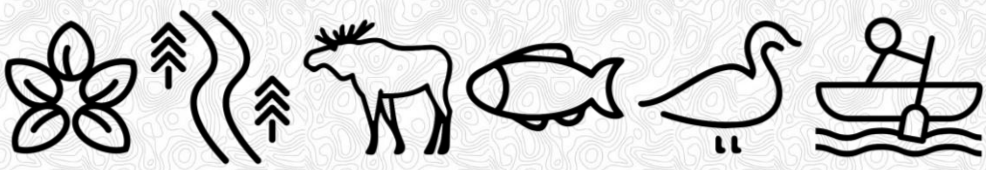
Marten Falls First Nation Community Access Road Commitments

August 12, 2026



Preamble

The Marten Falls First Nation Community Access Road Commitments document (August 10, 2026) serves as a comprehensive record of commitments associated with the planning, design, construction, operations/maintenance, monitoring, and adaptive management of the proposed Community Access Road. The document consolidates commitments made throughout the environmental assessment process and subsequent review activities, including commitments identified in the Final Environmental Assessment/Impact Statement (EA/IS), Indigenous and stakeholder consultation, technical studies, responses to comments received from Indigenous communities, government agencies, and stakeholders, and other project-related review processes.

The purpose of this document is to provide a centralized and traceable record of commitments that will be carried forward through future phases of the Community Access Road to avoid, reduce, mitigate, monitor, and manage potential Project effects. The commitments identified herein support compliance with regulatory requirements and approvals while helping to guide the implementation of project activities in a manner that supports environmental protection, Indigenous values, community interests, and long-term sustainability.

Tables 1 through 3 contain commitments made as part of the Environmental Assessment / Impact Assessment and documented in Appendices AA1 and AA3 of the Final EA/IS. These commitments are organized according to the Project's valued components (Water, Land, People) and include mitigation measures, monitoring requirements and adaptive management measures to be implemented during detail design, construction, and operations/maintenance.

Table 4 presents the commitments made as part of the Project’s consultation program, including commitments that guide ongoing and future consultation activities with Indigenous communities and interested parties throughout subsequent phases of the Project.

Table 5 contains commitments developed in response to comments received on the Draft EA/IS. These commitments were identified through the review process and are derived from responses documented in Appendix C of the Final EA/IS.

Table 6 contains additional commitments arising from comments received from Indigenous communities on post-EA technical reports. The draft Cultural Heritage Evaluation Report (CHER) was circulated to Indigenous communities for review and comment in fulfillment of a commitment made in the EA/IS. The CHER will be finalized following the incorporation of community feedback. Community-specific Aboriginal

and/or Treaty Rights and Interests Technical Support Documents were also circulated to Indigenous communities during the Ministry of the Environment, Conservation and Parks review of the Final EA/IS, and the commitments in Table 6 reflect additional measures developed in response to comments received during those review processes.

Table 7 presents commitments made to the Provincial Government Review Team (GRT) in response to comments on the Final EA/IS, as well as applicable commitments identified in Section 13 of the Final EA/IS.

Table 8 contains commitments originating from the technical support documents that informed the EA/IS and Project assessment. These commitments provide additional detail regarding the implementation of mitigation, monitoring, management, and follow-up measures identified through discipline-specific studies.

Overall, this Commitments Document provides a framework for environmental stewardship, accountability, transparency, and continual improvement throughout the Community Access Road lifecycle. By consolidating commitments from the EA/IS, supporting technical studies, consultation and engagement activities, and subsequent review processes, the document supports the effective implementation of Project activities while protecting environmental and cultural values, addressing community interests, and fostering meaningful collaboration with Indigenous communities, regulators, and stakeholders.

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Table 1: Water Commitments

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
Surface Water						
SW-01	• Surface Water Quantity • Surface Water Quality	• Changes to surface water quantity and surface water quality from short-term water taking	• Construction	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• Water taking will be in compliance with *Ontario Regulation 387/04* as amended by *Ontario Regulation 64/16* under the Ontario *Water Resources Act* (Government of Ontario, 1990a). • Site-specific water flow and/or levels triggers will be developed for sensitive water sources that may be affected by water takings, if needed. • Drilling of groundwater wells at the temporary construction camps, if necessary, as a last resort, will be in accordance with the *Revised Regulations of Ontario (Regulation 903: Wells)*, under the *Ontario Water Resources Act* (Government of Ontario, 1990a).	• Potable water for work sites, temporary construction camps, and temporary laydown areas will be obtained from surface water sources (with appropriate treatment as needed), bottled sources, and groundwater wells (only if necessary).
SW-02	• Surface Water Quantity • Surface Water Quality	• Changes to surface water quantity and quality from short-term water discharges	• Construction	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• The plans and / or systems to collect, store, and dispose construction water will be designed / prepared in compliance with Ontario Regulation 387/04 as amended by Ontario Regulation 64/16 and / or Ontario Regulation 63/16 (Government of Ontario, 1990a), where applicable, and best industry practices. • Wastewater associated with discharges from Project will be characterized and, in some cases, assimilative capacity study will be conducted, where necessary. • Sewage disposal systems such as leaching beds will be designed, constructed, and operated according to Ontario Building Code 2012 (Ontario Regulation 332/12: Building Code) under *Building Code Act* (Government of Ontario, 1992). • Owner / operator will review discharge sites / locations to avoid discharging to sensitive areas, including areas identified through the Indigenous Knowledge Program.	• Collection, storage, and disposal of construction water, domestic sewage, and wash water will follow applicable approvals, and best industry practices. • The wash-out site will be monitored regularly to verify that runoff from the area does not report to a waterbody. • Construction water / wastewater (not requiring approvals) will be directed, at a minimum, to low-lying vegetated areas for infiltration, and measures such as filter fabric or straw bales will be utilized to minimize sediment transport during dewatering. • Following construction, all temporary wash-out sites will be capped with local backfill and regraded prior to construction crews departing the site. • If required and when feasible, domestic wastewater will be removed by approved disposal trucks and disposed of at wastewater treatment plants with authorization and capacity to accept this wastewater.
SW-03	• Surface Water Quantity • Surface Water Quality • Sediment Quality	• Changes to surface water quantity, surface water quality, and sediment quality during short-term water diversions at waterbody crossings	• Construction	• Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks	• The design of waterbody crossings, construction, and diversion plans will be prepared in compliance with applicable regulations and guidelines including Ontario Regulation 387/04 as amended by Ontario Regulation 301/21 (Government of Ontario, 1990a), Ontario Regulation 454/96 of the *Lakes and Rivers Improvement Act* (Government of Ontario, 1990b) and Ministry of Natural Resources' Environmental Guidelines for Access Roads and Water Crossings (Ontario Ministry of Natural Resources, 1990) as well as Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales (Ontario Ministry of Natural Resources, 2010a) and *Technical Guide River & Stream Systems: Flooding Hazard Limit* (Ministry of Natural Resources, 2002), as applicable. • An Adaptive Management Plan will be developed in the event of an unexpected change to water quantity or	• The construction of waterbody crossings and removal of temporary works will be in compliance with applicable regulations and requirements (e.g., Ontario Regulation 454/96 [Government of Ontario, 1990b], and Ministry of Natural Resources' Environmental Guidelines for Access Roads and Water Crossings [Ontario Ministry of Natural Resources, 1990]). • Short-term water diversions (active or passive) will be carried out in accordance with Ontario Regulation 387/04 as amended by Ontario Regulation 63/16 and 64/16 under the Ontario Water Resources Act (Government of Ontario, 1990a). • Waterbody crossings will be constructed in accordance with Ministry of Natural Resources' Environmental Guidelines for Access Roads and Water Crossings (Ontario Ministry of Natural Resources, 1990). • CLIAMTE-1 to CLIMATE-25 IDs be implemented. • Environmental monitoring (including water quality sampling / testing) will be conducted during construction to verify the performance and effectiveness of the planned mitigation. The monitoring program will be under the

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					quality (i.e., increase in turbidity in accordance with Canadian Council of Ministers of the Environment standards).	direction of the Environmental Monitor and Indigenous Environmental Monitor. • In-situ monitoring of one or more surface water quantity and quality parameters (including but not limited to water taking and discharge rates, pH, temperature, dissolved oxygen, turbidity, conductivity, and other contaminants of concerns as required) and sampling for laboratory analysis of surface water quality parameters (including but not limited to hardness, alkalinity, total suspended solids, total dissolved solids, dissolved organic carbon, biochemical oxygen demand, major and minor ions (including sulphate), total metals, nutrients (total phosphorus, total ammonia, total Kjeldahl nitrogen), total and dissolved organic carbon, and other contaminants of concerns as required) will be conducted at water taking and / or discharge locations to satisfy the conditions / requirements of Water Taking and Discharge Plans related to applicable approvals, and to confirm the effectiveness of the Water Taking and Discharge Plans and associated mitigation and enhancement measures. Qualified environmental personnel (with expertise in surface water and water quality such as a water resources engineer) will be retained for monitoring program to help confirm that the proposed environmental safeguards are in place, and effectively utilized in protecting the environment. • An Adaptive Management Plan will be implemented in the event of an unexpected change to water quantity or quality. • Temporary waterbody crossings will be remediated at the end of construction.
SW-04	• Surface Water Quantity • Surface Water Quality • Sediment Quality	• Changes to surface water quantity, surface water quality, and sediment quality due to changes in channel hydraulics at waterbody crossings	• Construction • Operations	• Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks	• The design of waterbody crossings, construction, and diversion plans will be prepared in compliance with applicable regulations and guidelines including Ontario Regulation 239/13 (Government of Ontario, 1990c) and Ontario Regulation 454/96 (Government of Ontario, 1990b) and Ministry of Natural Resources' Environmental Guidelines for Access Roads and Water Crossings (Ontario Ministry of Natural Resources, 1990) as well as Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales (Ontario Ministry of Natural Resources, 2010a) and *Technical Guide River & Stream Systems: Flooding Hazard Limit* (Ministry of Natural Resources, 2002), as applicable. • In case site-specific changes to water crossing would be required, engagement with Ministry of Natural Resources, Fisheries and Oceans Canada and stakeholders will occur prior to any instream construction activities, where appropriate (e.g., placement of additional fill, regrading, and / or stabilization of bed or banks). • Waterbody crossing will be designed to maintain the characteristic channel width, depths, slopes, and substrate in the event that a channel realignment is required. • Design of waterbody crossing structures (culverts and bridges) will consider climate change factors.	• Waterbody crossings will be constructed in accordance with approvals through Fisheries and Oceans Canada and Ministry of Natural Resources under Ontario Regulation 239/13 (Government of Ontario, 1990c) and Ontario Regulation 454/96 (Government of Ontario, 1990b), as applicable. • Each waterbody crossing will be visited ahead of construction by qualified environmental personnel and fisheries biologists and / or technicians (i.e., Aquatics Specialist) to verify that the crossing location is conducive to the planned crossing structure installation, such that any changes in site conditions can be addressed through necessary design adjustments. During pre-construction site visits, surface water surveys at any waterbody crossing location that has not already been assessed as part of the field investigations will be conducted. Refer to Section 9.1 for details about pre-construction surveys. • Prior to commencing construction work, owner / operator will implement erosion and sediment control measures that will be monitored / inspected. • At some locations where it is determined that spring-melt or storm runoff needs to pass from one side of the right-of-way to the other to prevent flooding and / or erosion, equalization culverts will be installed. • Upon completion of construction work, watercourse banks will be returned to their original profile, disturbed areas will be stabilized as necessary to prevent soil erosion and temporary waterbody crossings will be reclaimed. • Maintenance of waterbody crossings will be carried out in accordance approvals through Fisheries and Oceans Canada and Ministry of Natural Resources, as applicable. • Monitoring of permanent culverts will be in accordance with the Culvert Inspection Guide (Ontario Ministry of Transportation, 2022) to identify and

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						remove blockages (e.g., ice, woody debris), as needed, that could otherwise lead to scouring and effects on channel morphology and fish habitat and potentially interfere with fish passage. • Monitoring and inspection of new permanent waterbody crossing structures (bridges), and roadside drainage features for physical function and condition will be carried out in accordance with the Ontario Structure Inspection Manual (Ministry of Transportation, 2008). • Inspection and monitoring frequency will be increased during and after the heavy rainfall and flooding events. • Problems identified during monitoring and inspection will be fixed immediately to prevent any further damage to the channel hydraulics, aquatic habitat and the fisheries resources. • Repair work will be carried out in a manner that would minimize disturbance to waterbodies and aquatic environment. • Prior to commencement of repair work, appropriate erosion and sediment control measures will be implemented in accordance with the Ontario Provincial Standard Specifications for erosion and sediment control measures (Ministry of Transportation, 2021a, 2021b, 2021c). • Upon completion of maintenance work, disturbed areas will be restored and revegetated to mitigate erosion and sediment entry to waterbodies.
SW-05	• Surface Water Quantity • Surface Water Quality • Sediment Quality	• Changes to surface water quantity, surface water quality, and sediment quality due to changes in land cover	• Construction • Operations	• Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks	• The use of off-road vehicles will be planned in accordance with the Code of Practice: Temporary Fords (Fisheries and Oceans Canada, 2022), Fisheries and Oceans Canada's All-Terrain Vehicle Guidance (Fisheries and Oceans Canada, 2010) and Ontario Regulation 316/03 under *Highway Traffic Act* (Government of Ontario, 1990c). • Erosion and Sediment Control Plan for construction will be prepared in accordance with Ontario Provincial Standard Specifications for erosion and sediment control measures (Ministry of Transportation, 2021a, 2021b, 2021c).	• The right-of-way and roads and trails (existing and new) will be used for access, to the extent practicable, to minimize changes in land cover. • The Community Access Road will be constructed in accordance with the Ministry of Natural Resources' Environmental Guidelines for Access Roads and Water Crossings (Ontario Ministry of Natural Resources, 1990). • Temporary construction camps, temporary laydown areas, and other Project activities will be located a minimum of 30 m away from the ordinary high-water mark of a waterbody. • Erosion and Sediment Control Plan will be implemented during construction in accordance with Ontario Provincial Standard Specifications (Ministry of Transportation, 2021a, 2021b, 2021c). • Progressive revegetation of the right-of-way will be implemented. Temporary access roads and trails, temporary construction camps, turnaround areas, waterbody crossings, and temporary laydown areas will be reclaimed progressively through the Construction. Seeding will follow as close as possible to final cleanup and topsoil material replacement pending seasonal or weather conditions. • Only materials cleared for acid rock drainage (i.e., non-potentially acid-generating rock) by a geochemical verification process will be used for the road surface to avoid acid rock drainage or associated metal leaching. • The use of off-road vehicles by Marten Falls First Nation and their contractors during Construction and Operations (where applicable) Phases will be limited and follow Fisheries and Oceans Canada's guidelines. • Off-road vehicles to be used construction and maintenance activities (where applicable) will be inspected and cleaned before and after each use to prevent the spread of invasive species and to identify any fuel leaks or equipment damage.

