. In cases where a block is required for operations before the survey has been completed, the Permittee may proceed with operations</p>



Activity/Concern	Mitigation Measures
	<p>following snow parameters described, or conduct a survey, at their cost. The surveys must conform to the following:</p> <ul style="list-style-type: none"> ○ The survey must be completed by an individual who has demonstrated experience in identifying S1 to S3 Provincially rare plant species and any plant designated as threatened or endangered under the ESA. Note: The Controlled Intuitive Survey is the preferred method see - "Survey Protocols for Survey & Manage of Strategy 2: Vascular Plants, (Whiteaker et al. 1998)". Other survey methods may be used provided that the same general approach as outlined in the Controlled Intuitive Survey method is followed. <p>Only surveys conducted during the most appropriate time of year for identifying the majority of rare plant species, and by experienced individual, will be accepted. The survey results are presented to MNR in a report and include:</p> <ul style="list-style-type: none"> ○ Digital locations of rare plants/communities using UTM co-ordinates (15 NAD 83 points or polygons as appropriate) and visually displayed on block maps; ○ A digital file (track log) illustrating the area surveyed within in the AOC; and ○ Once a survey is complete, MNR will review and adjust AOC boundaries accordingly. <p>When rare plant communities have high potential to be expected:</p> <ul style="list-style-type: none"> ○ AOC is applied to the entire harvest block; ○ One new operational road (winter road only) is permitted to cross the AOC; and ○ Landings are not permitted within the AOC, unless discussed with MNR in advance. A limited number of landings may be allowed. <p>When an AOC is applied to a portion of the harvest block:</p> <ul style="list-style-type: none"> ○ No operational roads are permitted, unless there is no practical or feasible alternative (i.e. adverse terrain prohibits road construction) then one new operational road (winter road only) is permitted to cross the AOC; and ○ Landings are not permitted. <p>When site specific rare plant locations are verified by a field survey:</p>



Activity/Concern	Mitigation Measures
	<ul style="list-style-type: none"> ○ No operational roads are permitted overlapping the site-specific values identified without prior approval from MNR; ○ Landings are not permitted; ○ For existing roads, landings will be considered on a case-by-case basis, in discussion with the MNR; and ○ No aggregate pits permitted within the AOC. <p>5.10.4 Develop a site-specific mitigation plan in consultation with the Owner and appropriate regulatory agencies as required. Mitigations may involve but are not limited to, protection with mats/snow cover, seed collection, transplantation, etc.</p>
<p><i>Undiscovered Rare Plant Features</i></p>	<p>5.10.5 If a previously unidentified rare plant species or community is encountered through the course of construction, the following mitigation will be implemented:</p> <ul style="list-style-type: none"> • Suspend work in the vicinity of the rare plant occurrence or rare vegetation community; • Do not disturb the plant or community and temporarily flag off or fence the area around the location to reduce disturbance as needed; • Document the location, photograph the feature, and report the incidence to the Owner and appropriate regulatory agencies, as needed; and • Suspend activity at that location until the QEP has assessed the feature and determined a site-specific mitigation. <p>5.10.6 If a previously unknown area of importance to affected Indigenous communities (e.g., plant/medicine gathering areas) is identified, mitigation measures will be collaboratively developed with Indigenous monitors to reduce potential impacts.</p> <p>5.10.7 Develop a site-specific mitigation plan in consultation with the Owner and appropriate regulatory agencies as required. Mitigations may involve but are not limited to, localized avoidance through minor feature adjustments, protection with mats/snow cover, seed collection, transplantation, etc.</p>

5.11 MATERIAL STORAGE AND HANDLING PLAN

The following Material Storage and Handling Plan outlines BMPs associated with storage and handling of hazardous materials. BMPs are based on industry best practices and past project experience. A Final Material Storage and Handling Plan will be developed prior to construction. Refer to the Project Access Plan for the location of all storage and laydown area(s) and access to each site, including all air transport and helicopter staging areas(s), as applicable.



Category	Mitigation Measures
<i>Temporary Laydowns</i>	<p>5.11.1 Where reasonably possible, Valard will use existing disturbed sites with appropriate land use designations that are capable of accommodating project requirements.</p> <p>5.11.2 All appropriate permits and authorizations will be obtained prior to use as a temporary laydown site.</p>
<i>Environmentally Sensitive Areas</i>	<p>5.11.3 Surface water intake protection zones will be identified, and protection implemented during construction.</p> <p>5.11.4 Work conducted near Provincially/locally designated Vulnerable Areas (namely Wellhead Protection Areas (WHPA), Intake Protection Zones (IPZ), and Highly Vulnerable Aquifers (HVAs) will be avoided, where possible.</p> <p>5.11.5 Refer to the Vehicle and Equipment Operation, Maintenance and Refuelling Plan (Section 5.12) for requirements associated with vehicle or equipment refuelling in the field.</p>
<i>Transportation, Storage and Handling of Hazardous Material</i>	<p>5.11.6 The transportation, storage and handling of fuel and hazardous materials will comply with all applicable municipal, provincial and federal requirements, acts and regulations.</p> <p>5.11.7 Fuel and hazardous materials will be stored and handled in designated areas with appropriate secondary containment that meet regulatory requirements and are designed to protect the environment and workers from exposure.</p> <p>5.11.8 Hazardous materials will be transported in approved containers in licenced vehicles and stored on level ground in properly contained storage areas.</p> <p>5.11.9 Fuels, lubricants, etc. are to be properly labelled and stored in a designated section of the construction laydown areas. This fuel and lubricant storage area should be placed in the most easily accessible part of the laydown.</p> <p>5.11.10 Fuel storage containers will be inspected regularly to ensure that they do not leak, sealed with a properly fitting cap/lid, and labelled according to the Workplace Hazardous Materials Information System (WHMIS), applicable Fire Code, and <i>Transportation of Dangerous Goods Act</i> (TDGA) and regulation.</p> <p>5.11.11 Above-ground fuel storage tanks will meet the Canadian Council of Ministers of the Environment (CCME) Environmental Code of Practice for Aboveground Storage Tank Systems Containing Petroleum Products, <i>Technical Standards and Safety Act</i>, associated regulations (i.e., O. Reg 217/01) and applicable National Fire Code of Canada. Tanks will be</p>



Category	Mitigation Measures
	<p>protected by concrete jersey barriers, and will be visually inspected on a regular basis, as per regulatory requirements and Valard's EMS.</p> <p>5.11.12 Automatic shut-off nozzles must be used when dispensing fuel and conform to the CAN/ULC-S620M Standard. When not in use, nozzles must have drip containment (secondary containment).</p> <p>5.11.13 Spill kits and other emergency response equipment are to be kept near the fuel/lubricant storage area. All vehicles will be equipped with spill kits. (Refer to Spill and Emergency Preparedness and Response Plan, Section 5.14 for further details).</p> <p>5.11.14 Spill cleanup equipment will be maintained and be readily accessible at all times during construction activities.</p> <p>5.11.15 Refer to the Vehicle and Equipment Operation, Maintenance and Refuelling Plan (Section 5.12) for requirements associated with vehicle or equipment refuelling in the field.</p> <p>5.11.16 Dumping of oil or other deleterious materials on the ground or in any watercourse is strictly prohibited.</p> <p>5.11.17 Fuel transport to laydown areas, camps and re-fueling sites will be by licensed carriers, using approved containers, drums and fuel tankers, following all relevant safety regulations and carrying appropriate spill response kits.</p> <p>5.11.18 Mobile double walled fuel tank systems (e.g., tidy tanks) will be used to minimize the potential for accidental spills.</p> <p>5.11.19 Small mobile equipment and hydrocarbon storage containers greater than 23 L will have secondary containment (110% of volume stored), such as polyethylene containment tubs.</p> <p>5.11.20 Containers greater than 23 L (including fuel drums) will be transported upright and secure to prevent shifting or toppling.</p> <p>5.11.21 For hazardous waste storage, handling and transport, refer to the Waste Management and Disposal Plan (Section 5.13).</p>

5.12 VEHICLE AND EQUIPMENT OPERATION, MAINTENANCE AND REFUELING PLAN

The following Vehicle and Equipment Operation, Maintenance and Refueling Plan outlines BMPs associated with vehicle and equipment operation, maintenance and refueling. BMPs are based on industry best practices and past project experience. A final Vehicle and Equipment Operation, Maintenance and Refueling Plan will be developed prior to construction. Refer to the Material Storage and Handling Plan (Section 5.11) for additional BMPs associated with storage and handling of hazardous materials.



Category	Mitigation Measures
<i>Vehicle and Equipment Operation and Maintenance</i>	<p>5.12.1 All equipment will arrive on-site and be maintained in good operating condition: clean of oil, grease, excess sod/mud, plant debris and/or other potential contaminants.</p> <p>5.12.2 All hydraulic systems, fuel systems and lubricating systems are regularly maintained in good repair and regular equipment inspections will be completed to ensure preventative maintenance, early identification of potential leaks, and maintain fuel efficiency.</p> <p>5.12.3 All equipment and vehicles will adhere to the <i>Clean Equipment Protocol for Industry</i> (Ontario Invasive Species Council, 2016) and requirements outlined in the Invasive Species Biosecurity Management Plan (Section 5.7).</p> <p>5.12.4 Refer to the Spill and Emergency Preparedness and Response Plan (Section 5.14) for additional spill prevention measures associated with vehicle and equipment operation and maintenance.</p>
<i>Vehicle and Equipment Refueling</i>	<p>5.12.5 Vehicle and equipment refuelling are to be controlled to prevent any inadvertent discharge of petroleum products.</p> <p>5.12.6 The driver/attendant shall be present at all times during refueling operations; spill kits/drip pads and fire extinguishers shall be maintained at major refueling sites.</p> <p>5.12.7 Vehicle and equipment refuelling in the field must have appropriate fuel containment supplies on site in accordance with the spill response plan. Designated refuelling locations, including fuel storage, must be greater than 120 m of any watercourse or wetland. If refueling of equipment within wetlands is necessary due to logistical constraints, additional mitigation measures will be implemented (e.g., two-man refueling monitoring, spill trays, etc.).</p> <p>5.12.8 Refueling of vehicles and/or large mobile equipment will not occur near sensitive receptors (e.g., watercourses, wetlands, wildlife features) to avoid damage resulting from potential spills. Refueling of small equipment in wetlands will be avoided to the extent reasonably possible. If refueling of small equipment (e.g., chainsaws, generators, light plants, etc.) within wetlands is necessary due to logistical constraints, additional mitigation measures will be implemented (e.g., two-man refueling monitoring, spill tray placed under the fuel nozzle, on hand spill kit/pad materials). Under no circumstance will refueling occur where flowing or standing water is present.</p> <p>5.12.9 Refuelling of small equipment (e.g., chain saws, portable generators) should be conducted over a portable containment unit. Spill trays should also be used when transferring liquid/fuels between containers.</p>