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						• During maintenance works, disturbance to existing land cover will be kept to a minimum level and disturbed areas will be restored and revegetated including natural revegetation.
SW-06	• Surface Water Quality • Sediment Quality	• Changes to surface water quality and sediment quality from the wash off of organic to nearby waterbodies, and / or increased rates of erosion in disturbed and exposed areas with sediment transport and delivery to adjacent waterbodies	• Construction	• Ministry of Natural Resources • Ontario Parks • Ministry of the Environment Conservation and Parks • Ontario Parks	• Water crossings will follow Ontario Regulation 239/13 under Public Lands Act (Government of Ontario, 1990c) and / or Ontario Regulation 454/96 under the *Lakes and Rivers Improvement Act* (Government of Ontario, 1990b), as applicable. • The reuse and / or disposal of slash and debris will follow provincial *Forest Fires Prevention Act* and in compliance with Ontario Regulation 207/96 (Government of Ontario, 1990e). • Erosion and Sediment Control Plans will be prepared. • The aggregate pits will follow the guidelines and associated conditions / requirements, including development of a Rehabilitation Plan, outlined in the Aggregate Permits on Crown Lands for Pits and Quarries above Water (Ontario Ministry of Natural Resources and Forestry, 2014) and the Forest Management Planning Manual (Ministry of Natural Resources and Forestry, 2017). • Climate change factors will be considered in design of Community Access Road, waterbody crossings, and stormwater management works.	• Temporary laydown areas and temporary construction camps will be constructed on existing disturbed areas and / or at reasonably flat areas with stable soil, where possible. • The Community Access Road and waterbody crossings will be constructed in accordance with the applicable guidelines, regulation, and approvals (e.g., Ministry of Natural Resources' Environmental Guidelines for Access Roads and Water Crossings [Ontario Ministry of Natural Resources, 1990], Ontario Regulation 239/13 [Government of Ontario, 1990c] and / or Ontario Regulation 454/96 [Government of Ontario, 1990b]). • Buffer zones of 30 m will be maintained around waterbodies and clearing of riparian vegetation will be limited to the extent practicable and to the requirement of the access road and alignment clearing width only. Clearing at waterbody crossings along the Community Access Road right-of-way will generally be limited to a 10 m wide right-of-way for equipment access to waterbody crossing structures (e.g., temporary bridges). • Removed vegetation will be immediately transported outside a waterbody buffer zone and above its high-water mark to minimize disturbance to the bed and banks. • Owner / operator will work with both Indigenous communities and forest management units to manage merchantable timber cleared by the Project. • Slash and debris will be chipped and spread over the right-of-way or will be burned in accordance with provincial *Forest Fires Prevention Act* and in compliance with Ontario Regulation 207/96 (Government of Ontario, 1990e). • Erosion and Sediment Control Plan will be implemented. Owner / operator will install, monitor, and manage appropriate erosion and sedimentation control measures in accordance with Ontario Provincial Standard Specifications for erosion and sediment control measures (Ministry of Transportation, 2021a, 2021b, 2021c) to minimize or avoid sediment mobilization to drainages, or waterbodies. Adequate and appropriate erosion and sedimentation control materials will be on site and available prior to commencement of Construction. • Additional contingency measures will be implemented as appropriate in the event of excessive rain, wet weather, or flood-like conditions. • Progressive reclamation of disturbed areas will be practiced. • All aggregate pits will be located a minimum of 120 m away from the ordinary high-water mark of a waterbody, where possible. The aggregate pits will follow the guidelines and associated conditions / requirements, including development of a Rehabilitation Plan.
SW-07	• Surface Water Quality • Sediment Quality	• Changes to surface water quality and sediment quality from the wash off of accidental spills and leaks to nearby waterbodies	• Construction • Operations	• Transport Canada • Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• The transportation, storage, and handling will be planned in compliance with the federal *Transportation of Dangerous Goods Act* (Government of Canada, 1992) and the *Technical Standards and Safety Act* (Government of Ontario, 2000). • The aboveground storage tanks will be designed to meet the requirements of the Canadian Council of Ministers of the Environment (2003).	• During construction, fuel and hazardous materials will be transported, stored, and handled in approved containers in licensed vehicles. • Transportation of fuel on winter roads during Construction will only take place in safe ice conditions. • Vehicles used for transportation will be licensed and maintained according to safety requirements. Vehicles and equipment used for construction activities will be regularly serviced, maintained and inspected for leaks. • Owner / operator will implement Waste Management Plans during construction.

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					• Owner / operator will prepare Waste Management Plans that describe the appropriate management of solid, liquid, and hazardous waste. • Owner / operator will prepare a Spill Prevention and Emergency Response Plan in accordance with Part X of the *Environmental Protection Act* and Ontario Regulation 675/98 under *Environmental Protection Act* (Government of Ontario, 1990f).	• Owner / operator will implement a Spill Prevention and Emergency Response Plan during construction. • Refuelling, service, and maintenance of vehicles and equipment during construction will generally be carried out in designated areas with specific measures to collect and contain leaks and spills, if occurred. • Spill response kits will be provided in fuel and hazardous materials storage and handling facilities at temporary construction camps and temporary laydown areas, in onsite work areas, and / or in vehicles and equipment, and personnel will be trained in spill response practices and procedures. • During the winter periods, sand will be used on the Community Access Road for de-icing instead of road salt. • During operations, vehicles used for transportation will be licensed and maintained according to safety requirements. Vehicles and equipment will be regularly serviced, maintained and inspected for leaks. • Hazardous materials to be used for maintenance activities, will be stored in designated areas designed and constructed to collect and contain minor leaks and spills. • Spill Prevention and Emergency Response Plan for maintenance activities will be developed and implemented.
SW-08	• Surface Water Quality • Sediment Quality	• Changes to surface water quality and sediment quality from the wash off of explosives spills and residues from blasting activities to nearby waterbodies	• Construction	• Transport Canada • Ontario Parks	• The transportation and storage of explosives will be in compliance with the *Explosives Act* (Government of Canada, 1985) and the federal *Transportation of Dangerous Goods Act* (Government of Canada, 1992), where applicable. • Owner / operator will prepare a Blasting and Communication Management Plan that describes specific measures that would be implemented if blasting is required.	• Blasting activities will also be in accordance with aggregate licence issued under *Aggregate Resources Act* (Government of Ontario, 1990g). • Ammonium nitrate and fuel oil will not be used. • Owner / operator will implement a Blasting and Communication Management Plan. • Owner / operator will use explosives only if excavation to remove bed rock is found not feasible. • The Environmental Inspector will monitor blasting operations for adherence to the Blasting and Communication Management Plan. • Discarded explosives will either be detonated on site or temporarily stored in the explosives magazine and returned to the explosives' distributor.
Fish and Fish Habitat						
FFH-01	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes to fish habitat quantity and quality through physical alterations of waterbodies	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Fish and fish habitat and surface water surveys methods will be conducted before construction at any waterbody that has not been assessed and work is proposed below the high-water mark. • Where feasible, areas of sensitive fish habitat and fishing areas that have been identified through the Indigenous Knowledge program in pre-construction design will be avoided. • Limit the Project footprint to the extent feasible. • During detail design, complete site-specific fish and fish habitat and surface water surveys to support engineering and Fisheries and Oceans Canada and the Ministry of Natural Resources permitting at waterbody crossings where work below the high-water mark is proposed. Submit designs of waterbody crossings as required for permit applications to Fisheries and Oceans Canada and the Ministry of Natural Resources. Surveys	• Use existing access roads where possible. • Complete work as quickly as possible to shorten the duration of disturbance. • Decommission and rehabilitate temporary access roads, staging areas, camps, and debris and / or timber stockpiles following construction, where not needed for Operations activities. • Have Environmental Monitors and Indigenous Environmental Monitors on site during construction to confirm that all waterbodies crossed by the Preferred Route right-of-way and access roads have been identified and documented in the waterbody crossing list. The Environmental Monitors will monitor the installation, use, and removal of waterbody crossing structures. The Environmental Monitors will confirm that the appropriate waterbody crossing structure is being used and that the required Fisheries and Oceans Canada and the Ministry of Natural Resources approvals and permits are in place. • If new waterbodies are identified prior to construction, contact an Aquatics Specialist to assess the waterbody. Depending on the nature of the

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					may also be required at select sites where work above the high-water mark is proposed based on Fisheries and Oceans Canada and the Ministry of Natural Resources permitting requirements.	waterbody, recommendations for construction methods, appropriate mitigation and enhancement measures, and permitting requirements will be made by the Aquatics Specialist and, if necessary, local First Nation communities and appropriate regulatory agencies including the Ministry of Natural Resources and Fisheries and Oceans Canada will be engaged. This will allow for the appropriate mitigation and enhancement measures to be implemented during construction at each waterbody crossing at a site-specific level, which will reduce or avoid potential effects on habitat quantity and quality. If new waterbodies are identified during construction, clearly flag the waterbody and suspend activity within 30 m of the location until an Aquatic Specialist has assessed the waterbody and determined a suitable course of action, which may include contacting Fisheries and Oceans Canada and the Ministry of Natural Resources. • Construct waterbody crossings in a manner that maintains downstream flows and fish passage and follows conditions of permits or authorizations issued for the Project by Fisheries and Oceans Canada and the Ministry of Natural Resources. • Construct, operate, remove, decommission, and rehabilitate all waterbody crossing structures, if appropriate, following best management practices and environmental approval conditions, including the Ontario Provincial Standard Specification General Specification for Environmental Protection for Construction in and Around Waterbodies and on Waterbody Banks (Ministry of Transportation, 2025a), Ontario Ministry of Natural Resources Environmental Guidelines for Access Roads and Water Crossings (1990) and Fisheries and Oceans Canada's Measures to Protect Fish and Fish Habitat (2023) and Standards and Codes of Practice. • Avoid construction during a fish and fish habitat restricted activity timing window, where feasible. Work may not be conducted during the proposed restricted activity timing window unless approval is obtained from the Ministry of Natural Resources and Fisheries and Oceans Canada. Proposed restricted activity timing windows were assigned to avoid work during sensitive life history periods or life stages for all fish that may be present in each waterbody, including movements to spawning areas, spawning and egg incubation, or eggs and newly hatched fry. The restricted activity timing windows for each waterbody crossing will be finalized by the Ministry of Natural Resources during permitting. • For permanent and temporary waterbody crossing structures, the proposed restricted activity timing window will be applicable if: • Any work is completed below the high-water mark (e.g., installation or removal of fill or culverts, bridge supports below the high-water mark, one-time ford). • The waterbody is frozen and an ice bridge / snow fill is constructed. • Beaver dam removals are required. • For permanent and temporary waterbody crossing structures, the proposed restricted activity timing window will not be applicable: • If all work is completed above the high-water mark (e.g., installation or removal of a clear span bridge with no fill or supports below the high-water mark). • When using the existing and installed waterbody crossing structures, where no modifications are required.

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						• Avoid constructing in sensitive habitats (e.g., spawning areas, groundwater upwellings) where feasible. • Construct or install waterbody crossing structures in a manner that protects the banks from erosion, maintains downstream flows in the waterbody, and follows permits or authorizations issued for the Project from Fisheries and Oceans Canada and the Ministry of Natural Resources. • Fording of a waterbody is not permitted, unless approved by the Ministry of Natural Resources and Fisheries and Oceans Canada. As per Fisheries and Ocean Canada's Code of Practice, limit fording to a one-time event (over and back) and use only if an existing crossing at another location is not available or practical to use. If repeated crossings of the waterbody are required, a crossing structure will be installed. Permits are expected to be required from Ministry of Natural Resources for any use of a ford. • Complete instream construction in isolation of flowing water (i.e., use isolation methods for the installation and removal of culverts where surface water exists at the time of construction). • For isolations / diversions, maintain 100% downstream flow. • Use erosion resistant fill material below the high-water level within the floodplain of a waterbody. • Upon removal of the temporary crossing materials, return the waterbody banks to their original profile if needed and stabilize disturbed areas, as necessary, to prevent soil erosion. • Locate temporary access roads, staging areas, camps, and debris and / or timber stockpiles a minimum of 30 m away from the ordinary high-water mark of a waterbody, where possible. • Maintain buffer zones of 30 m around waterbodies and limit clearing of riparian vegetation to the extent practical and to the requirement of the access road and alignment clearing width only. • Install, monitor, and manage appropriate erosion and sedimentation control measures to minimize or avoid sediment mobilization from the disturbed area to drainages or waterbodies and in accordance with Ontario Provincial Standard Specifications Construction Specification for Temporary Erosion Control (Ministry of Transportation, 2021c) and Construction Specification for Temporary Sediment Control (2020). Adequate and appropriate erosion and sedimentation control materials will be on site and available prior to commencement of construction. • Turbidity and total suspended solids will be monitored according to Fisheries and Oceans Canada, and the Ministry of Natural Resources permit requirements and will follow the Canadian Council of Ministers of the Environment's Canadian Water Quality Guidelines for the Protection of Aquatic Life (Canadian Council of Ministers of the Environment, 1999).
FFH-01	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes to fish habitat quantity and quality through physical alterations of waterbodies	• Operations	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Not applicable	• Regularly inspect and maintain culverts and bridges to prevent blockages from forming and causing ponding or backwater effects. Where culverts and bridges are installed at fish-bearing waterbodies, follow Fisheries and Oceans Canada's Codes of Practice for debris removal activities (i.e., gradual removal such that flooding downstream, extreme flows downstream, release of suspended sediment, and fish stranding can be avoided). • Operate waterbody crossing structures in consideration of best management practices and environmental approval conditions, including

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						the Ontario Ministry of Natural Resources Environmental Guidelines for Access Roads and Water Crossings (1990) and Fisheries and Oceans Canada's Measures to Protect Fish and Fish Habitat (2023).
FFH-02	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes to fish habitat quantity and quality through changes to riparian vegetation	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Not applicable	• Follow the Construction mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies*. • Clear and revegetate the riparian zone following Fisheries and Oceans Canada's Measures to Protect Fish and Fish Habitat (2023), Ontario Provincial Standard Specification General Specification for Environmental Protection for Construction in and Around Waterbodies and on Waterbody Banks (Ministry of Transportation, 2025a), and the Ontario Ministry of Natural Resources' Environmental Guidelines for Access Roads and Water Crossings (1990), and Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales (2010a) and its associated Background and Rationale for Direction (2010b). • Maintain a 30 m riparian buffer around waterbodies, where feasible. • Do not use herbicides. • Consider the restricted activity timing windows for waterbodies for the timing of clearing riparian.
FFH-02	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes to fish habitat quantity and quality through changes to riparian vegetation	• Operations	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Not applicable	• Follow the Operations mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies*. • Maintain a 30 m riparian buffer around waterbodies, where feasible. • Do not use herbicide.
FFH-03	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Injury or mortality of fish from instream construction	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Not applicable	• Follow the Construction mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies*. • Instream Construction: • For isolations / diversions, appropriately screen water intakes or pumps to prevent entrainment or impingement of fish (Fisheries and Oceans Canada, 2023); follow measures for design and installation of intake end of pipe fish screens to protect fish (Fisheries and Oceans Canada, 2023). • Obtain a Licence to Collect Fish for Scientific Purposes from the Ministry of Natural Resources and have Aquatics Specialists rescue and relocate fish within the isolated workspace prior to construction in the isolated workspace.
FFH-04	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes in habitat quality from release of sediment at waterbody crossings	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Develop a Sediment and Erosion Control Plan in accordance with Ontario Provincial Standard Specifications Construction Specification for Temporary Erosion Control (Ministry of Transportation, 2021c) and Construction Specification for Temporary Sediment Control (Ministry of Transportation, 2020).	• Follow the Construction mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies* and Changes to fish habitat quantity and quality through changes to riparian vegetation. • Recontour disturbed areas to restore drainage patterns and the approximate pre-construction profile. • Postpone instream construction if excessive flows or flood conditions are present or anticipated. Resume activities when water levels have subsided or equipment / techniques suitable for conditions are deployed.

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						• To the extent practical, and while complying with all appropriate mitigation and enhancement measures, complete work below the high-water mark as quickly as possible to shorten the duration of disturbance. • Construct or install waterbody crossings in a manner that protects the banks from erosion, maintains downstream flows in the waterbody, and follows permits or authorizations issued for the Project from Fisheries and Oceans Canada and the Ministry of Natural Resources. • Avoid bank grading to accommodate temporary bridges where possible. Restrictions on grading may be required as part of waterbody crossing permits from Fisheries and Oceans Canada and the Ministry of Natural Resources. • Install, monitor, and manage appropriate erosion and sedimentation control measures to prevent sediment from reaching the waterbody prior to and during construction and in accordance with Ontario Provincial Standard Specifications Construction Specification for Temporary Erosion Control (Ministry of Transportation, 2021c) and Construction Specification for Temporary Sediment Control (2020). • Temporary erosion control measures must be: - Properly installed. - Installed before or immediately after initial disturbance. • Inspected and properly maintained (e.g., repaired, replaced or supplemented with functional materials) throughout construction until permanent erosion control is established or reclamation is complete.
FFH-04	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes in habitat quality from release of sediment at waterbody crossings	• Operations	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Develop and follow a Sediment and Erosion Control Plan.	• Follow the Operations mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies*. • Install, monitor, and manage appropriate erosion and sedimentation control measures to prevent sediment from reaching the waterbody prior to and during maintenance activities.
FFH-05	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes to fish habitat quantity and quality from the placement of waterbody crossing structures and changes in channel morphology	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Not applicable	• Follow the Construction mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies* and *Changes in habitat quality from release of sediment land disturbance during road construction at waterbody crossings*.
FFH-05	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes to fish habitat quantity and quality from the placement of waterbody crossing structures and changes in channel morphology	• Operations	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Not applicable	• Follow the Operations mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies*.
FFH-06	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes to fish survival, reproduction, and distribution from the placement of waterbody crossing structures, affecting fish access to habitats	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Waterbody Crossing: • Where a channel allows for fish passage, design and install culverts in fish-bearing waterbodies to allow for fish passage to Ontario Ministry of Natural Resources Environmental Guidelines for Access Roads and Water Crossings (1990) and Fisheries and Oceans Canada's Standards and Code of Practices and fish passage	• Follow the Construction mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies* and *Changes in habitat quality from release of sediment land disturbance during road construction at waterbody crossings*

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					guidelines (Katopodis and Gervais, 2016; Di Rocco and Gervais, 2024).	
FFH-06	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes to fish survival, reproduction, and distribution from the placement of waterbody crossing structures, affecting fish access to habitats	• Operations	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Not applicable	• Follow the Operations mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies.*
FFH-07	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes to fish habitat quantity and quality due to changes in hydrology or groundwater that may alter drainage patterns and increase or decrease drainage flows and surface water levels	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Develop and maintain surface water management and erosion control infrastructure to minimize potential for changes to infiltration rates.	• Follow the Construction mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies.*
FFH-07	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes to fish habitat quantity and quality due to changes in hydrology or groundwater that may alter drainage patterns and increase or decrease drainage flows and surface water levels	• Operations	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Not applicable.	• Follow the Operations mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies.*
FFH-08	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes to fish through blasting-related injuries or mortality to fish	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Prepare a Blasting and Communication Management Plan that is in accordance with Ontario Provincial Standard Specification *General Specifications for the Use of Explosives* (Ministry of Transportation, 2025b) and describes specific measures that would be implemented if blasting is required	• Follow the Construction mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies*. • Use explosives only if alternate methods of excavation to remove materials for foundation systems and roads are not feasible. • Complete blasting near fish-bearing waterbodies outside the proposed restricted activity timing window for all blasting operations. • For blasting operations, follow the overpressure and vibration guidelines outlined in in the Fisheries and Oceans Canada's *Measures to Protect Fish and Fish Habitat* (2023), Ontario Provincial Standard Specification *General Specifications for the Use of Explosives* (Ministry of Transportation, 2025b), and *Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters* (Wright and Hopky, 1998): • Overpressure guideline—Explosives are not to be detonated in or near fish habitat that produces, or is likely to produce, an instantaneous water pressure change (i.e., overpressure) greater than 100 kPa where fish are present. The overpressure guideline applies year-round in any fish-bearing waterbody near the blast. • Vibration guideline—Explosives are not to be detonated that produce, or are likely to produce, a peak particle velocity greater than 13 mm/s in a spawning bed during the period of egg incubation. The vibration guideline applies during the restricted activity timing window in the waterbody near the blast.

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FFH-08	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes to fish through blasting-related injuries or mortality to fish	• Operations	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Follow the Construction mitigation and enhancement measures outlined in *Changes to fish through blasting-related injuries or mortality to fish*	• Follow the operations mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies*. • Follow the Construction mitigation and enhancement measures outlined in *Changes to fish through blasting-related injuries or mortality to fish.*
FFH-09	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes to fish habitat quality from the deposition of air contaminants and fugitive dust emissions	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Prepare a Dust / Air Quality Management Plan prior to construction	• Follow the Construction mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies*. • Burn of slash piles subject to agreements with Indigenous communities, landowners, and to permits and approvals by appropriate regulatory agencies.
FFH-09	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes to fish habitat quality from the deposition of air contaminants and fugitive dust emissions	• Operations	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Prepare a Dust / Air Quality Management Plan.	• Follow the operations mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies*. • Implement dust control practices (e.g., wetting with water and implementation of speed limits), as required.
FFH-10	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes to fish survival and reproduction from improved public access to recreational angling areas	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Not applicable.	• Follow the Construction mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies*. • Decommission and rehabilitate temporary pits and quarries and the temporary infrastructure for construction including access roads, staging areas, camps, and debris and / or timber stockpiles at the end of construction. Pits and quarries will be rehabilitated (progressive and final rehabilitation) and surrendered in accordance with the *Aggregate Resources Act*. • Implement best management practices and regulations outlined by the Ministry of Natural Resources to reduce the spread of invasive species.
FFH-10	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes to fish survival and reproduction from improved public access to recreational angling areas	• Operations	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Not applicable.	• Follow the operations mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies.*
FFH-11	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes to fish survival and reproduction from spills of fuel or other materials	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Prepare and a Spill Prevention and Emergency Response Plan that describes specific measures that would be implemented if a spill occurred.	• Follow the Construction mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies.* • Have equipment for containing spills on site. Spill response kits will be provided in fuel and hazardous materials storage and handling facilities at temporary construction camps and temporary laydown areas, in onsite work areas, and / or in vehicles and equipment, and personnel will be trained in spill response practices and procedures. Spills and leaks will be contained and cleaned up as soon as possible following incidents. • Refuel, service, and maintain vehicles and equipment in designated areas at temporary construction camps and temporary laydown areas a minimum of 120 m from waterbodies.

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						• Wash, refuel, and service machinery to prevent any deleterious substances from entering a waterbody (Fisheries and Oceans Canada, 2023). • Store fuel and other materials for the machinery to prevent any deleterious substances from entering a waterbody (Fisheries and Oceans Canada, 2023). • Register aboveground storage tanks under, and in compliance with, applicable federal and provincial legislation. • Meet the federal *Transportation of Dangerous Goods Act* and *Ontario Technical Standards and Safety Act* (Government of Ontario, 2000) (Government of Canada, 1992) for the transportation, storage, and handling of fuels. • Have machinery and equipment arrive on site in a clean condition and inspect and maintain routinely to avoid fluid leaks. • Train individuals working on site and handling hazardous materials about best practices for the transportation of dangerous goods to avoid negatively affecting fish and fish habitat by introducing hazardous materials into the environment.
FFH-11	• Lake Sturgeon, Walleye, Brook Trout, Northern Pike, Lake Whitefish, and Burbot	• Changes to fish survival and reproduction from spills of fuel or other materials	• Operations	• Fisheries and Oceans Canada • Ministry of Natural Resources • Ontario Parks	• Not applicable.	• Follow the operations mitigation and enhancement measures outlined in *Changes to fish habitat quantity and quality through physical alterations of waterbodies*. • Meet the *Ontario Technical Standards and Safety Act* (Government of Ontario, 2000) and federal *Transportation of Dangerous Goods Act* (Government of Ontario, 1992) for the transport, storage, and handling of fuels required for maintenance. • Have machinery and equipment arrive on site in a clean condition and inspect and maintain routinely to avoid fluid leaks during maintenance. • Use mechanical or manual methods to clear vegetation; herbicide use is not permitted.
Groundwater and Geochemistry						
GW-01	• Groundwater	• Changes to groundwater quantity due to short-term water takings	• Construction • Operations	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• Design construction dewatering to minimize the amount of groundwater that has to be extracted. • Conduct site-specific hydrogeological studies for any groundwater sourced water supplies used for Project construction. • Efficient water processes, fixtures and systems to be used where practical to reduce water taking requirements. • Groundwater monitoring stations will be established at areas where large groundwater takings are expected or where potential for impacts on groundwater quality exists, such as pits, quarries, temporary construction camps, laydown yards, road constructed over peatland, and large structure foundations or road cuts / fills. • The groundwater monitoring stations will be located between the anticipated work area and nearby receptors such as wetlands, waterbodies, and seeps / springs. Multiple groundwater monitoring stations may be required at larger sites to assess effects on various or	• Groundwater removed from construction areas should be discharged locally and allowed to infiltrate the ground according to discharge permits. • Where possible, treated wastewater from groundwater sources should be returned to the local environment and allowed to infiltrate the ground according to discharge permits, to reduce the net taking of groundwater. • Groundwater monitoring to be conducted where required by permits or site-specific hydrogeological studies. • Groundwater monitoring stations established for the pre-construction monitoring programs will be maintained and monitored through construction. • Groundwater levels will be measured at the monitoring stations at least weekly during construction activities. During active groundwater takings, the nearby groundwater levels will be measured at least daily. • Groundwater quality will be sampled at the monitoring stations at least monthly for the same parameters as the pre-construction monitoring.