Category	Mitigation Measures
	<p>5.12.10 Spill kits and other emergency response equipment are to be kept near the fuel/lubricant storage area. All vehicles will be equipped with spill kits.</p> <p>5.12.11 Refer to Material Storage and Handling Plan, Section 5.11 and to the Spill and Emergency Preparedness and Response Plan (Section 5.14) for further details.</p>
<i>Storage and Handling of Hazardous Material</i>	<p>5.12.12 Fuels, lubricants, etc. are to be properly labelled and stored in a designated section of the construction laydown areas. This fuel and lubricant storage area should be placed in the most easily accessible part of the laydown.</p> <p>5.12.13 Above-ground fuel storage tanks will meet the Canadian Council of Ministers of the Environment (CCME) Environmental Code of Practice for Aboveground Storage Tank Systems Containing Petroleum Products, <i>Technical Standards and Safety Act</i>, associated regulations (i.e., O. Reg 217/01) and applicable National Fire Code of Canada. Tanks will be protected by concrete jersey barriers, and will be visually inspected on a regular basis, as per regulatory requirements and Valard's EMS.</p> <p>5.12.14 Refer to Material Storage and Handling Plan (Section 5.11) for further requirements associated with fuel storage.</p> <p>5.12.15 For hazardous waste storage, handling and transport, refer to the Waste Management and Disposal Plan (Section 5.13).</p>

5.13 WASTE MANAGEMENT AND DISPOSAL PLAN

The following Waste Management and Disposal Plan outlines waste management procedures to be implemented for the Project during construction. This plan includes management of hazardous wastes and non-hazardous wastes and is based on industry standard best practices, and past project experience. The final Waste Management and Disposal Plan will incorporate any additional Project or regulatory requirements.

Waste management will be conducted in accordance with the guidelines outlined below.

Category	Waste Management Guidelines
<i>All waste</i>	<p>5.13.1 All Project sites will be kept neat and clean at all times.</p> <p>5.13.2 Littering of any kind will not be permitted anywhere within the Project area at any time. Should litter of any kind be observed on the ground, persons accessing the project area are responsible for clean-up and proper disposal.</p> <p>5.13.3 Dumping or burying of garbage, construction wastes, food wrappings, bottles/cans, sanitary wastes or other materials is strictly prohibited.</p>



Category	Waste Management Guidelines
	<p>5.13.4 Project wastes will be stored and/or removed from all wetland areas immediately.</p> <p>5.13.5 Personnel will be aware of Project waste management strategies via environmental orientation and adhere to site requirements.</p> <p>5.13.6 Wastes will be categorized and segregated on-site for disposal as follows:</p> <ul style="list-style-type: none"> • Non-hazardous waste — examples include: <ul style="list-style-type: none"> ○ Construction materials (e.g., cured concrete, wood, etc.) ○ Recyclable wastes (e.g., metals, plastics, etc.) ○ Domestic solid waste (e.g., non-recyclable waste, food waste) ○ Sanitary and liquid waste • Hazardous waste — examples include: <ul style="list-style-type: none"> ○ Petroleum products (e.g., fuels, solvents, coolants, contaminated, soils, waste oil, oily rags, filters, etc.) ○ Designated substances (e.g., asbestos, arsenic, lead, silica, etc.). If the Project requires demolition, refer to 5.13.37-5.13.41 for information on designated substances prior to work. <p>5.13.7 Waste will be clearly sorted, stored temporarily, and disposed at an approved landfill site or other approved facility, according to the type of material, by an appropriately licensed carrier, transport and disposal documentation shall be maintained where applicable.</p> <p>5.13.8 Inert waste (e.g., scrap steel, wood) may be temporarily stored in a designated staging area until disposal to an approved recycling or waste management facility occurs.</p> <p>5.13.9 Work sites and/or material yards will have designated areas for waste segregation and recycling, with appropriate containers for each type of waste. Stored waste materials will be transferred regularly to regional disposal, recycling or scrap metal facilities with backhauls or as required, either by a local waste management contractor or appropriately trained/certified Valard personnel.</p> <p>5.13.10 Solid waste handling and storage facilities at temporary construction camps will be a minimum of 30 m from waterbodies and provided with drainage controls.</p> <p>5.13.11 Solid waste to be managed and disposed of in compliance with O. Reg. 347 (as amended).</p> <p>5.13.12 Use a licenced waste carrier and waste receiver to transport and dispose of Project-generated waste according to type and regulations.</p>
<i>Excess Soils</i>	<p>5.13.13 If excess soil is produced (i.e., soil that will be removed from the project), materials will be managed in accordance with Ontario provincial and</p>



Category	Waste Management Guidelines
	municipal requirements. Refer to the Soil Management Plan (Section 5.4) for additional information.
<i>Slurry</i>	<p>5.13.14 Slurry produced during construction (e.g., hydrovac operations) must be managed in compliance with Project and regulatory requirements. Contact Valard Environment prior to planned disposal to confirm management options:</p> <ul style="list-style-type: none"> • Offsite: Slurry must be transported and disposed of in compliance with O. Reg 406/19 (as amended) as liquid waste. • Onsite: If slurry is intended to be managed onsite, a drying pad is required consistent with the Hydro One design standard. Dried slurry from the pad must be managed in compliance with Project and regulatory requirements.
Non-hazardous Waste	
<i>Construction Waste</i> (e.g., cured concrete, wood, rubble, plastic, scrap metal, etc.)	<p>5.13.15 Surplus hardened concrete or wood waste will be stored in the temporary on-site waste storage area/transfer site and be transported by licenced waste hauler to nearest landfill or recycling facility, as appropriate.</p> <p>5.13.16 Metal waste will be recycled as applicable. All disposal documentation/manifests will be retained.</p> <p>5.13.17 Wash water from cleaning concrete mixing equipment and delivery systems, as well as from vehicles and equipment, will be collected in designated wash-out sites, located at least 30 m from a water body. The wash-out site will be monitored regularly to verify that runoff from the area does not report to a waterbody. Following the construction phase, all temporary wash-out sites will be capped with local backfill and re-graded prior to construction crews departing the site.</p>
<i>Non-hazardous solid waste</i> (e.g., organic solid waste)	<p>5.13.18 Storage in wildlife-proof containers and taken off-site to be disposed at the local landfill; maintain disposal documentation/tipping receipts.</p>
<i>Sanitary waste/sewage, grey water</i>	<p>5.13.19 Sanitary waste and grey water from construction camps and portable sanitation facilities will be held and discharged according to required permits and authorizations for construction and operation of grey water treatment. Refer to the Project Permitting and Approvals Plan for further details pertaining applicable permits and approvals.</p>



Category	Waste Management Guidelines
	<p>5.13.20 Liquid (if onsite discharge is not possible) and solid sewage waste held in portable tanks will be removed by a licensed contractor and taken to a licensed or approved disposal area.</p> <p>5.13.21 In the event of a major sewage leak or spill, the Spill and Emergency Preparedness and Response Plan (Section 5.14) will be implemented.</p>
Hazardous Waste	
<i>Storage, Handling, and Transport</i>	<p>5.13.22 Valard is responsible for handling and temporary storage of hazardous waste on the Project. Hydro One is responsible for transportation and disposal of hazardous waste. Valard will coordinate with Hydro One for hazardous waste management to ensure project and regulatory requirements are met.</p> <p>5.13.23 Valard will obtain a Waste Generator number from Hydro One as required under O. Reg. 347 (as amended) of the Environmental Protection Act when hazardous wastes are generated during construction.</p> <p>5.13.24 In the event an unanticipated hazardous waste is encountered, Hydro One will be notified and sampling will be completed by Valard as required to verify the waste prior to transport and disposal.</p> <p>5.13.25 Personnel responsible for handling hazardous wastes will be appropriately trained in spill avoidance, clean up and reporting procedures. Personnel will have WHMIS training, as required and may be further trained in appropriate transport, handling and storage of 'Dangerous Goods' and 'Controlled Products' used on site (i.e., TDGA). Training will include best practices to avoid negatively affecting wildlife and fish and fish habitat associated with introducing hazardous materials into the environment.</p> <p>5.13.26 On-site storage of hazardous waste will be in designated locations and ensure non-compatible products are segregated to optimize control. Storage areas will be:</p> <ul style="list-style-type: none"> • Located on level ground and a minimum of 30 m from streams and other ESFs; and • Marked/signed to ensure proper segregation. <p>5.13.27 A list of hazardous materials and Materials Safety Data Sheets (MSDS) for these products will be maintained by the on-site Safety Coordinator and available to personnel on-site.</p> <p>5.13.28 Containers used to temporarily store hazardous waste products will meet the following criteria:</p> <ul style="list-style-type: none"> • Be consistent with and/or provided by the licensed carrier (e.g., container type, size, etc.); • In good condition with no visible defects that could result in leaking or