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					large receptors and the groundwater monitors should provide depth coverage to at least the expected water taking depth. • Groundwater levels will be measured at the monitoring stations at least monthly for 3 months prior to beginning groundwater taking. For pits and quarries which will be extracted below the water table under an Ontario *Aggregate Resources Act* permit, the groundwater monitoring program will be designed in accordance with the Aggregate Resources of Ontario: Technical Reports and Information Standards (Government of Ontario, 2023) in addition to the Project monitoring program. • Groundwater quality will be sampled at the monitoring stations at least monthly for 3 months prior to beginning construction work. The groundwater quality samples should be analyzed for general water quality parameters at minimum (such as., pH, temperature, conductivity, hardness, alkalinity, chloride, nitrate, nitrite, sulphate, phosphate, ammonia, total dissolved solids, dissolved organic carbon, calcium, copper, iron, magnesium, manganese, potassium, sodium, and zinc). Sampling for metal parameters will include both dissolved and total concentrations to assess the influence of suspended solids on the concentrations. Additional parameters of concern should also be sampled for where identified, for example sampling for volatile organic compounds near areas where fuel or chemical storage is located. • In addition to the above recommended pre-construction monitoring, at sites where construction activities will require permitting for dewatering, the groundwater monitoring will be enhanced on a site-by-site basis to support the required permitting studies.	
GW-02	• Groundwater	• Changes to groundwater quantity due to reduced or increased recharge	• Construction • Operations	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• Design Project drainage to allow for local infiltration of water. • Follow drainage best management practices such as those outlined in *Environmental Guide for Erosion and Sediment Control During Construction of Highway Projects* (Ministry of Transportation, 2007) and *Environmental Guidelines for Access Roads and Water Crossings* (Ontario Ministry of Natural Resources, 1990).	• Avoid infiltration of contaminated water or infiltration of water at locations that could be negatively impacted by raised groundwater levels. • Restore temporary construction infrastructure and sites to match pre-disturbance ground cover, topography, and vegetation conditions.
GW-03	• Groundwater	• Changes to groundwater quantity due to pit or quarry dewatering	• Construction • Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• All aggregate pits and quarries will be permitted by the Ministry of Natural Resources under the Ontario *Aggregate Resources Act* including technical studies to assess any extraction proposed below the water table.	• Industry best management practices for water taking from aggregate pits and quarries should be employed such as recording water takings volumes and times, discharging water back to the environment in a way that allows for replenishment of groundwater, onsite water reuse, and monitoring of discharge water quality. • Groundwater monitoring programs to be established in accordance with permit requirements and Project monitoring plans.

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GW-04	• Groundwater	• Changes to groundwater quantity due to road construction in peatland areas	• Construction • Operations	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• Road design should include equalization culverts and permeable base materials in peat land areas.	• The Community Access Road foundation design and construction should allow for groundwater flow through the peat to be maintained near to pre-construction rates. • A groundwater monitoring program will be implemented to identify if groundwater flow beneath the road in peatland areas is significantly restricted.
GW-05	• Groundwater	• Changes to groundwater quality due to accidental spills and leaks	• Construction • Operations	• Ministry of the Environment, Conservation and Parks • Transport Canada • Ontario Parks	• A Project-wide Spill Prevention and Emergency Response Plan will be developed.	• Fuels and hazardous materials should be stored and handled according to applicable regulations and best management practices such as the *Technical Standards and Safety Act* and the federal *Transportation of Dangerous Goods Act*. • A Project-wide Spill Prevention and Emergency Response Plan will be implemented. • All employees will be trained for spill prevention and response. • All machinery and equipment will be regularly inspected to maintain proper function and avoid any fluid leaks. • High-risk activities such as fuelling will be done only in designated areas where secondary containment and adequate spill containment measures are available. • The Community Access Road will be maintained to provincial standards to reduce the risk of accidents and associated spills.
GW-06	• Groundwater	• Changes to groundwater quality due to construction wastes and wastewater discharges	• Construction	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• Wastewater will be treated to meet provincial water quality guidelines such as *Provincial Water Quality Objectives* set by Ontario's Ministry of the Environment, Conservation and Parks (Ministry of the Environment, Conservation and Parks, 1994) and monitored to help confirm that it continues to meet the guidelines. • Discharges should be permitted where required under Environmental Compliance Approvals issued by Ministry of the Environment, Conservation and Parks. • A Waste Management Plan will be developed for the Project and include details for how wastes should be stored, handled, and disposed of.	• All staff working on the Project will be trained in and aware of the Project's Waste Management Plan. • Wastes generated by Project activities will be kept in designated containment areas according to applicable legislation (e.g., Ontario Regulation 347) until removed for final disposal. Any waste storage should be protected from precipitation contact that could cause contaminated runoff.
GW-07	• Groundwater	• Changes to groundwater quality due to blasting residues	• Construction • Operations	• Ministry of the Environment, Conservation and Parks • Transport Canada • Ontario Parks	• A Blasting and Communication Management Plan will be developed for the Project and include guidelines for explosives handling, storage, and loading to minimize explosives exposure to the environment and minimize explosives residue after blasting.	• Project blasting will be carried out according to applicable regulations such as the *Explosives Act* and the federal *Transportation of Dangerous Goods Act*. • A monitoring program for water quality in quarry sumps and downstream of blasting areas will be conducted and compared to action levels of contaminants of concern set based on regulatory guidelines and the sensitivity of downstream receptors. • Post-blast inspections will be regularly carried out to identify issues with blast design and detonations.
GW-08	• Groundwater	• Changes to groundwater quality due to exposure of acid-generating or metal leaching materials	• Construction • Operations	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• A geochemical monitoring program will be developed to test bedrock and soils in areas where they will be exposed by excavation. Acid base accounting analysis will be carried out and materials assessed for acid rock drainage potential based on the classification as outlined in Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials (Price, 2009).	• Any materials identified as at risk for acid generation or metal leaching will not be excavated or will be subject to site-specific mitigation and management plans to contain and control potential acid rock drainage if excavation is unavoidable.

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GW-09	• Groundwater	• Changes to groundwater quality due to road maintenance	• Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Transportation • Ontario Parks	• Not applicable	• Road maintenance will be carried out according to best management practices such as those outlined by *Best Practices for the Use and Storage of Chloride-Based Dust Suppressant* (Environment Canada, 2007) to reduce the use of chemicals for dust control and minimize runoff of chemicals to the environment. • Alternative chemicals or methods of dust control that pose less risk of runoff and infiltration should be considered for use.
GW-10	• Groundwater	• Changes to groundwater quantity due to pit or quarry dewatering • Changes to groundwater quantity due to road construction in peatland areas • Changes to groundwater quality due to construction wastes and wastewater discharges • Changes to groundwater quality due to blasting residues • Changes to groundwater quality due to road maintenance	• Construction • Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• See Groundwater mitigation measures GW01 to GW08.	• Monitoring programs of the Project and other activities / projects should share relevant monitoring data where predicted effects may overlap.
Peatlands						
PL-01	• Peatland Ecosystems	• Changes to peatland ecosystems as a result of direct peatland loss	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada	• Refine peatland mapping and field-verify the locations of sensitive or difficult to restore vegetation communities (e.g., fens and bogs) to inform micrositing of the Project footprint. • Complete an assessment of pit / quarry locations to identify potential effects due to changes in hydrogeology on peatland communities within the radius of influence for dewatering programs. • Prepare a Vegetation Restoration Plan that includes measures specific to peatland communities and peatland restoration, including peat stockpile management. This plan will be developed through engagement and consultation with Indigenous communities and integration of local Indigenous Knowledge and stewardship protocols. • Develop a pre-construction peatlands hydrological monitoring and water budget study to further inform the assessment of potential Project impacts on peatlands and the associated recommended mitigation measures (such as culvert size and locations) that will be confirmed at detail design.	• Implement a Vegetation Restoration Plan. • Perform clearing and construction activities in winter months where feasible, to minimize compaction of peat. A review of the project construction schedule will be completed during detail design to coordinate work based on environmental timing windows and timing restrictions. • Limit vegetation clearing to within the 100 m right-of-way and reduce to less than this width whenever and wherever possible: • Minimize clearing widths in peatland ecosystems to the extent feasible, given the difficulty of effective restoration of these ecosystems. • Adjust the alignment or clear off centre within the right-of-way where warranted, to minimize effects on peatland ecosystems. These details will be refined during detailed design, prior to construction. • Limit clearing of riparian vegetation (i.e., within 30 m of waterbodies) to the extent possible and to the requirement of the access road and alignment clearing width only. • Locate temporary access roads, staging areas, camps, and debris and / or timber stockpiles in less sensitive ecosystems (e.g., upland ecosystems), where feasible. Avoid peatland communities for temporary features wherever feasible. • Have Environmental Monitors and Indigenous Environmental Monitors onsite during construction to confirm that all mitigation measures are being implemented appropriately. Details regarding Environmental Monitors and their role during the project will be determined through the development of

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						the Environmental Protection Plan. Upon completion of construction, sand and gravel pits, including temporary access roads leading to the pits, will be rehabilitated (progressive and final rehabilitation) and surrendered in accordance with the Aggregate Resource Act, which will include backfilling, levelling, recompacting, and redistributing organic materials. Temporary access roads leading to temporary quarry areas will also be decommissioned. Temporary quarries not required for maintenance activities will be vegetated in accordance with the Rehabilitation Plan. Quarries maintained for operations will be blocked to discourage public use but facilitate access for ongoing road maintenance. The number of quarries required for maintenance are unknown at this time. • Develop and implement a Project-specific Environmental Protection Plan.
PL-02	• Peatland Ecosystems	• Changes to peatland ecosystems as a result of changes to hydrology	• Operations	• Ministry of Natural Resources • Fisheries and Oceans Canada	• Not applicable	• Avoid re-entry and disturbance of restored temporary access areas post-construction. • Design and implement a program to monitor for peatland condition in the vicinity of project activities. The program will include science-based thresholds or indicators of peatland condition based on research and established standards, like those presented in Minasny et. al, 2023, as well as mitigation and adaptive response plan to prevent long-term damage or carbon release. Details regarding the thresholds and indicators as well as the number of monitoring locations and the length of the monitoring period will be determined in subsequent Project phases. • Implement a program designed to monitor and manage restored peatland communities as well as any wetland offset areas. Details regarding the number of monitoring locations, level of effort and length of the monitoring period will be determined in subsequent Project phases, if any peatland communities are restored or created.
PL-03	• Peatland Ecosystems	• Changes to peatland ecosystems as a result of changes to hydrology	• Construction • Operations	• Ministry of Natural Resources • Fisheries and Oceans Canada	• During detail design, carefully consider placement of culverts in peatland environments with a particular emphasis on the installation of culverts in areas where the road runs perpendicular to the natural flow of surface water; and • Design a pre-, during- and post-construction monitoring program that assesses surface water movement and helps to confirm that pre-construction conditions are maintained to the extent feasible (Section 9).	• Have Environmental Monitors and Indigenous Environmental Monitors onsite during construction to confirm that all mitigation measures are being implemented appropriately. Details regarding Environmental Monitors and their role during the project will be determined through the development of the Environmental Protection Plan; • Design and implement a pre-, during- and post-construction monitoring program that assesses surface water movement and helps to confirm that pre-construction conditions are maintained to the extent feasible (Section 9); and • Implement adaptive management measures if drainage patterns are determined to be significantly altered. Adaptive management measures will be determined through the development of the Environmental Protection Plan.
PL-04	• Peatland Ecosystems	• Changes to peatland ecosystems as a result of changes to groundwater	• Construction • Operations	• Ministry of Natural Resources • Fisheries and Oceans Canada	• Construct the Community Access Road through peatland communities using a “floating road” construction methodology to allow for groundwater movement below and through the road embankment. This approach will involve: • Completing a detailed ground survey, characterizing the peat and local hydrology at detailed design. • Identifying site-specific, appropriate values for peat strength.	• Design and implement a pre-, during- and post-construction monitoring program that assesses surface and groundwater movement and allows for the maintenance of pre-construction conditions to the extent feasible (Section 9). This includes the creation of a monitoring program that involves geochemical testing on exposed bedrock and soils to assess the potential for acid rock drainage and / or metal leaching as it relates to methylmercury production in peatland communities present within the Construction Disturbance Area. The program will also monitor potential increases in methylmercury production related to changes in groundwater

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					• Using a geogrid base to act as a separator and strengthener between the road subgrade fill materials and the peat. • Using additional geogrid and geotextile materials in layers combined with road aggregate material above the embankment fill to form a mechanically stabilized layer. This layer will provide the required strength and stiffness for the road to perform during all seasons, including spring thaw. • Designing the Floating Road Plan, profile and cross-section for each road section based on context-sensitive design standards, geometry and loading. • Designing transitions between “floating road” sections, excavated and fill sections. • Scheduling construction to allow for primary settlement of the peat without risk of shear failure. • Monitoring the work through construction, measuring and recording lateral movement and settlements. Being prepared to adjust the design based on observation and monitoring. • During detailed design, carefully consider placement of culverts in peatland environments with a particular emphasis on the installation of culverts in areas where the road runs perpendicular to the natural flow of groundwater. • AEM Surveying to produce continuous peat depth mapping which is critical for construction planning such as identifying saturated or sensitive areas that may require specialized engineering solutions.	levels as a result of the construction of the Community Access Road. The program will include the following activities: • Locations of groundwater monitoring instruments (e.g., piezometers) will be established approximately every 1,000 m along sections of the road that will be constructed with the “floating road” construction methodology. • Monitoring locations will be established both up and downgradient of the future road to capture pre-, during and post-construction groundwater levels and movement patterns. Monitoring locations should be located away from equalization culverts. • Monitoring will occur three times annually (spring, summer, fall). • Details of the monitoring plan including the final placement of piezometers and the duration of monitoring will be developed and refined during detailed design. • Design and implement a program to monitor peatland community response to any potential changes in hydrogeology throughout construction (e.g., in the vicinity of dewatering activities and either side of “floating road” segments). • Have Environmental Monitors and Indigenous Environmental Monitors onsite during construction to confirm that all mitigation measures are being implemented appropriately. Details regarding Environmental Monitors and their role during the project will be determined through the development of the Environmental Protection Plan. • Implement adaptive management measures if groundwater flow patterns are determined to be significantly altered. Adaptive management measures will be determined through the development of the Environmental Protection Plan.
PL-05	• Peatland Ecosystems	• Changes to peatland ecosystems from the introduction and spread of invasive plant species	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada	• An Environmental Protection Plan will be developed, to prevent, detect, control (i.e., remove), and monitor areas with invasive species. The plan should also include the following measures.	• Implement all components of the Environmental Protection Plan. • Thoroughly inspect and clean construction equipment and vehicles prior to bringing them to the work area and when moving between work areas within the Project. Cleaning will be completed in accordance with the most up to date version of the Clean Equipment Protocol for Industry. Documentation of the results of each inspection will be a requirement of the Environmental Protection Plan. Additional recommendations for the cleaning of equipment (e.g., the use of specific cleaning stations and their location) will be determined through the development of the Environmental Protection Plan. • Contour disturbed areas to minimize soil and water erosion and encourage growth of native vegetation. • Limit off-road vehicle use by owner / operator during construction and operations. Inspections and maintenance activities that will include cleaning of off-road vehicles before and after each use to prevent the spread of invasive species. Recommendations related to the use of off-road vehicles will be determined at detail design and / or through the development of the Environmental Protection Plan. • Use seed mixes with appropriate native species for all seeding and restoration works. Seed mixes must be tested / certified to be free of

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
						invasive species. Native seed should be sourced from local populations whenever possible. • Use reduced disturbance techniques to prevent topsoil removal and preserve adequate substrate (e.g., use a low impact method to leave the surface vegetation root mat intact). • Follow Ontario Ministry of Transportation's Provincial Standard Specification 803 to avoid spreading invasive plant species. (Ministry of Transportation, 2023).
PL-06	• Peatland Ecosystems	• Changes to peatland ecosystems from the introduction and spread of invasive plant species	• Operations	• Ministry of Natural Resources • Environment and Climate Change Canada	• Not applicable.	• Require that the road owner / operator follows Ontario Ministry of Transportation's Provincial Standard Specification 803 to avoid spreading invasive plant species (Ministry of Transportation, 2023). • Remove and manage invasive species using manual and mechanical means. Herbicides will not be used. • Design and implement a post-construction invasive species monitoring program to detect invasive species presence and control (i.e., remove) new introductions. Details of the post-construction invasive species monitoring program will be included in the Environmental Protection Plan.
PL-07	• Peatland Ecosystems	• Changes to peatland ecosystems as a result of fragmentation and edge effects	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada	• Adjust the alignment or clear off centre within the right-of-way to minimize peatland fragmentation and the creation of new forested swamp edges, where feasible. These details will be refined during detailed design. • Construct temporary laydown areas and temporary construction camps on existing disturbed areas, wherever possible. The availability of existing disturbed areas for the construction of temporary laydown areas and temporary construction camps will be determined at detail design.	• Avoid grubbing along newly created forested swamp edges to promote natural regeneration which will quickly "seal" the new forested swamp edge. • Use reduced disturbance techniques during construction to prevent topsoil removal, preserve adequate substrate (e.g., use a low impact method to leave the surface vegetation root mat intact). Recommendations for reduced disturbance techniques will be described in detailed design. • Use progressive restoration onsite once temporary work areas (e.g., staging areas) are no longer needed. Progressive restoration techniques will be provided in the Environmental Protection Plan.
PL-08	• Peatland Ecosystems	• Changes to peatland ecosystems from the release of sediment	• Construction	• Ministry of Transportation • Fisheries and Oceans Canada	• Develop a Project-specific Environmental Protection Plan. • Develop a Project-specific Erosion and Sediment Control Plan. Erosion and sediment control measures will be developed in accordance with Ontario Provincial Standard Specifications (Ministry of Transportation, 2021a, 2021c). Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks and Ontario Ministry of Natural Resources, will be followed during Construction. Installed erosion and sediment control measures are not expected to affect the water movement to peatlands.	• Implement a Project-specific Environmental Protection Plan. • Regularly inspect and maintain Erosion and Sediment Control structures (e.g., sediment fences, rip-rap, or other sediment control structures) in accordance with Ontario Provincial Standard Specification 804 (Ministry of Transportation, 2021a) during all phases of the Project and modify measures as necessary. If control measures are not functioning properly, no further work will occur until the problem is resolved. • Stabilize disturbed areas through revegetation with native plant species or other appropriate means (e.g., erosion control blankets) following completion of the works. • Reschedule work or reduce / detour traffic in areas where soils are considered to be excessively wet or where there is a heavy rainfall risk. Areas where a reduction in traffic or detours are required are unknown at this design stage. • Earthworks should be avoided during periods of heavy rainfall, particularly in areas adjacent to watercourses and wetlands. • Mitigation measures as outlined in the *Fish & Fish Habitat* and the *Surface Water and Groundwater in the table above*..
PL-09	• Peatland Ecosystems	• Changes to peatland ecosystems from spills of fuel or other contaminants	• Construction • Operations	• Ministry of Natural Resources	• Develop a Project-specific Environmental Protection Plan.	• During operations, mitigation measures will include a posting and enforcement of a speed limit on the highway, which should reduce potential for chemical or hazardous material spills by reducing vehicle collision risk.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
		• Changes to peatland ecosystems as a result of the deposition of air contaminants • Changes to peatland ecosystems as a result of fugitive dust emissions		• Environment and Climate Change Canada • Ministry of Transportation		• Environmental approval conditions, permits, or authorizations issued for the Project construction, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks and Ontario Ministry of Natural Resources, will be followed during Construction.
PL-10	• Peatland Ecosystems	• Changes to peatland ecosystems as a result of increased public access	• Construction • Operations	• Ministry of Natural Resources • Environment and Climate Change Canada	• Minimize the Project footprint, vegetation clearing and access road requirements as much as possible (e.g., share / coordinate access, concentrate temporary activities spatially, leave habitat outside of scoped Construction Disturbance Area, selective clearing, and use existing access roads when available). Reducing cleared areas and the number of access roads through coordination, can reduce the number of cleared areas and access roads that will be present during and following construction that may provide access to previously inaccessible lands. • Develop a wildfire prevention plan for the construction works that outlines protocols for hot works or any other activity with the potential to trigger a fire, required fire suppression equipment, and a response plan if a fire is triggered.	• Limit the Project footprint, vegetation clearing and access road requirements to the extent feasible (e.g., share / coordinate access, concentrate temporary activities spatially, leave habitat outside the scoped Construction Disturbance Area, selective clearing, and use existing access roads when available); • Use progressive restoration onsite once temporary work areas (e.g., staging areas) are no longer needed and prevent ongoing use of inactive areas through combined use of physical control measures (rollback, removal of creek crossings, recontouring to surrounding topography, revegetation / reforesting and / or barriers at junctions with active access);Develop a policy for Project personnel while on shift or at temporary construction camps regarding any plant or timber harvesting activities.
PL-11	• Peatland Ecosystems	• Changes to peatland ecosystem carbon storage and flux	• Construction • Operations	• Ministry of Natural Resources • Environment and Climate Change Canada	• Locate temporary access roads, staging areas, camps, and debris and / or timber stockpiles in less sensitive ecosystems (e.g., upland ecosystems), where possible. Avoid peatland communities for temporary features wherever possible. • Prepare a Vegetation Restoration Plan that includes measures specific to peatland communities and peatland restoration, including peat stockpile management. These measures will be determined at detail design and/or when the Vegetation Restoration Plan is developed. This plan will be developed through engagement and consultation with Indigenous communities and integration of local Indigenous Knowledge and stewardship protocols.	• Decommission and rehabilitate temporary access roads, staging areas, camps, and debris and / or timber stockpiles following construction. Details related to peatland rehabilitation will be determined at detail design and/or when the Vegetation Restoration Plan is developed. • Construct the Community Access Road through peatland communities using a “floating road” construction methodology to allow for groundwater movement below and through the road embankment and to avoid the need for stripping of peat and the associated release of carbon. • Limit vegetation clearing to within the 100 m right-of-way and reduce to less than this width whenever and wherever possible: • Minimize clearing widths in peatland ecosystems given the difficulty of restoration efforts in these systems. • Adjust the alignment or clear off centre within the right-of-way where warranted, to minimize effects on peatland ecosystems. These details will be refined during detailed design, prior to construction. • Limit clearing of riparian vegetation (i.e., within 30 m of waterbodies) to the extent possible and to the requirement of the access road and alignment clearing width only.