Category	Waste Management Guidelines
	<p>spilling of by-products;</p> <ul style="list-style-type: none"> • Leak-resistant/seal appropriately depending on the product; • Be kept upright and closed at all times unless adding or removing contents; and • Clearly labeled containers based on: <p>Hazardous product (e.g., used oil);</p> <ul style="list-style-type: none"> ○ Type of hazard (e.g., toxic, ignitable); and ○ Once filled, the date the container was placed in the storage area. <p>5.13.29 Spill Response kits will be provided at hazardous material storage and handling locations.</p> <p>5.13.30 Documentation (e.g., waste manifests) shall be maintained per the requirements under O. Reg. 347 (as amended) under the Environmental Protection Act and in compliance with the TDGA.</p> <p>5.13.31 Hazardous waste will be transported by a licensed waste carrier with an Environmental Compliance Approval as applicable under O. Reg. 347 (as amended) of the Environmental Protection Act and in compliance with the Transportation of Dangerous Goods Act (TDGA).</p> <p>5.13.32 Transported hazardous waste will be received by a licenced waste receiver as applicable under O. Reg. 347 (as amended) of the Environmental Protection Act.</p> <p>5.13.33 Polychlorinated biphenyl (PCB) may still be encountered in the form of PCB-containing oil in cables, storage containers, equipment, pipelines or soil. While electrical equipment containing PCB oil was retrofitted, oil containing 2 to 50 ppm PCB may still exist in certain oil-filled electrical equipment. Handling and storage of any oil-filled equipment or oil from electrical equipment should be assumed to contain PCB until confirmed otherwise by available reports or testing.</p>
<p><i>Contaminated Soils, Materials</i></p>	<p>5.13.34 If contaminated soils are encountered, excavated or suspected during construction based on observations of visual staining, odours or other methods, the measures provided in the Spill and Emergency Preparedness and Response Plan will be implemented (Section 5.14).</p> <p>5.13.35 If excess soil is produced (i.e., soil that will be removed from the project), materials will be managed in accordance with Ontario provincial and municipal requirements. Refer to the Soil Management Plan (Section 5.4) for additional information.</p> <p>5.13.36 Valard will follow site-specific guidance/direction provided by a Valard QP as defined per O. Reg. 153/04 and the Owner.</p>



Category	Waste Management Guidelines
<i>Designated Substances</i>	<p>5.13.37 Ensure Designated Substances under O. Reg. 490/09 (as amended) and O. Reg 278/05 (as amended) of the Occupational Health and Safety Act have been identified prior to any building demolition. Designated substances include:</p> <ul style="list-style-type: none"> • Acrylonitrile • Arsenic • Asbestos • Benzene • Coke oven emissions • Ethylene oxide • Isocyanates • Lead • Mercury • Silica • Vinyl chloride <p>5.13.38 Notify Hydro One of any planned work that may encounter designated substances and hazardous materials.</p> <p>5.13.39 Review the available summary reports and other documentation (e.g., a designated substance survey, soil analytics, etc.) from Hydro One and ensure compliance with applicable regulations.</p> <p>5.13.40 Ensure that the Hydro One Environmental Planner is made aware of any matters related to designated substances and hazardous materials.</p> <p>5.13.41 Refer to the Project Specific Health and Safety Plan for additional information on Designated Substances.</p>

5.14 SPILL AND EMERGENCY PREPAREDNESS AND RESPONSE PLAN

The goal of spill prevention and response is to keep hydrocarbons and other toxic substances from leaching into soils and groundwater or entering waterbodies, watercourses or wetlands. Primary environmental risks associated with spills include contamination of soil and/or water resources with potential long terms impacts to agriculture, drinking water supply, aquatic habitats, fisheries, wildlife or other natural resources.

Spill Prevention

Valard is committed to ensuring appropriate environmental management measures for project work. Valard's Environmental policy, as outlined in the EMS, provides the direction for spill prevention and response. Preventing the release of contaminants into the environment is achieved through the following means:

- Compliance with all government legislation;
- Safety and Environment Hazard Awareness Training (Field Level Hazard Assessments (FLHA)/tailboards, JHAs, etc.);



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- Preventative maintenance and inspections of vehicles and equipment (including fuel tanks);
- Posted Spill Response Plans;
- Emergency Response Training; and
- Immediate action when a release occurs.

Work conducted near Provincially/locally designated Vulnerable Areas (namely Wellhead Protection Areas (WHPAs), Intake Protection Zones (IPZ), and Highly Vulnerable Aquifers (HVA's)) will be avoided, where possible.

In addition, Valard shall employ the following BMPs to minimize the potential for spills:

Category	Description
<i>Training, Planning and Preparedness</i>	<p>5.14.1 Provide appropriate training regarding safe work practices, FLHA's, emergency response, including the 6 Basic Steps to Spill Response (refer to 5.14.20).</p> <p>5.14.2 A Project Response Plan and spill clean up equipment will be maintained and readily accessible at all times during construction and maintenance activities.</p> <p>5.14.3 Surface water intake protection zones will be identified, and protection implemented during construction as required.</p> <p>5.14.4 Ensure that spill kits of appropriate size and content based on factors such as contaminants present, surrounding environment, etc. are available at all times and located within 300 m of the areas where a spill could occur; small kits shall be available in all mobile equipment.</p>
<i>Storage, Handling, and Transportation of Hazardous Substances</i>	<p>5.14.5 Store all hazardous liquids according to applicable guidelines and regulations.</p> <p>5.14.6 Fuels, chemicals, lubricants or other deleterious substances will be stored on level ground in properly contained storage areas.</p> <p>5.14.7 Refueling of vehicles and/or large mobile equipment will not occur near sensitive receptors (e.g., watercourses, wetlands, wildlife features) to avoid damage resulting from potential spills. Refueling of small equipment in wetlands will be avoided to the extent reasonably possible. If refueling of small equipment (e.g., chainsaws, generators, light plants, etc.) within wetlands is necessary due to logistical constraints, additional mitigation measures will be implemented (e.g., two-man refueling monitoring, spill tray placed under the fuel nozzle, on hand spill kit/pad materials). Under no circumstance will refueling occur where flowing or standing water is present.</p> <p>5.14.8 Refer to Material Handling and Storage Plan (Section 5.11) and the Vehicle and Equipment Operation, Maintenance and Refueling Plan (Section 5.12) for further details.</p>



Category	Description
<i>Equipment</i>	<p>5.14.9 All equipment will arrive on-site and be maintained in good operating condition: clean of oil, grease, excess sod/mud, plant debris and/or other potential contaminants.</p> <p>5.14.10 All hydraulic systems, fuel systems and lubricating systems are regularly maintained in good repair.</p> <p>5.14.11 Equipment shall be inspected before starting work for any leaks or excess oil and grease.</p> <p>5.14.12 Ensure that areas or equipment that present risk of leaks or spill be protected using appropriate methods (e.g., spill containment systems for oils, fuels and chemical storage and transfer areas, and spill containment systems under stationary equipment such as generators, pumps and compressors).</p> <p>5.14.13 Regular equipment inspections will be completed to ensure preventative maintenance and early identification of potential leaks.</p> <p>5.14.14 Leaking equipment should stop working immediately, and spill response material shall be used to slow the flow and absorb the leaked fluid. The equipment should be relocated away from any waterbodies or sensitive sites, provided that moving the equipment does not increase the risk of environmental contamination.</p> <p>5.14.15 All trucks and equipment will carry a small quantity of hydrocarbon soaker-pads for quick access.</p> <p>5.14.16 Use spill trays for small equipment and when transferring liquids/fuels between containers.</p> <p>5.14.17 Fuelling of vehicles/equipment will occur utilizing an emergency spill tray to capture any accidental release of fluids, as required (Refer to Vehicle and Equipment Operation, Maintenance and Refueling Plan (Section 5.12) for further details on refueling).</p> <p>5.14.18 Ensure adequate spill response materials and equipment are available for use and that contents are replaced after use.</p> <p>5.14.19 Material, equipment or vehicles are stored or parked in appropriate/designated areas.</p>

Emergency Spill Response

The release of contaminants may happen as a result of equipment malfunctions, human error or accidental spills. In the event of a release to the Environment, Valard will respond by:

- Ensuring the safety and health of its employees, subcontractors and the public;
- Mobilizing the necessary crews and equipment to contain and clean up the contaminant to protect the



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environment as soon as possible;

- Reporting the release of the contaminant to the appropriate contacts (e.g., Hydro One Site Inspector, Project Manager, Environmental Planner, envincidents@valard.com) and/or government agencies immediately as applicable; and
- Completing internal incident reporting (Environmental Incident Notification (EIN) and Environmental Incident Report (EIR) Form) and external release reporting, as required, as per Valard's EMS.

Valard's Emergency Spill Response Procedure is as follows:

Activity	Mitigation Measures
<i>Initial Response</i>	<p>5.14.20 In the event of a spill, the First person on the scene will follow the 6 basic steps of Spill Response:</p> <ol style="list-style-type: none">1. Be Safe – Assess the Risk:<ul style="list-style-type: none">• Never rush in• Warn others in the area• If safe to do so, identify product and select appropriate PPE using SDS• Eliminate all sources of ignition• Stay upwind of vapours2. Call for Assistance:<ul style="list-style-type: none">• Call co-worker/supervisor/safety department or environmental manager for help3. Stop the Flow:<ul style="list-style-type: none">• If safe to do so, set containers upright• Close valves, shut off pumps, plug leaks• Place contents of a leaking container into a secure container4. Contain the Spill:<ul style="list-style-type: none">• Block drains, scuppers, and other escape points• Contain spill with sorbents, earth, or other non-combustible materials• Do not use detergents to disperse oil products5. Clean up:<ul style="list-style-type: none">• Collect all used sorbent material using clean non-sparking tools• Place all waste materials in labeled, sealed containers or plastic bags• Use appropriate waste contractor for disposal6. Report:<ul style="list-style-type: none">• Report details of the spill verbally to a supervisor or Environmental Representative ASAP• Complete Incident Reporting as required• Determine the requirement for internal or external reporting based on the