Table 2: Land Commitments

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
Vegetation						
V-01	• All Vegetation Valued Components	• Changes to availability, distribution, composition and function of ecosystems and plant populations as a result of direct vegetation loss	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada	• Refine vegetation community mapping and field-verify the locations of sensitive or difficult to restore vegetation communities (e.g., organic wetlands) to inform the micrositing Project footprint. • Reassess the status of Black Ash protection during future study phases. If Schedule 1 of Ontario Regulation 6/24 has been updated to include the area of the Project, a search for Black Ash trees will be completed at the Ogoki River crossing. Other suitable habitat in the south portion of the Construction Disturbance Area may also need to be searched. The scope of this additional assessment will be determined in consultation with regulatory agencies. If Black Ash trees are anticipated to be affected by the Project, regulatory agencies (Ministry of the Environment, Conservation and Parks, Environment Canada and Climate Change) will be consulted on next steps. • Consult with Ontario Parks at detail design to determine permitting, mitigation and / or compensation / offsetting expectations for direct impacts to the Albany River Provincial Park. • Consult with Ontario Parks at detail design to determine permitting, mitigation and / or compensation / offsetting expectations for impacts to Critical Landform / Vegetation Associations. • Locate temporary access roads, staging areas, camps, and debris and / or timber stockpiles away from known Traditional Use Plant harvesting areas, where possible. • Complete an assessment of pit / quarry locations to identify potential effects due to changes in hydrogeology / hydrology on vegetation communities within the radius of influence for dewatering programs. • Prepare a Vegetation Management Plan at detail design that contains measures to protect rare plants, including protocols specific to Black Ash (e.g., commitments to Emerald Ash Borer prevention measures and long-term surveillance). In the event a rare plant species is encountered unexpectedly, or cannot be avoided, the rare plant protection measures outlined in the Vegetation Management Plan will be implemented. • Prepare a Vegetation Restoration Plan;. This plan will be developed through engagement and consultation with Indigenous communities and	• Prepare a program designed to monitor any rare plant, or species at risk protection measures that have been implemented (e.g., check for damage or failure of protection fencing and make repairs). • Perform clearing and construction activities in winter months where feasible. • Limit vegetation clearing to within the 100 m right-of-way and reduce to less than this width to the extent possible. • Minimize clearing widths in more sensitive ecosystems (e.g., riparian ecosystems) and more difficult to restore vegetation community groups (e.g., fen and bog) to the extent possible. • Adjust the alignment or clear off centre within the right-of-way where warranted, to minimize effects on more sensitive or difficult to restore vegetation communities. These details will be refined during detailed design, prior to construction. • Limit clearing of riparian vegetation (i.e., within 30 m of waterbodies) to the extent possible and to the requirement of the access road and alignment clearing width only. • Locate temporary access roads, staging areas, camps, and debris and / or timber stockpiles in less sensitive ecosystems (e.g., upland ecosystems), where possible. Avoid peatland communities for temporary features wherever feasible. • Have Environmental Monitors and Indigenous Environmental Monitors onsite during construction to confirm that all mitigation measures are being implemented appropriately. Details regarding Environmental Monitors and their role during the project will be determined through the development of the Environmental Protection Plan. • Upon completion of construction, sand and gravel pits, including temporary access roads leading to the pits will be rehabilitated (progressive and final rehabilitation) and surrendered in accordance with the *Aggregate Resource Act*, which will include backfilling, levelling, recompacting, and redistributing organic materials. Temporary access roads leading to temporary quarry areas will also be decommissioned. Temporary quarries not required for maintenance activities will be vegetated in accordance with the Rehabilitation Plan. Quarries maintained for operations will be blocked to discourage public use but facilitate access for ongoing road maintenance. The number of quarries required for maintenance are unknown at this time.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
					integration of local Indigenous Knowledge and stewardship protocols. • Include the seeding and / or planting of Traditional Use Plants in the Vegetation Restoration Plan.	
V-02	• All Valued Vegetation Components	• Changes to availability, distribution, composition and function of ecosystems and plant populations as a result of direct vegetation loss	• Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada	• Prepare and a Vegetation Management Plan to keep vegetation from interfering with the safe and reliable operation and maintenance of the road.	• Avoid re-entry and disturbance of restored temporary access areas post-construction. • Implement a program designed to monitor and manage rehabilitated and restored vegetation communities as well as any wetland offset areas. Details regarding the number of monitoring locations, level of effort and length of the monitoring period will be determined in subsequent Project phases.
V-03	• All Valued Vegetation Components	• Changes to availability, distribution, composition and function of ecosystems and plant populations as a result of changes to hydrology	• Construction • Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada	• Design a pre-, during and post-construction monitoring program that assesses surface movement and helps to confirm that pre-construction conditions are maintained to the extent feasible (Section 9). Implement pre-construction monitoring.	• Mitigation measures as outlined in the *Surface Water Technical Support Document* (Appendix F). • Implement a construction and post-construction monitoring program that assesses surface movement and helps to confirm that pre-construction conditions are maintained to the extent feasible (Section 9). • implement a program to monitor vegetation community response to any potential changes in hydrology throughout construction (e.g., in the vicinity of dewatering activities). • Implement adaptive management measures if drainage patterns are determined to be significantly altered. Adaptive management measures will be determined through the development of the Environmental Protection Plan.
V-04	• All Valued Vegetation Components	• Changes to availability, distribution, composition and function of ecosystems and plant populations as a result of changes to groundwater	• Construction • Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada	• Construct the Community Access Road through peatland communities using a “floating road” construction methodology to allow for groundwater movement below and through the road embankment. This approach will involve: - Completion of a detailed ground survey, characterizing the peat and local hydrology at detailed design. - Site-specific identification of appropriate values for peat strength. - Use of a geogrid base to act as a separator and strengthener between the road subgrade fill materials and the peat. - Use of additional geogrid and geotextile materials in layers combined with road aggregate material above the embankment fill to form a mechanically stabilized layer. This layer will provide the required strength and stiffness for the road to perform during all seasons, including spring thaw. • Design the Floating Road Plan, profile and cross-section for each road section based on context-sensitive design standards, geometry and loading.	• Design and implement post-construction monitoring program that assesses surface and groundwater movement and helps to confirm that pre-construction conditions are maintained to the extent feasible (Section 9). Locations of groundwater monitoring instruments (e.g., piezometers), will be determined in consultation with vegetation ecologists and Indigenous communities so that effects on vegetation Valued Components are considered when determining their placement. • Design and implement a program to monitor vegetation community response to any potential changes in hydrogeology throughout construction (e.g., in the vicinity of dewatering activities). • Implement adaptive management measures if groundwater flow patterns are determined to be significantly altered. • Schedule construction to allow for primary settlement of the peat without risk of shear failure. • Monitor the work through construction, measuring and recording lateral movement and settlements. Be prepared to adjust the design based on observation and monitoring.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
					• Provide transitions between floating road sections, excavated and fill sections. • Airborne Electromagnetic (AEM) Surveying to produce continuous peat depth mapping which is critical for construction planning such as identifying saturated or sensitive areas that may require specialized engineering solutions. • A program designed to monitor groundwater on both sides of the Community Access Road and in areas of dewatering programs to establish pre-construction groundwater levels, as well as monitor groundwater levels during construction and post-construction. This program will include pre-construction, construction, and post-construction components. This also includes the creation of a monitoring program to include further geochemical testing on exposed bedrock and soils and determine the potential for acid rock drainage and / or metal leaching as it relates to methylmercury production in peatland communities present within the Construction Disturbance Area. The program will also monitor potential increases in methylmercury production related to changes in groundwater levels as a result of the construction of the Community Access Road. At a minimum, the program will include the following activities. Monitoring requirements will be further developed during detail design. • Monitoring locations will be established both up- and downgradient of the future road to capture pre-construction, construction, and post-construction groundwater levels and movement patterns. Monitoring locations should be located away from equalization culverts.	
V-05	• All Vegetation Valued Components	• Changes to availability, distribution, composition and function of ecosystems and plant populations as a result of introduction and spread of invasive plant species	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada	• Develop an Environmental Protection Plan during construction to prevent, detect, control (i.e., remove), and monitor areas with invasive species. The plan will also include the following measures: - Thoroughly inspect and clean construction equipment and vehicles prior to bringing them to the work area and when moving between work areas within the Project. Cleaning will be completed in accordance with the most up to date version of the Clean Equipment Protocol for Industry (Halloran et al., 2013). Documentation of the results of each inspection will be a requirement of the Environmental Protection Plan. Additional recommendations for the cleaning of equipment (e.g., the use of specific cleaning stations and their location) will	• Implement all components of the Environmental Protection Plan.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
					be determined through the development of the Environmental Protection Plan. - Use reduced disturbance techniques to prevent topsoil removal and preserve adequate substrate . - Contour disturbed areas to minimize soil and water erosion and encourage growth of native vegetation. - Limit off-road vehicle use by owner / operator during construction and operations. Inspections and maintenance activities will include cleaning of off-road vehicles before and after each use to prevent the spread of invasive species. Recommendations related to the use of off-road vehicles will be determined at detail design and / or through the development of the Environmental Protection Plan. - Use seed mixes with appropriate native species for all seeding and restoration works. Seed mixes must be tested / certified to be free of invasive species. Native seed should be sourced from local populations whenever possible. - Follow Ontario Provincial Standard Specification 803 (Ministry of Transportation, 2023) to avoid spreading invasive plant species.	
V-06	• All Vegetation Valued Components	• Changes to availability, distribution, composition and function of ecosystems and plant populations as a result of introduction and spread of invasive plant species	• Operations	• Ministry of Transportation	• Not applicable.	• Require that the road owner / operator follows *Provincial Standard Specification 803* (Ministry of Transportation, 2023) to avoid spreading invasive plant species. • Remove and manage invasive species using manual and mechanical means. Herbicides will not be used. • Design and implement post-construction invasive species monitoring program that aims to detect invasive species presence and control (i.e., remove) new introductions. Details of the post-construction invasive species monitoring program will be included in the Environmental Protection Plan.
V-07	• All Vegetation Valued Components	• Changes to availability, distribution, composition and function of ecosystems and plant populations as a result of fragmentation and edge effects	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada	• Adjust the alignment or clear off centre within the right-of-way to minimize forest fragmentation and the creation of new forest edges, where feasible. These details will be refined during detailed design. • Construct temporary laydown areas and temporary construction camps on existing disturbed areas, wherever possible. The availability of existing disturbed areas for the construction of temporary laydown areas and temporary construction camps will be determined at detailed design.	• Avoid grubbing along newly created forest edges to promote natural regeneration which will quickly “seal” the new forest edge. • Use reduced disturbance techniques during construction to prevent topsoil removal, preserve adequate substrate (e.g., use low impact method to leave surface vegetation root mat intact until a site is proven for further development). • Use progressive restoration onsite once staging areas are no longer needed. Progressive restoration techniques will be provided in the Environmental Protection Plan.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
V-08	• All Vegetation Valued Components	• Changes to availability, distribution, composition and function of ecosystems and plant populations as a result of release of sediment	• Construction • Operations	• Ministry of Transportation • Fisheries and Oceans Canada	• Mitigation measures have been noted above.	• Regularly inspect and maintain Erosion and Sediment Control structures (e.g., sediment fences, rip-rap or other sediment control structures) in accordance with Ontario Provincial Standard Specification 804 (Ministry of Transportation, 2021a) during all phases of the Project and modify measures as necessary. If control measures are not functioning properly, no further work will occur until the problem is resolved. • Stabilize disturbed areas through revegetation with native plant species or other appropriate means (e.g., erosion control blankets) following completion of the works. • Reschedule work or reduce / detour traffic in areas where soils are considered to be excessively wet or where there is a heavy rainfall risk. Areas where a reduction in traffic or detours are required are unknown at this design stage. • Earthworks should be avoided during periods of heavy rainfall, particularly in areas adjacent to watercourses and wetlands.
V-09	• All Vegetation Valued Components	• Changes to availability, distribution, composition and function of ecosystems and plant populations as a result of spills of fuel or other contaminants	• Construction • Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada	• Mitigation measures have been noted above.	• Adherence to federal and provincial regulations and guidelines regarding fuel and residue, chemical product, petroleum product, and hazardous substance collection and storage, use and handling, and disposal and treatment, such as the federal *Transportation of Dangerous Goods Act* (Government of Canada, 1992), provincial *Dangerous Goods Transportation Act* (Government of Ontario, 1990h), and the provincial *Environmental Protection Act* (Government of Ontario, 1990f).
V-10	• All Vegetation Valued Components	• Changes to availability, distribution, composition and function of ecosystems and plant populations as a result of the deposition of air contaminants and fugitive dust emissions	• Construction • Operations	• Ministry of Transportation	• Not applicable	• Refer to mitigations measures for Air Quality.
V-11	• All Vegetation Valued Components	• Changes to availability, distribution, composition and function of ecosystems and plant populations as a result of increased public access	• Construction • Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada	• Limit the Project footprint, vegetation clearing and access road requirements to the extent feasible (e.g., share / coordinate access, concentrate temporary activities spatially, leave habitat outside of scoped Construction Disturbance Area, selective clearing, use existing access roads when available). Reducing cleared areas and the number of access roads through coordination, can reduce the number of cleared areas and access roads that will be present during and following construction that may provide access to previously inaccessible lands. • Develop a wildfire prevention plan for the construction works that outlines protocols for hot works or any other activity with potential to trigger a fire, required fire suppression equipment, and a response plan if a fire is triggered.	• Use progressive restoration onsite once staging areas are no longer needed and prevent ongoing use of inactive areas through combined use of physical control measures (rollback, remove of creek crossings, recontouring to surrounding topography, revegetation / reforesting and / or barriers at junctions with active access). • Develop a policy for Project personnel while on shift or at temporary construction camps in regards to any plant or timber harvesting activities. • Install access controls (e.g., gates and boulders) to control public vehicle travel on some temporary access routes and trails. Marten Falls First Nation continues to engage in discussions with the Province regarding the ownership and future operations and maintenance of the Community Access Road. Access and ownership including gating security / ID system will require further dialogue between the communities and the Province. • Install signage at regular intervals stating that any dumping is prohibited.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
Wildlife						
WILDLIFE-01	• All Wildlife Valued Components	• **Introduction and spread of invasive plant species** - Introduction of invasive plants from Project activities can affect plant community composition, which can affect wildlife habitat availability and distribution	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks	• Prepare the environmental monitoring program that will contain mitigation measures to control invasive plant species.	• Implement the environmental monitoring program, including mitigation for invasive plant species. • A comprehensive list of mitigation measures to control invasive plant species during Construction of the Project is provided in the Vegetation ID.
WILDLIFE-01	• All Wildlife Valued Components	• **Introduction and spread of invasive plant species -** Introduction of invasive plants from Project activities can affect plant community composition, which can affect wildlife habitat availability and distribution	• Operations	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks	• Not applicable	• As per the Ministry of Transportation's *Weed Control Maintenance Best Practice* (MBP-320), invasive plant species will be controlled using a combination of biological, chemical, cultural, manual, and mechanical control methods during operations (Ontario Ministry of Transportation, 2003).
WILDLIFE-02	• All Wildlife Valued Components	• **Emissions of criteria air contaminants—**Deposition of criteria air contaminant emissions (e.g., potential acid inputs) may change soil quality and vegetation and affect wildlife habitat availability and distribution.	• Construction	• Ministry of Transportation	• Potential mitigation measures outlined in the Ontario Ministry of Transportation's Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions of Provincial Transportation Projects (Ontario Ministry of Transportation, 2020) may be implemented during Detail Design, if feasible. • Prepare the environmental monitoring program that will contain mitigation measures to control dust and air emissions.	• Implement the environmental monitoring program, including mitigation measures to control dust and air emissions. • A comprehensive list of mitigation measures that will be implemented to limit air particulate emissions during Construction is provided in Atmospheric Environment below.).
WILDLIFE-02	• All Wildlife Valued Components	• **Emissions of criteria air contaminants—**Deposition of criteria air contaminant emissions (e.g., potential acid inputs) may change soil quality and vegetation and affect wildlife habitat availability and distribution.	• Operations	• Ministry of Transportation	• Not applicable	• Implement the environmental monitoring program, including mitigation measures to control dust and air emissions. • A comprehensive list of mitigation measures that will be implemented to limit air particulate emissions during operations is provided in Atmospheric Environment below.
WILDLIFE-03	• All Wildlife Valued Components	• **Fugitive dust emissions—** Deposition of dust particulates may change soil and vegetation quality and affect wildlife habitat availability and distribution.	• Construction	• Ministry of Transportation	• Potential mitigation measures outlined in the Ontario Ministry of Transportation's *Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions of Provincial Transportation Projects* (Ontario Ministry of Transportation, 2020) may be implemented during Detail Design, if feasible. • Prepare the environmental monitoring program that will contain mitigation measures to control dust and air emissions.	• Implement the environmental monitoring program, including mitigation measures to control dust and air emissions.
WILDLIFE-03	• All Wildlife Valued Components	• **Fugitive dust emissions—** Deposition of dust particulates may change soil	• Operations	• Ministry of Transportation	• Not applicable	• Implement the environmental monitoring program, including mitigation measures to control dust and air emissions.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
		and vegetation quality and affect wildlife habitat availability and distribution.				
WILDLIFE-04	• All Wildlife Valued Components	• **Erosion and sedimentation—**Vegetation clearing, earth moving, pit and quarry development and other Project activities can result in the release of sediment, which may change the composition and function of vegetation communities and affect wildlife habitat availability and distribution.	• Construction	• Ministry of Transportation • Fisheries and Oceans Canada • Ontario Parks	• Prepare the environmental monitoring program that will contain mitigation measures to control erosion and sedimentation. • Erosion and sediment control measures will be developed in accordance with Ontario Provincial Standard Specifications for erosion and sediment control measures (Ministry of Transportation, 2021a, 2021b). • The Ministry of Transportation Environmental Guide for Erosion and Sediment Control During Construction of Highway Projects will be consulted during the development of the erosion and sediment control measures.	• Implement the environmental monitoring program, including mitigation measures to control erosion and sedimentation during Construction. • Erosion and sediment control measures will be implemented in accordance with Ontario *Provincial Standard Specifications for Erosion and Sediment Control Measures* (Ministry of Transportation, 2021a, 2021b). • A comprehensive list of mitigation measures that will be implemented during Construction is provided in Vegetation and Surface Water above.
WILDLIFE-04	• All Wildlife Valued Components	• **Erosion and sedimentation—**Vegetation clearing, earth moving, pit and quarry development and other Project activities can result in the release of sediment, which may change the composition and function of vegetation communities and affect wildlife habitat availability and distribution.	• Operations	• Ministry of Transportation • Fisheries and Oceans Canada • Ontario Parks	• Not applicable	• Implement the environmental monitoring program, including mitigation measures to control erosion and sedimentation during operations. • Erosion and sediment control measures will be implemented in accordance with Ontario *Provincial Standard Specifications for erosion and sediment control measures* (Ministry of Transportation, 2021a, 2021b). • The mitigation measures established and refined using adaptive management during Project Construction should be maintained during operations. • Mitigation identified in the Ministry of Transportation's Maintenance Quality Standards and Maintenance Best Practices for highway maintenance (Ministry of Transportation, 2003) will be implemented to minimize erosion and sedimentation during operations. • A comprehensive list of mitigation measures that will be implemented during operations is provided in and Surface Water above.
WILDLIFE-05	• All Wildlife Valued Components	• **Changes in surface water quantity**—Alteration of surface water drainage patterns, flows and levels that can cause changes to soils and vegetation, which can affect wildlife habitat availability and distribution.	• Construction	• Ministry of the Environment, Conservation and Parks • Fisheries and Oceans Canada • Ontario Parks	• A comprehensive list of mitigation measures to limit changes to surface water quantity during Detail Design is provided in Surface Water above.	• A comprehensive list of mitigation measures to limit changes to surface water quantity during Construction is provided in Surface Water above.
WILDLIFE-05	• All Wildlife Valued Components	• **Changes in surface water quantity**—Alteration of surface water drainage patterns, flows and levels that can cause changes to soils and vegetation, which can	• Operations	• Ministry of the Environment, Conservation and Parks • Fisheries and Oceans Canada • Ontario Parks	• Not applicable	• The mitigation measures established and refined using adaptive management during Project Construction should be maintained during operations. • Follow *Ontario Provincial Standard Specification 411* (Ministry of Transportation, 2022) and regularly inspect and maintain culverts and bridges.

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		affect wildlife habitat availability and distribution.				• A comprehensive list of mitigation measures to limit changes to surface water quantity during Construction is provided in the Surface Water above.
WILDLIFE-06	• All Wildlife Valued Components	• **Changes in surface water quality**—Changes in surface water quality from Project activities could adversely affect habitat availability and distribution.	• Construction	• Ministry of the Environment, Conservation and Parks • Fisheries and Oceans Canada • Ontario Parks	• Mitigation measures have been noted above.	• Mitigation measures have been noted above.
WILDLIFE-06	• All Wildlife Valued Components	• **Changes in surface water quality**— Changes in surface water quality from Project activities could adversely affect habitat availability and distribution.	• Operations	• Ministry of the Environment, Conservation and Parks • Fisheries and Oceans Canada • Ontario Parks	• Not applicable	• The mitigation measures established and refined using adaptive management during Project Construction should be maintained during operations. • During the winter periods, sand will be used on the Community Access Road for de-icing instead of road salt.
WILDLIFE-07	• All Wildlife Valued Components	• **Changes to groundwater—** Alteration of groundwater drainage and infiltration patterns, flows, and levels that can cause changes to soils and vegetation, which can affect wildlife habitat availability and distribution.	• Construction	• Ministry of the Environment, Conservation and Parks • Fisheries and Oceans Canada • Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Mitigation measures have been noted above.	• Mitigation measures have been noted above.
WILDLIFE-07	• All Wildlife Valued Components	• **Changes to groundwater**— Alteration of groundwater drainage and infiltration patterns, flows, and levels that can cause changes to soils and vegetation, which can affect wildlife habitat availability and distribution.	• Operations	• Ministry of the Environment, Conservation and Parks • Fisheries and Oceans Canada • Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Not applicable	• Mitigation measures have been noted above.
WILDLIFE-08	• All Wildlife Valued Components	• **Increase in wildlife attractants**— Attraction of wildlife to the Project site (e.g., food waste, sewage, petroleum-based products, dust suppressants, explosive powder, site runoff ponds) may increase human-wildlife interactions and change predator-prey relationships, which can affect animal survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• Prepare an Environmental Protection Plan that includes policies and actions anticipated to mitigate the attraction of wildlife to the Construction Disturbance Area, particularly near the temporary construction staging areas and temporary construction camps. • Prepare a Waste Management Plan that describe the appropriate management of solid, liquid and hazardous waste, including the following: - Construction-related garbage, debris, and surplus materials.	• Implement the Environmental Monitoring Program, including policies and actions for handling and storage of waste as well as management of materials and stockpiles. • Construction staff will be educated about hazards of littering and feeding wildlife. A no littering policy will be implemented and enforced. • All work areas will be clear of any attractants such as food scraps and food containers. • Feeding and harassment of wildlife on site will be prohibited.

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					- Hazardous materials such as used oil, filter and grease cartridges, lubrication containers. - Domestic garbage and camp waste (i.e., food and grey water). Portable, secure, solid waste receptacles will be provided on work sites, temporary laydown areas and temporary construction camps and periodically emptied.	• Roadkill will be cleaned up during construction and operation following best management practices outlined by Ontario's Ministry of Transportation. • Collect domestic (e.g., food) and industrial (e.g., used oil and lubricants) waste and store temporarily in wildlife-proof containers. Transport all waste offsite for recycling or disposal at a licensed disposal facility. • Potentially toxic materials that attract wildlife will be stored in secure areas inaccessible to wildlife (e.g., buildings, storage areas surrounded by wildlife-proof fencing), and toxic materials will be monitored continuously when removed from storage until they are used or returned to storage to prevent wildlife accessing and ingesting the materials. • Empty chemical toilets on site regularly by a licensed sewage-handling contractor.
WILDLIFE-08	• All Wildlife Valued Components	• **Increase in wildlife attractants**—Attraction of wildlife to the Project site (e.g., corvids to food waste or raptors to roadkill) may increase human-wildlife interactions and change predator-prey relationships, which can affect wildlife survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• As per the Ministry of Transportation's *Debris Control Maintenance Quality Standard* (MQS-331), debris less than 1 m in diameter, including roadkill, will be removed within 48 hours; debris greater than 1 m in diameter will be removed as detected (Ministry of Transportation, 2003). • Generally, roadkill will be removed from the effects assessment Construction Disturbance Area and relocated to adjacent brush areas, as per the *Waste and Excess Materials Management Environmental Protection* (EP-9) requirements in the Ministry of Transportation's *Maintenance Manual* (Ministry of Transportation, 2003). As per the *Waste and Excess Materials Management Environmental Protection* requirements in the *Maintenance Manual*, depending on the location and weather at the time of roadkill removal, burial of small mammals occur in the roadside ditches, if this activity is permitted. • Rest areas will be available every 50 km along the road during operations. The rest areas will be staggered every 25 km, alternating on each side of the highway. These rest areas will contain waste receptacles. As per the Ministry of Transportation's Rest Area/Picnic Site Maintenance Best Practice (MBP-325), during the rest areas operating season (i.e., months during the year when temperatures remain above 0°C and closing no sooner than October 15), litter in waste receptacles will be removed from rest areas when waste receptacles are 75% full (Ministry of Transportation, 2003).
WILDLIFE-9	• All Wildlife Valued Components	• **Blasting and associated fly rock**—May result in injury or mortality to wildlife.	• Construction	• Ontario Ministry of the Environment, Conservation and Parks • Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Prepare a Blasting and Communication Management Plan that is in accordance with Ontario Provincial Standard Specification *General Specifications for the Use of Explosives* (Ministry of Transportation, 2025b) and describes specific measures that would be implemented if blasting is required. • Prepare an Environmental Protection Plan that includes policies and actions for avoiding and	• Implement the environmental monitoring program during Construction, including policies and actions for avoiding and minimizing the risks of blasting and blasting materials to wildlife. • Blasting work will be completed as quickly as possible to shorten the duration of disturbance. • Quarry blasting, rock crushing and screening, the use of heavy equipment, and other activities that generate loud noises will not be permitted within 4 km of confirmed or suspected wolverine den sites during the wolverine denning season (January 15 to May 31). If timing windows cannot be adhered to, follow environmental

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					minimizing the risks of blasting and blasting materials to wildlife.	approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks, and Ontario Ministry of Natural Resources. • Open excavations and blasting areas will be fenced off if left unsupervised to avoid injury and mortality of wildlife. • A buffer zone will be placed around the perimeter of blasting activities and surrounding forested habitat as described in the Blasting Management Plan.
WILDLIFE-9	• All Wildlife Valued Components	• **Blasting and associated fly rock**—May result in injury or mortality to wildlife.	• Operations	• Ontario Ministry of the Environment, Conservation and Parks • Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Not applicable	• Implement the environmental monitoring plan during operations, including policies and actions for avoiding and minimizing the risks of blasting and blasting materials to wildlife.
WILDLIFE-10	• All Wildlife Valued Components	• **Chemical or hazardous material spill**—(E.g., petroleum products, ammonium nitrate) on site or along access or haul roads can affect wildlife survival and reproduction.	• Construction	• Ontario Ministry of the Environment, Conservation and Parks • Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Prepare a Spill Prevention and Emergency Response Plan that describes specific measures that would be implemented if a spill occurred.	• Implement the Spill Prevention and Emergency Response Plan that describes specific measures if a spill occurs. • Adhere to federal and provincial regulations and guidelines regarding hazardous substance collection and storage, use and handling, and disposal and treatment, such as the federal *Transportation of Dangerous Goods Act*, provincial *Dangerous Goods Transportation Act*, and the provincial *Environmental Protection Act*. Locate project infrastructure systems away from key habitats (i.e., critical habitat, biophysical attributes as defined in Federal Recovery Strategy, Significant Wildlife Habitat) as much as possible. • The transportation, storage, and handling of fuels will be in compliance with the *Technical Standards and Safety Act* (Government of Ontario, 2000) and federal *Transportation of Dangerous Goods Act* (Government of Canada, 1992).
WILDLIFE-10	• All Wildlife Valued Components	• **Chemical or hazardous material stored on the Project site, or spills**—(E.g., petroleum products, ammonium nitrate) on site or along access or haul roads can affect wildlife survival and reproduction.	• Operations	• Ontario Ministry of the Environment, Conservation and Parks • Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Not applicable	• Meet the federal *Transportation of Dangerous Goods Act*, provincial *Dangerous Goods Transportation Act*, and the provincial *Environmental Protection Act* for the transport, storage, and handling of fuels required for operations. • Commercial vehicles who are transporting dangerous goods on the Community Access Road should be adhering to the federal *Transportation of Dangerous Goods Act* and provincial *Dangerous Goods Transportation Act.*
WILDLIFE-11	• Bats - Little Brown Myotis and Northern Myotis	• **Habitat loss and alteration —**The direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bat abundance and distribution.	• Construction	• Ontario Ministry of the Environment, Conservation and Parks • Environment and Climate Change Canada • Ontario Parks	• An Environmental Protection Plan and a Cleanup and Reclamation Plan will be developed. Reclamation plans will be confirmed through engagement with Indigenous communities, the Ministry of Natural Resources, the Ministry of the Environment, Conservation, and Parks Species at Risk Branch, and local foresters.	• Temporary access roads and trails, construction camps, turnaround areas, waterbody crossings and temporary laydown areas will be reclaimed at the end of construction. • Retain compatible species (e.g., shrub vegetation, compatible trees, and coarse woody debris) where practicable and where safe to do so.

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					• During Detail Design, efforts will be made to minimize habitat loss and alteration to the extent possible through micrositing to avoid high-quality habitats and sensitive areas for bat species at risk, to the extent feasible. • The following mitigation measures will be considered during Detail design (i.e., incorporated onto engineering drawings and considered in construction scheduling, where appropriate): - Limit the Project footprint to the extent feasible. - Use existing access roads where possible. - Buffer zones of 30 m will be maintained around waterbodies, clearing of riparian vegetation will be limited to the extent practicable and to the requirement of the access road and alignment clearing width only. - The timing of the bat maternity roost season (May 1 to September 30) will be considered when planning tree removals. • Offsetting measures developed as part of the Preliminary Biodiversity Offset Plan (Appendix AB) will be further developed for the Project to provide a net positive outcome for little brown myotis and northern myotis. The Offset Plan will be developed following engagement and consultation with Indigenous communities, Environment and Climate Change Canada, and Ontario Ministry of the Environment Conservation and Parks.	• Avoid clearing maternity roost habitat during the bat maternity roosting period (May 1 to September 30). If potential maternity roost habitat is to be removed during the roosting period, it will be subject to the *Endangered Species Act* (Government of Ontario, 2007) permitting requirements and site-specific mitigation measures that would be developed in consultation with the Ministry of the Environment, Conservation and Parks Species at Risk Branch. • Construction activities causing loud noises including the use of heavy machinery will not be undertaken adjacent to (i.e., within 50 m) candidate or confirmed maternity roosts between half an hour before sunset to half an hour after sunrise during the maternity roost season.
WILDLIFE-11	• Bats - Little Brown Myotis and Northern Myotis	• **Habitat loss and alteration —**The direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bat abundance and distribution.	• Operations	• Ontario Ministry of the Environment, Conservation and Parks • Environment and Climate Change Canada • Ontario Parks	• During highway maintenance, Ministry of Transportation's *Best Management Practices for Species at Risk Protection During Maintenance Activities* (Ministry of Transportation, 2017) will be considered and included in the development of the Environmental Protection Plan.	• Construction activities causing loud noises including the use of heavy machinery will not be undertaken adjacent to (in other words, within 50 m) candidate or confirmed maternity roosts between half an hour before sunset to half an hour after sunrise during the maternity roost season. • A Preliminary Biodiversity Offset Plan has been developed to offset little brown myotis and northern myotis residual effects. As the Preliminary Biodiversity Offset Plan is developed, it is anticipated that artificial bat roost structures will be installed within temporary disturbance areas and in appropriate areas within the effects assessment Local Study Area to mitigate the removal of tree roosts for little brown myotis and northern myotis. • As a component of the post-Construction monitoring program, a Before-After Control-Impact Study is proposed for operations monitoring (Section 9). Data from operations monitoring will be compared to data collected prior to Construction (i.e., existing conditions bat maternity season acoustic surveys) to determine population trends and if predictions made in the Environmental Assessment are valid, to evaluate the effectiveness of applied mitigation, and to fulfil species at risk permitting requirements.