Activity	Mitigation Measures
	nature and details of the release
<i>Spill Containment and Clean up Procedures</i>	<p>5.14.21 Spill containment will depend on the physical and chemical properties of the substance listed on the Safety Data Sheets (SDS):</p> <ul style="list-style-type: none"> • If solid, cover material with plastic; if liquid contain the spill using booms or other materials designed for this purpose. • Isolate/block drainages without increasing environmental impact. • Notify downstream water users if appropriate. • Clean up and recover material using protective gear. Material recovery may utilize pumps or sorbents as appropriate for type of spill. • Implement environmental monitoring of downstream waters, if applicable. • Store/transport recovered material and review the mode of disposal. <p>5.14.22 Any necessary resources, including equipment, will be mobilized utilized as required.</p> <p>5.14.23 Plastic bags will be contained in the spill kit for clean-up and temporary storage of soiled material.</p> <p>5.14.24 Storage and transport of hazardous materials will be in accordance with applicable legislation and regulations, as per the Waste Management and Disposal Plan (Section 5.13).</p> <p>5.14.25 Contents of a spill kit must be replenished immediately following use.</p>
<i>Disposal of Contaminated Material</i>	<p>5.14.26 Valard shall clean up spills, dispose of waste material (i.e. used spill response material and/or contaminated soils) at an approved disposal site and restore the area to the satisfaction of the Owner and regulatory agencies.</p> <p>5.14.27 If excavated material is contaminated, Valard will follow site-specific guidance/direction provided by the Owner, under the supervision of a Valard QP as defined per O. Reg. 153/04.</p>
<i>Spill Communication and Reporting</i>	<p>5.14.28 Valard will follow internal and external incident reporting protocols for all spills, as per Valard EMS.</p> <p>5.14.29 The person reporting the spill will provide a verbal report to Valard Environment who will initiate the Environmental Incident Notification (EIN) and Environmental Incident Report (EIR) including the items listed below:</p> <ul style="list-style-type: none"> • Reporter's name and telephone number; • Name(s) and telephone number(s) of the person or persons involved in the spill; • Location and time of the spill; • Type and quantity of the substance spilled; • Cause and effect of the spill;



Activity	Mitigation Measures
	<ul style="list-style-type: none"> • Details of action taken or proposed to stop, contain and minimize the effects of the spill; • Description of the spill location and of the area surrounding the spill; • Details of further action contemplated or required; • Names of agencies on the scene; and • Names of other persons or agencies advised concerning the spill. <p>5.14.30 Spills of substances and amounts shown below (Reportable Spill Quantities) or meeting the criteria below must be promptly reported to the Spills Action Centre (SAC) at 1-800-268-6060 (Toll Free), 416-325-3000 or 1-855-889-5775 (TTY), the local Municipalities and affected Indigenous communities in close proximity. A spill must be reported if it:</p> <ul style="list-style-type: none"> • Causes harm or material discomfort to any person; • Injures or damages property or animal life; • Impairs the quality of the natural environment air, water or land; • Causes adverse health effects; • Presents a safety risk; • Renders property, plant or animal life unfit for use; • Leads to the loss of enjoyment of the normal use of property; or • Interferes with the normal conduct of business. <p>5.14.31 If a spill is in fish-bearing water or where potential for harm of fish and fish habitat is likely, the MNR and DFO will be contacted and affected Indigenous communities in close proximity will be notified.</p> <p>5.14.32 If MECP requires additional spill monitoring efforts, affected municipalities and Indigenous communities will be notified.</p>
<i>Reportable Spill Quantities</i>	5.14.33 Reportable spill quantities are as follows:



Activity	Mitigation Measures			
	Table 3. Reportable Spill Quantities			
	Substance	Quantity†	External Reporting Requirements†	Internal Reporting Requirements
	Any Spill	Any amount	Notification to Owner	<div>1. Initial Environmental Incident Notification sent by email (within 24 hours) from Valard Environmental Representative to Owner & Valard distribution lists (all spills);</div> <div>2. Valard Environmental Incident Report (EIR) sent to Owner and: envincidents@valard.com</div>
	Oil and Waste Oil	≥100 litres	Notification to Owner AND Ontario Spills Action Centre 1-800-268-6060 *record file number (Call within 24 hours)	
	Oil with >50 ppm PCB	≥1 kilogram		
	Flammable or Non-Flammable Gas	≥ 10 kilograms		
	Toxic or Corrosive Waste	≥ 5 litres or kilograms		
	Hazardous Waste	≥5 litres or kilograms		
Explosives	Any quantity that could pose a danger to the public or 50 kg			
†Quantities and external reporting requirements will be reviewed and revised prior to construction based on Owner and regulatory requirements.				

5.15 EROSION AND SEDIMENT CONTROL PLAN

The following Erosion and Sediment Control Plan (ESCP) outlines mitigation measures to be implemented during construction, based on industry standard best practices (BMPs), and past project experience. For additional erosion and sediment control mitigation measures please refer to the stand alone ESCP that has been developed by the Valard QEP in consultation with Hydro One.

ESC measures will be installed around work areas where erodible ground is exposed and has the potential to leach into surrounding waterbodies. Erosion and sediment control measures will be appropriate for the site location and ground disturbance. Standard mitigation measures for erosion and sediment control include:

Activity/Concern	Mitigation Measures
<i>Schedule</i>	5.15.1 Schedule construction activities at erosion-prone sites during favourable weather periods and cease construction works during periods of significant or prolonged precipitation when surface runoff from exposed sites cannot be adequately managed or if soils are excessively saturated.



Activity/Concern	Mitigation Measures
	<p>5.15.2 Where practicable, activities with potential to cause rutting, ponding or channelization or erosion will be planned during stable and dry ground conditions.</p>
<i>Planning/design</i>	<p>5.15.3 Areas with high erosion potential will be identified and avoided, where practicable.</p> <p>5.15.4 The creation of new water crossings will be avoided to the extent feasible by using existing access and crossings (e.g., bridges, culverts, etc.). New crossings will be removed upon completion of construction.</p> <p>5.15.5 The appropriate Conservation Authority will be consulted (specifically for ESC measures) during detailed design.</p> <p>5.15.6 Construction access and laydown areas will be restored following completion of construction.</p>
<i>Clearing and Construction</i>	<p>5.15.7 Retain compatible vegetation (e.g., low growing shrubs/vegetation below 2 m in height) where practical on areas prone to wind erosion, drainage ways or adjacent to waterbodies. Restrict grubbing within areas with steep slopes or soils with risk of erosion. Compatible vegetation will be retained around water features (30 m buffer) and other ESAs; where practicable.</p> <p>5.15.8 Vehicles are to remain on designated access routes, and be operated in a responsible, safe and environmentally respectful manner.</p> <p>5.15.9 The use of constructed access (e.g., mats or geotextile/crushed stone) will be utilized and will be monitored to ensure natural drainage patterns and flows maintained (e.g., no surface ponding and/or channelization, etc. leading to additional erosion of soils) to the extent practical.</p> <p>5.15.10 ESC measures (e.g., silt fence) will be installed as necessary to protect, municipal drains, watercourses and agricultural fields.</p> <p>5.15.11 If necessary and ESC measures are not available, erosion resistant fill material may be used below the high-water mark within the floodplain of a waterbody pending MNR authorizations for all work below the high-water mark.</p> <p>5.15.12 Situate temporary construction material stockpiles containing erodible materials at locations where sediment and/or deleterious runoff can be contained and prevented from entering any watercourse/waterbody or wetland (i.e., minimum of 30 m from waterbodies).</p> <p>5.15.13 Control sedimentation by directing sediment laden water to sumps, settling ponds or catchment basins for settlement prior to discharge. Alternately, where appropriate, direct water (using pumps, hoses, etc.) to drain/filter through low gradient, well-vegetated areas away from watercourses. If sedimentation enters a watercourse due to construction activities turbidity</p>



Activity/Concern	Mitigation Measures
	<p>monitoring will occur and results will be compared to the <i>CCME Water Quality Guidelines for the Protection of Aquatic Life</i>.</p> <p>5.15.14 Equipment operation on slopes adjacent to streams will be minimized to the extent practical.</p> <p>5.15.15 Where erosion is of concern, exposed soils in previously vegetated areas will be re-vegetated or have other ESC measures applied as necessary.</p> <p>5.15.16 Site-specific erosion and sediment control plans will be developed, as required, where significant ground disturbance is anticipated near ESA (i.e., wetlands, waterbodies, etc.). The QEP will engage with the Indigenous monitor regarding the effectiveness of the mitigation measure being employed. Typical content of a site-specific mitigation plan includes the following:</p> <ul style="list-style-type: none"> • Site topography and runoff patterns; • Existing vegetation and buffers; • Limits of work-related disturbance or any clearing and grading; • Critical/Sensitive receiving areas; • Location and type of proposed ESC measures; • Proposed site inspection and maintenance routine; and • Shut down plans and/or contingency plan(s) that identifies short term resources (personnel, equipment) to manage and document high run-off events and minimize adverse environmental effects. <p>5.15.17 If excessive rain, wet weather or flood-like conditions occur or are anticipated, or during spring break-up conditions, refer to contingency measures outlined in the Soil Management Plan (Section 5.4).</p>
<p><i>Equipment/ESC Measures and monitoring</i></p>	<p>5.15.18 Incorporate sediment control measures prior to construction activities or immediately after disturbance on site-specific cases throughout the Project to avoid introduction of sediment to the environment, to stabilize drifting soils or loss of topsoil, as practicable. Sediment control measures may include silt fences, filter bags, straw bale fences, berms, ponds and gravel or vegetative filters, check dams, erosion control blankets, etc. Design specifications will be consistent with OPSS 804 and 805.</p> <p>5.15.19 Biodegradable silt fencing is to be used throughout the Project for long term stabilization of soils; synthetic silt fencing material required to be used on the Project will be removed as part of reclamation activities.</p> <p>5.15.20 ESC measures and surface water management may be used to minimize the potential for net changes to infiltration rates.</p>



Activity/Concern	Mitigation Measures
	5.15.21 Monitor sediment and erosion control features in place regularly to ensure they are functional and well maintained. ESC measures will be replaced, repaired and/or supplemented as required. 5.15.22 Monitoring and remedial actions including repairs and replacement will be tracked and reported monthly. 5.15.23 Sediment control methods should remain on-site until all work is completed and/or the site has been stabilized or re-vegetated as required.
<i>Clean up and Reclamation</i>	5.15.24 Re-establish natural drainage patterns as soon as possible following work, do not block or impede natural drainage channels. 5.15.25 Disturbed areas and erodible soils near water features or sensitive environmental areas will be restored as soon as practical.

5.16 BLASTING AND COMMUNICATION MANAGEMENT PLAN

The following Blasting and Communication Management Plan outlines proper storage, security, notification, and detonation requirements needed during construction should blasting be required for structure pad levelling, access, or conductor splicing. This plan is based on industry standard BMPs and past project experience. The final plan, which will incorporate any additional Owner or regulatory requirements, will be developed by a Valard QEP in consultation with the Owner.

Where practicable, ripping or rock hammer will be used as opposed to blasting where rock is encountered to prevent impacts or regulatory non-compliance associated with blasting or explosives use throughout construction.

To prevent impacts or regulatory non-compliances associated with blasting or explosives use throughout construction, Valard will implement the following:

Activity/Concern	Measures
<i>Notification</i>	5.16.1 Provide adequate notice to government agencies, local Police, Municipal Fire Chiefs, Municipalities, affected Indigenous communities, landowners, and other affected parties prior to blasting and implosion operations as appropriate.
<i>Storage, Transportation and Use</i>	5.16.2 Regulatory approval (licence) will be obtained from the Explosives use Regulatory Division (ERD) of Natural Resources Canada under the <i>Explosives Act</i> for storage, or transportation of explosives. 5.16.3 Blasting operations will adhere to applicable permits, regulations, guidelines, and requirements for storage, transportation and use of explosives, including, but not limited to, the following: <ul style="list-style-type: none"> • <i>Explosive Act and Explosives Regulation</i>, and prescribed ERD guideline documents.



Activity/Concern	Measures
	<ul style="list-style-type: none"> • Ontario Provincial Standard Specification 120 General Specification for the use of explosives. • <i>Transportation of Dangerous Goods Act</i>. • Ontario Ministry of Labour's safety regulations per the <i>Occupational Health and Safety Act</i>, including the filing of a notice of Project at least 30 days prior to the start of construction. • NAV Canada's Land Use Assessment Form per the Land Use Program for blasting operations. • Local Municipalities' noise municipal noise control by-laws. Exemptions will be obtained as required. • DFO's Measures to Avoid Causing Harm to Fish and Fish Habitat Including Aquatic Species at Risk and Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters. • <i>Endangered Species Act</i> permit requirements, as directed by MECP, as required. <p>5.16.4 Avoid storing blasting materials and equipment within parks and conservation areas where reasonably possible.</p> <p>5.16.5 Blast patterns designed to limit the total ground disturbance to only the area required for access and construction, as required for structure pad leveling or access development.</p> <p>5.16.6 Blasting delays (staggered detonation) and blast mats will be used to control noise and reduce fly rock associated with blasting activities and the potential for impacts outside of the ROW corridor, as required.</p> <p>5.16.7 Blasting sites will maintain safe distances from other employees, vehicles, equipment, structures, and fire hazard sources. Blasts will be performed during pre-determined times. Blasting work will not occur during electrical storms or adverse weather conditions.</p> <p>5.16.8 Warning signage, notification(s) and standard blasting warning signals will be used to ensure safe blasting operations for the public in accordance with government rules and regulations.</p> <p>5.16.9 Equipment and machinery used on site will be in good operating condition.</p> <p>5.16.10 All blasting material packaging will be disposed of according to regulatory requirements and best management practices.</p>
Security	<p>5.16.11 Blasting operations will adhere to security and screening requirements, as outlined in the <i>Explosive Act</i>, <i>Explosives Regulation</i> and prescribed ERD guideline documents.</p>



Activity/Concern	Measures
	<p>5.16.12 A Security Plan, Fire Protection Plan, and Key Control Plan will be developed and submitted to the ERD, as required, during the permitting process.</p> <p>5.16.13 Local Police and Fire Department will be notified of explosive storage sites and relevant documentation (i.e., Fire Protection Plan and/or Security Plan) will be provided, as required.</p> <p>5.16.14 Storage sites will meet minimum distance requirements, have required warning signage in place, and be checked daily. Security checks will be logged using an i-button, or similar system.</p> <p>5.16.15 Security screening will be obtained by personnel, as required.</p> <p>5.16.16 Any fire, accident, break-in, attempted break-in, theft or other incident will be reported to the Chief Inspector of Explosives and the local Police.</p>
<i>Environmentally Sensitive Areas</i>	<p>5.16.17 Blasting operations will abide by requirements outlined in Storage, Transportation and Use noted above.</p> <p>5.16.18 Mitigative measures will be developed in collaboration with affected Indigenous communities when required to minimize the effects of blasting activities in proximity to areas of importance to affected Indigenous communities, sensitive features and within timing windows.</p>
<i>Waterbodies</i>	<p>5.16.19 Refer to the Fish and Fish Habitat Protection Plan (Section 5.8) for mitigation measures regarding blasting near waterbodies.</p>

5.17 ARCHAEOLOGICAL RESOURCES CONTINGENCY PLAN

The following provides an outline for the Archaeological Resources Contingency Plan, based on industry standard best practices (BMPs) and past project experience. The final plan, which will incorporate any additional Owner or regulatory requirements, will be developed in consultation with the Owner or Owner's Environmental Representative, following award.

The Archaeological Resources Contingency Plan for the Project shall include, at the minimum, the following measures which describe appropriate management and protection of cultural, heritage, archaeological resources that may potentially be identified in the Project area through the studies to support the Environmental Assessment:

- Valard will provide to Hydro One, at a mutually agreed upon timeframe, the locations of all required ancillary infrastructure, including permanent and temporary access, laydown yards, camps, heli-sites, etc., and Project footprint. The Contractor will facilitate the development of an appropriate buffer to ensure minor deviations ancillary infrastructure do trigger unnecessary supplemental assessments.
- The Owner will execute Stage 1 Archaeological Assessments (AA) for all areas identified by the Contractor and complete all Stage 2 AA, and if required, Stage 3 and/or 4 AAs.



- Following the evaluation of potential archaeological resources the Owner will provide completed AA reports to Contractor and reflect key findings in Environmental Requirements document including maps with all areas of impacts identified. The Owner will advise the Contractor of required mitigations (e.g., monitoring), which will be implemented as required.
- Designated areas within and adjacent to the Project footprint will be surveyed and marked prior to construction to ensure sites are not inadvertently disturbed.
- Similarly, built cultural heritage resources identified through the Owner's Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment will be surveyed and marked by the Owner when designated areas are within and adjacent to the Project footprint prior to construction to ensure sites are not inadvertently disturbed. The Owner will advise the Contractor of required mitigations (e.g., monitoring), which will be implemented as required.
- As per Valard's EMS, Project personnel will be made aware through weekly meetings or tailboards, when working near identified potential built cultural heritage or archaeological resources and respect flagging and setback zones.
- Training will be provided to facilitate the identification of unexpected archaeological resources and procedures for reporting. The collection of archaeological resources by project personnel is prohibited.
- The contractor will inform the Owner of any deviations from areas of impact assessed in the executed AAs.

Chance Find Procedures

Potential archaeological or heritage resources should be suspected when the following are discovered:

- Artifacts of stone or other material, including single or scattered artifacts;
- Old-looking pits in the ground (large or small, circular or rectangular);
- Cabins and other old-looking structures;
- Old industrial, ranching, and other remains of possible heritage significance;
- Culturally Modified Trees (CMTs) – mature trees with well-defined bark scars; or
- Trails, burial sites, fire pits, hearths.

The procedures below should be followed if project activities inadvertently uncover what are believed to be human remains, artifacts, or other heritage resources. If a person comes across such evidence, the person should:

- Immediately stop work. Do not allow work to resume until permission is granted by Hydro One who will engage Indigenous communities and their elders to obtain direction;
- Do not move or otherwise disturb the artifacts or other remains present;
- Stake or flag off affected location with an appropriate buffer to prevent additional disturbances;
- As soon as possible, notify the Construction Manager or Field Supervisor and Owner's Representative.
- Following engagement with the affected Indigenous communities and their elders, Hydro One will bring in a licenced archaeologist. The licenced archaeologist will develop appropriate mitigation measures including engagement with Hydro One, affected Indigenous communities, their elders and stakeholders and if necessary, the appropriate regulatory agencies. Ongoing engagement will continue to be offered to affected communities and apply protocols identified by Indigenous communities for land access and treatment of findings.
- Where human remains are encountered, cease all activities immediately and notify the police or coroner to



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determine if the remains are archaeological. If human remains are associated with archaeological resources, the Ministry of Citizenship and Multiculturalism should be notified to ensure that the archaeological site is not subject to unlicensed alterations in contravention of the Ontario Heritage Act. Once confirmed the Owner's Representative will notify the archaeology specialist/branch, contact the First Nations with an interest in the area, and engage a heritage consultant. The archaeology specialist will recommend follow-up actions in consultation with the Owner's Representative and First Nations;

- Report findings or incidents involving archaeological or heritage site disturbance on the Valard EIR and collect the following data:
 - Description and GPS location of chance find;
 - Sketch of site layout (with appropriate measurements to nearest structure/landmark if possible);
 - Identification of the site location;
 - Date, time and activity being conducted at the time of the discovery;
 - Names of individual(s) who made the discovery (including titles and organizations if appropriate);
 - Photographs (3-5) of the site/objects; and
 - Comments on the nature of the artifacts/site.

As above, no work will resume within the immediate area of the discovery site until direction from the archaeology specialist is provided; and, immediate mitigation measures will be employed to protect discoveries, such as revising short-term work plans, flagging the site boundaries with a larger buffer zone to prevent further disturbance until direction from the archaeology specialist is received. Valard shall abide by and implement the mitigation measures as required.

5.18 FIRE PREVENTION PLAN

To manage the risk of forest fires, a Fire Prevention Plan has been developed. To support burning and industrial operations, a full Fire Prevention and Preparedness Plan will be developed under separate cover as required to comply with MNR Industrial Operations Protocol.

The proposed work involves industrial activity with low to medium fire risk, especially during dry summer conditions. Industrial hazards associated with this construction project may include:

- Use of welding, cutting, gas burning or cutting tools;
- Brushing and/or grinding logs, stumps, and woody debris;
- Burning of slash and woody debris; and
- Refueling equipment and gasoline and diesel storage.

The following mitigations will be implemented:

Activity/Concern	Mitigation Measures
<i>Monitoring</i>	5.18.1 A fire watch and/or reduced hours of work will be implemented as required.
<i>Housekeeping</i>	5.18.2 Maintain construction equipment in good working condition and equip exhaust and engine systems with spark arrestors.



Activity/Concern	Mitigation Measures
	<p>5.18.3 Maintain construction equipment free of the accumulation of flammable material.</p> <p>5.18.4 Keep worksite free of debris and combustible materials.</p> <p>5.18.5 Project personnel will dispose of cigarette butts, welding rods, and other hot or burning items appropriately to reduce fire hazard.</p>
<i>Fire Hazards</i>	<p>5.18.6 If the fire hazard is high, implement appropriate protection measures (e.g., use of fire-resistant mats or wetting down the area prior to work commencing, etc.).</p> <p>5.18.7 Maintain an adequate supply of fire-fighting equipment on hand as regulated by provincial regulations and government agencies.</p> <p>5.18.8 Each vehicle will carry the fire-fighting equipment (e.g., fully charged fire extinguisher, shovel) required by the <i>Fire Protection and Prevention Act</i>.</p> <p>5.18.9 Do not allow smoking near any flammable storage facility.</p> <p>5.18.10 Turn-off engines prior to refueling of equipment.</p> <p>5.18.11 Transportation, storage, and handling of flammable materials (e.g., fuel) will be follow the protocols outlined in the Spill and Emergency Preparedness and Response Plan (Section 5.14), the Materials Storage and Handling Plan (Section 5.11), Vehicle and Equipment Operation, Maintenance and Refueling Plan (Section 5.12) and will comply with applicable legislation (e.g. <i>Technical Standards and Safety Act</i>, <i>Transportation of Dangerous Good Act</i>, <i>the National Fire Code</i>, <i>Explosives Act</i>, <i>Occupational Health and Safety Act (Government of Ontario)</i>, etc.).</p>

5.19 GROUNDWATER DEWATERING AND DISCHARGE PLAN

Dewatering activities may occur when surface or groundwater accumulates into a work site (i.e. water accumulation in excavations holes for foundations, etc.) and requires pumping and discharge. The following Groundwater Dewatering and Discharge Plan outlines management strategies and mitigation measures to be undertaken to minimize potential negative effects as a result of construction site dewatering and discharge activities. This plan is based on industry BMPs, and past project experience. The final plan will incorporate any additional Project or regulatory requirements and will be developed by Valard in consultation with the Owner prior to construction.

Groundwater dewatering and discharge management strategies and mitigation to be implemented include:



Activity/Concern	Mitigation Measures
<i>Identification Source Water Protection Areas/Vulnerable Areas/Water Wells</i>	<p>5.19.1 Review Provincial and Municipal databases to identify Provincially/locally designated Vulnerable Areas (e.g., Well Head Protection Areas [WHPAs]; Intake Protection Zones [IPZs]; and Highly Vulnerable Aquifers [HVAs]) and Significant Groundwater Recharge Areas within the vicinity of the Project. Plan activities in accordance with local restrictions in proximity to these sites.</p> <p>5.19.2 Review MECP Permit to Take Water database to identify private wells and water taking activities in the vicinity of the Project.</p>
<i>Interface with Source Water Protection Areas/Vulnerable Areas/Water Wells</i>	<p>5.19.3 Avoid excavation within IPZs, WHPAs and Significant Groundwater Recharge Areas where possible.</p> <p>5.19.4 Where avoidance of vulnerable areas is not possible implement additional mitigation identified by the Owner through consultation with applicable Conservation Authorities, municipalities, etc. This may include but is not limited monitoring of quality and quantity of dewatering, limiting of blasting, micro-site adjustments of structure locations, etc.</p> <p>5.19.5 Complete residential groundwater testing when installing pile foundations within 200 m of private wells.</p> <p>5.19.6 Avoid excavation within 100 m of private wells.</p> <p>5.19.7 Avoid blasting within 50 m of private wells.</p> <p>5.19.8 Locate large areas of hardened surfaces, such as construction camps and laydown yards, outside of designated significant groundwater recharge areas to the extent practical.</p> <p>5.19.9 Multistage drainage and sediment controls to collect and treat stormwater runoff will be implemented where there is an immediate risk to adjacent waterways because of hardened surfaces.</p> <p>5.19.10 If avoidance of wells is not possible, conduct a pre-construction survey/ground water testing prior to excavating.</p>
<i>Regulatory Approval</i>	<p>5.19.11 Dewatering activities will comply with O. Reg 387/04 as amended by O. Reg. 64/16 and/or O. Reg. 63/16 under the Ontario Water Resources Act and will be conducted under a Permit to Take Water (PTTW) or registration under the Environmental Activity and Sector Registry (EASR), pending eligibility (e.g., daily volume requirements, within a WHPA, etc.).</p> <p>5.19.12 Applications for MECP approvals for water takings and associated monitoring/reporting requirements will include a quantitative assessment of the physical and chemical characteristics of ground water, including changes over time, where applicable.</p>



Activity/Concern	Mitigation Measures
	<p>5.19.13 Water for work sites (ice roads, snow making, concrete, etc.) will be sourced from local water sources Under a Permit to Take Water (PTTW) where applicable.</p> <p>5.19.14 As required a QP (as defined per O. Reg. 153/04) will be retained to prepare supporting applications including Water Taking Plan and Discharge Plan.</p> <p>5.19.15 Where discharge is required on private land the landowner will be notified.</p> <p>5.19.16 Appropriate regulatory approvals will be obtained for camp operations, as required, for sewage, water supply and solid waste disposal. Where possible, Municipal services will be utilized. Where not possible, installation, maintenance, monitoring and decommissioning of systems will be in accordance with regulatory approvals.</p> <p>5.19.17 Applications for Environmental Compliance Approvals (ECA) for Sewage Works associated with temporary construction camps will reference Guideline B-7 Incorporation of the reasonable use concept into MOEE groundwater management activities, and Procedure B-7-1 Determination of contaminant limits and attenuation zones, Ministry of the Environment, Conservation and Parks.</p>
<p><i>Dewatering of excavations and discharge of water</i></p>	<p>5.19.18 Groundwater quality will be characterized during the preliminary geotechnical investigations where groundwater is encountered with samples collected at the advice of the QP as defined per O. Reg. 153/04.</p> <p>5.19.19 Consistent with OPSS 518, uncontaminated groundwater will be pumped to a natural attenuation area (e.g., stable, well vegetated area) adjacent to the excavation site.</p> <p>5.19.20 Discharge sites will be selected to ensure they are stable, at least 30 m from a watercourse or waterbody, and will not disrupt access, or affect constructability of other areas of the ROW.</p> <p>5.19.21 Appropriate erosion and sediment control measures will be employed to ensure sedimentation or erosion at the discharge site are managed. This may include the use of straw bales, filter bags, sediment settling ponds, rock pads, etc. Installation of ESC measures will comply with Ontario Provincial Standard Drawings.</p> <p>5.19.22 Erosion and sediment control measures will be monitored and maintained regularly according to OPSS 805.</p> <p>5.19.23 If contaminated water is encountered, dewatering will pump water into enclosed storage for offsite disposal at a licensed facility. Off-site disposal will be documented and reported as part of monthly waste management reporting.</p>



Activity/Concern	Mitigation Measures
<i>Monitoring</i>	<p>5.19.24 Monitoring will be conducted as per conditions of the PTTW or EASR requirements.</p> <p>5.19.25 Site-specific effects monitoring will be completed if groundwater quality or quantity impacts are observed or reported. The site-specific effects monitoring will be designed to assess the magnitude and extent of the impact and the effectiveness of mitigation and restoration efforts.</p> <p>5.19.26 At minimum, records will document date, time and location of dewatering, average rate of dewatering, daily dewatering volumes, daily precipitation, composition (groundwater, stormwater, etc.) and turbidity.</p> <p>5.19.27 Where the discharge site is located in proximity (within 30 m) to a watercourse, upstream and downstream turbidity will also be collected during discharge.</p>

5.20 ENVIRONMENTAL MONITORING AND REPORTING PLAN

The Environmental Monitoring and Reporting plan provides an overview of schedule, personnel and additional reporting requirements required by Hydro One for the Project. A detailed description of Valard's environmental management tools for tracking tasks, issues, permit conditions and compliance, and document control is described in Section 5.4 of the Project EMS. Additionally, procedures for environmental monitoring, data collection and reporting are described in Section 5.5 of the Project EMS.

Monitoring

The Project Environmental Manager, supported by QEPs and Project Environmental Lead, is responsible for the daily onsite implementation of the EMS and EPP which includes ensuring that all personnel are fully aware of all requirements and regular review of any changes to the EPP including date check to ensure the correct document is being used. Key personnel are described in Section 2.3 and 4.3 of the Project EMS.

Daily environmental monitoring will be carried out on site during construction by ECs and EMs, as required. The PEL will be on site during construction and provide direction and feedback to the ECs, EMs and Construction Management to ensure day-to-day site environmental compliance. The PEL is directly supported by the PEM and ROW LPM for overall Project environmental compliance. The PEM will visit the site, at minimum, monthly to conduct compliance checks and facilitate reporting. Additional on-site discipline specific assessments and surveys (i.e., pertaining to wildlife, fish and fish habitat, bird surveys, etc.) will be conducted by third party QEPs as required. Indigenous monitors from affected Indigenous communities will be provided opportunity to be on-site during construction to monitor the operations as appropriate.

Daily environmental monitoring includes, but is not limited to:

- Assessment of the environmental condition related to construction activities (i.e., air quality/dust control, wildlife, fish and fish habitat, water quality, erosion and sedimentation, soil, water crossings, etc.);
- Evaluation and management of environmental incidents, erosion and sediment control, weather related



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- issues, etc., as required;
- Management of excess soil, slurry, water, and other wastes, as required;
- Delineation and monitoring of all environmentally sensitive areas or features such as riparian areas, wetlands, woodlots, nests or nesting areas and/or other wildlife features, as required; and
- Inspection of equipment, camps, laydowns or other fuel and/or material storage areas, as required.

Reporting

Reporting associated with daily environmental monitoring is completed by on-site environmental staff as described in Section 5.5.1 of the Project EMS. Summary results from the daily onsite environmental inspections and compliance monitoring will be included into the Weekly and Monthly Progress Report provided to Hydro One as described in the Project Management: Reporting Plan (refer to Section 2 and Appendix 4). Specifically, environmental content to be provided will include, but is not limited to, the following:

Report Category	Monthly Reporting Requirements
<i>Regulatory/Permitting Status</i>	<p>5.20.1 Permit status updates and management summary, including permits, approvals, assessments, building permit inspection records, etc. (Refer to the 'Permitting and Approvals Plan' for anticipated permitting requirements).</p> <p>5.20.2 A Closing Environmental Report will be provided as required for any permits/approvals/documentation (i.e., building permits, drainage ECA or other) documenting Project compliance with regulatory conditions.</p>
<i>Environmental Issues/Concerns (new and prior)</i>	<p>5.20.3 Summary of environmental issues/concerns, deficiencies, and corrective actions.</p>
<i>Compliance Status</i>	<p>5.20.4 Summary of overall compliance with EPP, including, but not limited to, inclusion of the following supporting documentation/records (as applicable):</p> <p>5.20.5 Dust Control/Air Quality:</p> <ul style="list-style-type: none"> • Records/documentation for all dust control measures (including road cleaning) through the duration of construction. <p>5.20.6 Environmentally Sensitive Areas/Features/Species (Wetlands, Watercourses, Woodlands/Woodlots, Wildlife/SAR, etc.):</p> <ul style="list-style-type: none"> • Installation, monitoring and maintenance records/documentation re environmentally sensitive areas staked/flagged/fenced. • Results/findings for any wildlife surveys, acoustic surveys, nest searches, etc. in accordance with the Wildlife Management Plan (Section 5.9 EPP), as required. • Records re: watercourse monitoring/reporting requirements as



Report Category	Monthly Reporting Requirements
	<p>required by approvals or permitting.</p> <ul style="list-style-type: none"> Summary of wildlife observations/encounters, including any SAR observations or species noted during the recommended daily morning vehicle and equipment engine checks (note: if any SAR are encountered during construction, the occurrence will be documented with location, date, time, and any photos, will be provided to the Hydro One Environmental Planner immediately). <p>5.20.7 Erosion and Sediment Control (ESC):</p> <ul style="list-style-type: none"> Record of all ESC installations, daily monitoring and remedial actions (repairs, replacements, etc.) throughout construction. <p>5.20.8 Soil and Water:</p> <ul style="list-style-type: none"> Management and monitoring of all construction water conveyed by tile drains, dewatering of excavations and discharge of water will be in accordance with all applicable regulations, best management practices and requirements. All soil and water management records (i.e., soil, water quality analyses, etc., as required). Monitoring for dewatering of excavations and discharge of water will be conducted as per conditions of the PTTW or EASR requirements. At minimum, groundwater dewatering records will document date and location of dewatering, average rate of dewatering, daily dewatering volumes, daily precipitation, composition (groundwater, stormwater, etc.) and turbidity. Where the discharge site is located in proximity (within 30 m) to a watercourse, upstream and downstream turbidity will also be collected during discharge.
<i>Environmental Incident Report Summary</i>	<p>5.20.9 Record of all environmental incidents, deficiencies, and corrective actions taken. Record to include: date/time of spill, material spilled, and quantity of material and cause of the spill, reporting to external agencies, remedial/corrective actions and related work complete.</p>
<i>Waste Management Records</i>	<p>5.20.10 All slurry and waste management records (RPRA records, bills of lading, manifests, etc.).</p> <p>5.20.11 Records of hazardous waste sampling and discovery.</p>



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Report Category	Monthly Reporting Requirements
<i>Imported Soil and Backfill Records</i>	5.20.12 Provide any imported soil or backfill records (i.e., records of testing, etc.).



APPENDIX A - RE-USE OF EXCESS SOIL OR BACKFILL

Re-Use of Excess Soil and Backfill on Hydro One Property

Excavated soil and backfill may not necessarily be classified as a "waste" if it has a re-use purpose within the limits of Hydro One property. All criteria below must be met to re-use excess materials.

Criteria*	Yes	No
The material consists solely of soil and/or backfill and does not include bituminous material, coal or coal residue, concrete, masonry, wood, debris, metal, plastic, or any other waste material or construction debris		
The material meets Site Condition Standard		
Potential for off-site migration of contaminants (soil or groundwater)		
Adverse effect (specifically this would pertain to off-site given that on-site, workers would be equipped with appropriate PPE)		
The material removed will be re-used for the purpose of backfilling and the location has been review and agreed upon by engineering (will not alter and or marginalize geotechnical conditions required for current or future works)		
The material will be backfilled within the Contractor's construction limits and not transported to another part of the site unless approved by all relevant Hydro One parties		
The material will be backfilled within 100 m of water wells		
The material will be backfilled within 100 m of residences		
The material removed is located in close proximity of a fence line and/or property line where the potential for adverse effect would be greater		
Groundwater encountered during excavation		
The material is backfilled around perforated drainage pipes		
The material will be used as backfill providing the surrounding soil is of the site quality (meeting Site Condition Standard) based on knowledge of the site and results of previous subsurface investigations		
There are waterbodies, catch basins, manholes, drainage swales, etc. within 30 m of the location where the contaminated material will be used as backfill		

***All criteria above (shaded) must be met to re-use excess materials**



APPENDIX B - EPP CONSULTATION PLAN

Indigenous Community Consultation Plan

The Conditions of Approval of the Waasigan Environmental Assessment (EA) related to Consultation with Indigenous communities are achieved through the Memorandum of Understanding (MOU) Consultation Plan as well as other community-specific agreements and ongoing project engagement and communication work plans that stem from the deliverables of the overarching MOU Consultation Plan.

The Environmental Protection Plan (EPP) is a living document that is shared with Indigenous communities when amendments are made, and new versions are released. Valard has consulted through workshops with GLP and received feedback from GLP for the development of the EPP. All comments and recommendations have been incorporated into the EPP (currently version 7). The EPP references Indigenous communities' consultation and notification requirements throughout the document which include developing site-specific monitoring and mitigation plans when novel conditions are encountered, to address a specific environmental feature or to incorporate the advice of Indigenous communities. In addition, Indigenous communities will be notified to provide necessary feedback when environmental permits and approvals are obtained prior to the construction in environmentally sensitive areas if environmental features were previously unknown or cannot be avoided.

As part of Valard's ongoing commitment to maintain open and effective communication with our GLP, Indigenous Communities, and Indigenous Groups, we conduct recurring monthly project update meetings, virtually and when requested, in person.

GLP Nations:

- Fort Willilam First Nation
- Eagle Lake First Nation
- Nigigoonsiminikaaning First Nation
- Ojibway Nation of Saugeen
- Lac Seul First Nation
- Wabigoon Lake Ojibway Nation

Indigenous Communities:

- Couchiching First Nation
- Mitaanjugamiing First Nation
- Lac des Mille Lacs First Nation
- Metis Nation of Ontario
- Red Sky Metis Independent Nation

These meetings follow an agenda of topics that include:

Project Updates:

- Provide updates to current and upcoming activities

Community-Specific Engagement Plans:

- Review of current engagement, notifications, issues and concerns

Project-Specific Notifications:



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- Review and follow up of current notifications

Permitting Engagement

- Follow up on outstanding concerns if any

Environmental Protection Plan

- Updates as needed

In addition to our monthly meetings, Valard meets bi-weekly with Hydro One, GLP and Chi Mino Ozhitowin. These meetings focus on sharing updates and addressing any issues or concerns that may have arisen since the last meeting.

It's important to note that Valard signed and follows the GLP protocols that state notifications are to be provided at a minimum 14 days before work activities and followed up at least 5 days after the initial email if a response is not received.

Agency Consultation Plan

As mentioned above, the EPP is a living document that is shared with applicable regulatory agencies as appropriate. Valard has consulted and received feedback from the Ministry of Natural Resources (MNR) for the development of the EPP. All comments and recommendations have been incorporated into the EPP (currently version 6.3).

As permit approvals and authorizations are obtained from the appropriate regulatory agencies, permit conditions will be added to the EPP. Consultation summaries for Indigenous communities and Agencies on the EPP will be provided to the Ministry of the Environment, Conservation and Parks (MECP) Director for review within 30 days of EA approval and every three months thereafter until the Director gives notice to Hydro One that the EPP and consultation summaries are no longer required to be submitted.



APPENDIX C - BIODIVERSITY INITIATIVE PLAN

Hydro One has committed to undertaking a biodiversity initiative specific to the Waasigan Project to offset habitat loss or transition (long-term change) that may occur as a result of the Project.

The scope of the biodiversity initiative is expected to be determined post-EA completion; however, typically such initiatives involve the funding of third-party opportunities or projects, such as wetland and wildlife habitat creation and enhancement, aquatic habitat restoration and enhancement activities, or invasive species inventory or removal, among others. As well, in an effort to offset socio-economic net effects, Hydro One is also committed to working with local communities in the Project area to identify opportunities that could enhance and contribute to the broader landscape, recognizing that community benefits can be varied and diverse in nature.

Following completion of the EA process, Hydro One will engage with Indigenous communities, local communities and interested parties to discuss the implementation of the biodiversity and community benefits initiatives for the Project. The Biodiversity Initiative Plan will be updated throughout this process to describe each initiative and outline the implementation process.



APPENDIX D - ADDITIONAL ENVIRONMENTAL RESOURCES

Jurisdiction	Reference Document	Link
Ontario Government - Law	Planning Act	https://www.ontario.ca/laws/statute/90p13
Ontario Government - Law	Planning Act - Provincial Policy Statement 2020	https://files.ontario.ca/mmah-provincial-policy-statement-2020-accessible-final-en-2020-02-14.pdf
Ontario Government	Crown Land Use Policy Atlas (CLUPA)	https://www.liaapplications.lrc.gov.on.ca/CLUPA/index.html?viewer=CLUPA.CLUPA&locale=en-CA
Ontario Government - Law	Places to Grow Act - Growth Plan for Northern Ontario	https://www.ontario.ca/laws/statute/05p13
Ontario Government - Law	Northern Services Board Act	https://www.ontario.ca/laws/statute/90l28
Ontario Government - Law	Fire Protection and Prevention Act.	https://www.ontario.ca/laws/statute/97f04
Ontario Government - Law	Forest Fire Prevention Act	https://www.ontario.ca/laws/statute/90f24
Ontario Government - Regulation	Forest Fires Prevention Act - Ontario Regulation 207/96: Outdoor Fires	https://www.ontario.ca/laws/regulation/960207#:~:text=(1)%20No%20person%20shall%20start,207%2F96%2C%20s.
Ontario Government - MNR	MNR Industrial Operations Protocol	https://files.ontario.ca/MNR-industrial-operations-protocol-2018-en-13-01-2020.pdf
Federal Government – CNRC	National Fire Code of Canada	https://publications.gc.ca/collections/collection_2022/cnrc-nrc/NR24-27-2020-eng.pdf
Ontario Government - Law	Technical Standards and Safety Act	https://www.ontario.ca/laws/statute/00t16
Ontario Government - Regulation	Technical Standards and Safety Act – Ontario Regulation 217/01: Liquid Fuels	https://www.ontario.ca/laws/regulation/010217
Ontario Government - Law	Aggregate Resources Act	https://www.ontario.ca/laws/statute/90a08
Ontario Government - Regulation	Aggregate Resources Act - Ontario Regulation 244/97: General	https://www.ontario.ca/laws/regulation/970244



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Jurisdiction	Reference Document	Link
Ontario Government – Provincial Standards	Aggregate Resources Act, Provincial Standards of Ontario – Category 9 – Pit Above Water	https://files.ontario.ca/environment-and-energy/aggregates/provincial-standards/mnr_e000034.pdf
Ontario Government – Provincial Standards	Aggregate Resources Act, Provincial Standards of Ontario – Category 11 – Quarry Above Water	https://files.ontario.ca/environment-and-energy/aggregates/provincial-standards/mnr_e000036.pdf
Ontario Government - MNR	Forest Management Planning Manual Appendix V: Operational Standards for Forest Aggregate Pits	https://files.ontario.ca/forest-management-planning-manual.pdf
Ontario Government - MNR	MNR Process for new pits and quarries	https://www.ontario.ca/page/aggregate-resources#section-7
Ontario Government - Law	Environmental Protection Act	https://www.ontario.ca/laws/statute/90e19
Ontario Government - Regulation	Environmental Protection Act – Ontario Regulation 406/19: On-site and Excess Soil Management	https://www.ontario.ca/laws/regulation/r19406
Ontario Government - Regulation	Environmental Protection Act – Ontario Regulation 153/04: Records of Site Condition	https://www.ontario.ca/laws/regulation/040153
Ontario Government - Regulation	Environmental Protection Act – Ontario Regulation 347: General Waste Management	https://www.ontario.ca/laws/regulation/900347
Ontario Government - MNR	Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales	https://docs.ontario.ca/documents/4816/stand-amp-site-guide.pdf
Ontario Government - MNR	Environmental Guidelines for Access Roads and water crossings	https://www.ontario.ca/page/environmental-guidelines-access-roads-and-water-crossings
Ontario Government – Standard Specification	Ontario Provincial Standard Specification Provincial 804: Temporary Erosion Control	https://www.library.mto.gov.on.ca/SydneyPLUS/TechPubs/Portal/tp/opsViews.aspx?lang=en-US
Ontario Government – Standard Specification	Ontario Provincial Standard Specification Municipal 804: Seed and Cover	https://www.library.mto.gov.on.ca/SydneyPLUS/TechPubs/Portal/tp/opsViews.aspx?lang=en-US
Ontario Government – Standard Specification	Ontario Provincial Standard Specification Provincial 805:	https://www.library.mto.gov.on.ca/SydneyPLUS/TechPubs/Portal/tp/opsViews.aspx?lang=en-US



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Jurisdiction	Reference Document	Link
	Temporary Erosion and Sediment Control Measures	
Ontario Government – Standard Specification	Ontario Provincial Standard Specification Provincial 805: Temporary Sediment Control	https://www.library.mto.gov.on.ca/SydneyPLUS/TechPubs/Portal/tp/opsViews.aspx?lang=en-US
Ontario Government - Law	Endangered Species Act	https://www.ontario.ca/laws/statute/07e06
Ontario Government - MNR	Ontario Species at Risk Handling Manual: For Endangered Species Act Authorization Holders	https://files.ontario.ca/environment-and-energy/species-at-risk/mnr_sar_tx_sar_hnd_mnl_en.pdf
Ontario Government - MNR	Best Management Practices for the Protection, Creation and Maintenance of Bank Swallow Habitat in Ontario	https://files.ontario.ca/bansbmpenpdffinalv.1.117mar17.pdf
Federal Government –	Species at Risk Act	https://laws.justice.gc.ca/eng/acts/s-15.3/
Federal Government –	Migratory Birds Convention Act	https://laws-lois.justice.gc.ca/eng/acts/m-7.01/
Ontario Government - MNR	Clean Equipment Protocol for Industry, Ontario Invasive Species Council, 2016.	https://www.ontarioinvasiveplants.ca/wp-content/uploads/2016/07/Clean-Equipment-Protocol_June2016_D3_WEB-1.pdf
Federal Government – CFIA	Forestry Policies	https://inspection.canada.ca/plant-health/forestry/eng/1299166186965/1299166280737
Federal Government – DFO	Code of practice: temporary stream crossings	https://www.dfo-mpo.gc.ca/pnw-ppe/codes/temporary-crossings-traversees-temporaires-eng.html
Federal Government – DFO	Measures to Protect Fish and Fish Habitat	https://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures-eng.html
Federal Government – DFO	Code of practice: temporary fords	https://www.dfo-mpo.gc.ca/pnw-ppe/codes/temporary-fords-traversees-temporaires-eng.html
Federal Government – DFO	Standard: In-water Site Isolation	Interim standard: in-water site isolation (dfo-mpo.gc.ca)



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Jurisdiction	Reference Document	Link
Federal Government – DFO	Code of practice: End-of-pipe fish protection screens for small water intakes in freshwater.	https://www.dfo-mpo.gc.ca/pnw-ppe/codes/screen-ecran-eng.html
Federal Government – DFO	Code of Practice: Culvert Maintenance	https://www.dfo-mpo.gc.ca/pnw-ppe/codes/culvert-maintenance-entretien-ponceaux-eng.html
Federal Government – DFO	Code of practice: beaver dam breaching and removal	https://www.dfo-mpo.gc.ca/pnw-ppe/codes/beaver-dam-barrage-castor-eng.html
Federal Government – DFO	Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters	https://publications.gc.ca/collections/Collection/Fs97-6-2107E.pdf
Federal Government – NR Canada	Explosives Act	https://laws-lois.justice.gc.ca/eng/acts/E-17/index.html
Federal Government – NR Canada	Explosives Act - Explosives Regulations	https://laws-lois.justice.gc.ca/eng/regulations/SOR-2013-211/index.html
Ontario Government – Standard Specification	Ontario Provincial Standard Specification Municipal 120: General Specification for the use of explosives	https://www.library.mto.gov.on.ca/SydneyPLUS/TechPubs/Portal/tp/opsViews.aspx?lang=en-US
Ontario Government – Standard Specification	Ontario Provincial Standard Specification Provincial 120: General Specification for the use of explosives	https://www.library.mto.gov.on.ca/SydneyPLUS/TechPubs/Portal/tp/opsViews.aspx?lang=en-US
Ontario Government - MOECC	Environmental Noise Guideline - Stationary and Transportation Sources – Approval and Planning (NPC-300) Publication	https://www.ontario.ca/page/environmental-noise-guideline-stationary-and-transportation-sources-approval-and-planning
Federal Government – NAV Canada	Land Use Program, Blasting Application Form	https://www.navcanada.ca/en/aeronautical-information/land-use-program.aspx
Federal Government – Transports Canada	Canadian Navigable Waters Act (formerly Navigation Protection Act)	https://laws-lois.justice.gc.ca/eng/acts/n-22/
Ontario Government - Law	Ontario Water Resources Act	https://www.ontario.ca/laws/statute/90o40
Ontario Government - Regulation	Ontario Water Resources Act – Ontario Regulation 387/04: Water Taking and Transfer	https://www.ontario.ca/laws/regulation/040387



Hydro One Networks Inc. – Waasigan Transmission Line Project
Environmental Protection Plan – Version 7.0

Jurisdiction	Reference Document	Link
Ontario Government - Regulation	Ontario Water Resources Act – Ontario Regulation 64/16: Water Taking and Transfer	https://www.ontario.ca/laws/regulation/r16064
Ontario Government - Regulation	Ontario Water Resources Act – Ontario Regulation 63/16: Registrations under Part II.2 of the Act – Water Taking	https://www.ontario.ca/laws/regulation/160063
Ontario Government – Standard Specification	OPSS 518: Control of Water from Dewatering Operations	TS 518 Control of Water from Dewatering Operations (toronto.ca)
Ontario Government - Law	Occupational Health and Safety Act	https://www.ontario.ca/laws/statute/90o01
Ontario Government - Regulation	Occupational Health and Safety Act – Ontario Regulation 490/09: Designated Substances	https://www.ontario.ca/laws/regulation/090490
Ontario Government - Regulation	Occupational Health and Safety Act – Ontario Regulation 278/05: Designated Substance-Asbestos on Construction Projects and in Building and Repair Operations	https://www.ontario.ca/laws/regulation/050278
Federal Government	Transportation of Dangerous Goods Act	https://laws-lois.justice.gc.ca/eng/acts/t-19.01/
Federal Government – CCME	Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products	https://www.canada.ca/content/dam/eccc/documents/pdf/cepa/ccme-pn-1326-eng.pdf
Stand and Site Guide	Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales	Table of Contents (ontario.ca)
Ontario Government – MNR	Reptile and amphibian exclusion fencing	Reptile and amphibian exclusion fencing ontario.ca