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WILDLIFE-12	• Bats -Little Brown Myotis and Northern Myotis	• **Sensory disturbance—** Sensory disturbance (e.g., lights, odours, noise, human activity) can alter bat habitat availability, use and connectivity (movement and behaviour), which can lead to changes in abundance and distribution	• Construction	• Ontario Ministry of the Environment, Conservation and Parks • Environment and Climate Change Canada • Ontario Parks	• Mitigation measures such as restricting tree clearing within bat maternity roost habitat during the maternity roost season (May 1 to September 30) is expected to avoid and limit sensory disturbance on maternity colonies. If potential maternity roost habitat is to be removed during the roosting period, it will be subject to *Endangered Species Act* (Government of Ontario, 2007) permitting requirements and site-specific mitigation measures that would be developed in consultation with the Ministry of the Environment Conservation and Parks, Species at Risk Branch. Mitigation will include pre-clearing surveys to determine if potential maternity roost trees are present in the area to be cleared. All appropriate permits for this work will be acquired in consultation with the Ministry of the Environment Conservation and Parks, Species at Risk Branch. • Detail Design plans will incorporate vegetation buffers to be retained around quarries to reduce noise, where feasible. • Detail Design will incorporate industry best practices used for blasting activities, including scheduling when in the vicinity of sensitive wildlife sites.	• The use of night-time lighting around bat roosting areas will be minimized to the extent possible during Construction. The idling of construction vehicles and equipment will be limited. Night work will be avoided where feasible. • Restricting construction traffic to designated areas. • During Construction, access to the Community Access Road corridor will be restricted to construction personnel. • Control lighting required for Construction of the Project, including direction and timing to avoid effects on bats, while meeting operational health and safety requirements. • Noise-producing equipment will be fitted with noise-reducing components, where feasible, and these components will be maintained. • Wildlife awareness training will be provided for road construction workers to reduce vehicle speeds and associated noise and dust emission levels. • Industry best practices will be used for blasting activities, including scheduling when in the vicinity of sensitive wildlife sites. •
WILDLIFE-12	• Bats -Little Brown Myotis and Northern Myotis	• **Sensory disturbance—** Sensory disturbance (e.g., lights, odours, noise, human activity) can alter bat habitat availability, use and connectivity (movement and behaviour), which can lead to changes in abundance and distribution.	• Operations	• Ontario Ministry of the Environment, Conservation and Parks • Environment and Climate Change Canada • Ontario Parks	• During highway maintenance, Ministry of Transportation's *Best Management Practices for Species at Risk Protection During Maintenance Activities* (Ministry of Transportation, 2017) will be considered and included in the development of the Environmental Protection Plan.	• Speed limits will be posted and enforced to reduce vehicle speeds and associated noise.
WILDLIFE-13	• Bats -Little Brown Myotis and Northern Myotis	• **Incidental take**— Site preparation and construction (including drilling and blasting) may result in the destruction of roosting and hibernating bats (incidental take).	• Construction	• Ontario Ministry of the Environment, Conservation and Parks • Environment and Climate Change Canada • Ontario Parks	• The following mitigation measures will be considered during Detail design (i.e., incorporated onto engineering drawings and considered in construction scheduling, where appropriate): • Limit the Project footprint to the extent feasible. • Use existing access roads where possible. • Buffer zones of 30 m will be maintained around waterbodies, clearing of riparian vegetation will be limited to the extent practicable and to the requirement of the access road and alignment clearing width only. • The timing of the bat maternity roost season (May 1 to September 30) will be considered when planning tree removals.	• Clearing and grubbing in areas with potential bat roosting habitat will be undertaken outside of the summer roosting period (May 1 to September 30). If clearing or grubbing are required during the summer roosting period, the Ministry of Natural Resources' Species at Risk Branch will be engaged. Depending on the outcome of the discussion with the Ministry of Natural Resources, exit surveys may be conducted prior to clearing in very limited areas. Clearing will not be undertaken in areas with occupied roosting habitat. • Environmental training for workers will include information on species at risk bat roost identification and procedures to follow if a potential bat roost is identified. • Ground-based pre-clearing surveys ("wildlife sweeps") will be completed along the Construction Disturbance Area under the direction of the Environmental Monitor and Indigenous Environmental Monitor, prior to any clearing or grubbing. The

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						wildlife sweeps will entail surveying for sensitive wildlife features, including mammal dens, beaver lodges, amphibian and reptile habitats, and bat maternity roost habitat. • Any reptiles or amphibians found within work areas will be relocated to suitable habitat nearby. Safe handling practices will be used to move turtles, snakes and other herpetofauna to areas away from the construction (for example, Ontario Species at Risk Handling Manual: For *Endangered Species Act* Authorization Holders).
WILDLIFE-13	• Bats -Little Brown Myotis and Northern Myotis	• **Incidental take**— Site preparation and construction (including drilling and blasting) may result in the destruction of roosting and hibernating bats (incidental take).	• Operations	• Ontario Ministry of the Environment, Conservation and Parks • Environment and Climate Change Canada • Ontario Parks	• Not Applicable.	• Environmental training for maintenance workers will include information on species at risk bat roost identification and procedures to follow if a potential bat roost is identified. • During highway maintenance, Ministry of Transportation's *Best Management Practices for Species at Risk Protection During Maintenance Activities* (Ministry of Transportation, 2017) will be considered and included in the development of the Environmental Protection Plan.
WILDLIFE-14	• Bats -Little Brown Myotis and Northern Myotis	• **Collision with vehicles and equipment—**Project and public vehicles or heavy equipment use may cause injury or mortality to individual animals.	• Construction	• Ontario Ministry of the Environment, Conservation and Parks • Environment and Climate Change Canada • Ontario Parks	• An Environmental Protection Plan will be developed to minimize collisions between wildlife and vehicles during Construction. • During Detail Design, efforts will be made to minimize habitat loss and alteration to the extent possible through micrositing to avoid high-quality habitats and sensitive areas for bat species at risk, to the extent feasible. • Standard safe road design configurations and construction methods will be incorporated in detail design.	• Implement the Environmental Protection Plan. • Provide driver training to construction workers to understand the importance of reducing vehicle speeds, spread awareness of local wildlife, give wildlife the right-of-way, communicate the presence of wildlife along access roads and on site to other employees, and mandatory reporting of wildlife collisions. • Signage will be posted in areas where wildlife are regularly observed. • Worker transportation to site will be coordinated to reduce traffic volumes. • Employees and contractors will be subject to restrictions while working including prohibition of personal snowmobiles, all-terrain vehicles and other motorized recreational vehicles; and speeding on roads. Confine vehicle traffic to approved right-of-way, workspace, and access roads. • Block winter roads, temporary access routes and trails no longer required during Construction. • A reporting protocol and system to report incidental wildlife observations and wildlife-vehicle collisions (bats, furbearers and other large mammals, and reptiles and amphibians) during construction and operations, will be developed. The details of the incidental wildlife and wildlife-vehicle collision reporting system will be described in the Environmental Protection Plan.
WILDLIFE-14	• Bats -Little Brown Myotis and Northern Myotis	• **Collision with vehicles and equipment—**Project and public vehicles or heavy equipment use may cause injury or mortality to individual animals.	• Operations	• Ontario Ministry of the Environment, Conservation and Parks • Environment and Climate Change Canada • Ontario Parks	• Not Applicable.	• During highway maintenance, Ministry of Transportation's *Best Management Practices for Species at Risk Protection During Maintenance Activities* (Ministry of Transportation, 2017) will be considered and included in the development of the Environmental Protection Plan. • Bat maternity season acoustics: monitoring to confirm continued presence of Species at Risk bats at stations within the Project

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						Local Study Area as well as relative bat activity levels during operations. • Speed limits will be posted and enforced to reduce vehicle speeds and associated collisions with wildlife. • Signage will be posted where the road crosses the Albany River and the Ogoki River (important bat flyways) to notify motorists of the elevated risk of collisions with bats in these areas at night between May and November to encourage reduced travel speeds during that time. • Operations traffic will be restricted to approved right-of-way, workspace and access roads or trails. • Implement an Environmental Protection Plan that includes the following measures to minimize collisions between wildlife and vehicles during Maintenance. • Provide driver training to Maintenance workers to understand the importance of reducing vehicle speeds, spread awareness of local wildlife, give wildlife the right-of-way, communicate the presence of wildlife along access roads and on site to other employees, and mandatory reporting of wildlife collisions. • Signage will be posted in areas where wildlife are regularly observed. • Worker transportation to site will be coordinated to reduce traffic volumes. • A reporting protocol and system will be developed to report incidental wildlife observations and wildlife-vehicle collisions during operations. • Blocking winter roads and temporary access routes and trails no longer required as Maintenance proceeds.
WILDLIFE-15	• Furbearers - Wolverine	• **Habitat loss and alteration**—Habitat loss is the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence wolverine abundance and distribution.	• Construction	• Ontario Ministry of the Environment, Conservation and Parks • Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• An Environmental Protection Plan and a Cleanup and Reclamation Plan will be developed. Reclamation plans will be confirmed through engagement with Indigenous communities, the Ministry of Natural Resources, the Ministry of the Environment, Conservation, and Parks Species at Risk Branch and local foresters. • During Detailed Design, efforts will be made to minimize habitat loss and alteration to the extent possible through micrositing to avoid high-quality habitats and sensitive areas for wolverine, to the extent feasible. • The following mitigation measures will be considered during Detail design (i.e., incorporated onto engineering drawings and considered in construction scheduling, where appropriate): • Limit the Project footprint to the extent feasible. • Use existing access roads where possible during design.	• Implement Environmental Protection Plan and Clean up and Reclamation Plan. • Buffer zones of 30 m will be maintained around waterbodies, clearing of riparian vegetation will be limited to the extent practicable and to the requirement of the access road and alignment clearing width only. • A cleared width of less that 100 m will be maintained unless otherwise required for Construction. • Clearing and grubbing will be conducted outside of the wolverine denning period (January 15 to May 31). • If clearing or grubbing must occur during the wolverine denning period, aerial surveys to detect the presence of potential denning areas will be completed prior to construction activities. The details of the wolverine aerial survey methods will be described in the Environmental Protection Plan. Construction activities will not be conducted within 4 km of active wolverine dens during the denning period. • Buffer zones of 30 m will be maintained around waterbodies, clearing of riparian vegetation will be limited to the extent

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					• The wolverine denning period (January 15 to May 31) will be considered when planning construction timing. If clearing or grubbing must occur during the wolverine denning period, aerial surveys to detect the presence of potential denning areas will be completed prior to construction activities. The details of the wolverine aerial survey methods will be described in the Environmental Protection Plan. Construction activities will not be conducted within 4 km of active wolverine dens during the denning period. • Offsetting measures developed as part of the Preliminary Biodiversity Offset Plan (Appendix AB) will be further developed for the Project to provide a net positive outcome for wolverine. The Offset Plan will be developed following engagement and consultation with Indigenous communities, Environment and Climate Change Canada, and Ontario Ministry of the Environment Conservation and Parks.	practicable and to the requirement of the access road and alignment clearing width only. • If any periodic quarry operations planned to occur during the denning period, these activities will be preceded by wolverine den surveys conducted within 4 km of quarry operations. Quarry operations will not be conducted within 4 km of active wolverine dens during the denning period. • Temporary access roads and trails, construction camps, turnaround areas, waterbody crossings and temporary laydown areas will be reclaimed at the end of Construction. • Effectiveness of reclamation efforts will be monitored and managed post-construction. If required, adaptive management will be employed to modify or enhance any reclamation efforts. • Effectiveness of reclamation efforts will be monitored and managed post-construction. If required, adaptive management will be employed to modify or enhance any reclamation efforts. • Winter snow tracking: to monitor the abundance and distribution of furbearers during construction and operations. • Beaver lodge survey: to monitor the abundance and distribution of beavers during construction and operations. • Remote camera program: to monitor the occurrence and distribution of wildlife during construction and operations. • Autonomous recording unit surveys for anurans: to monitor species presence and distribution during construction and operations. • The effectiveness of mitigation measures will be evaluated during construction and operations and will be modified or enhanced as necessary through adaptive management. A Preliminary Biodiversity Offset Plan (Appendix AB) has been developed and will be included in the final report submission. Offsetting measures will be implemented for the Project to provide a net positive outcome for little brown myotis, northern myotis, wolverine, and wetland habitat that provides amphibian breeding habitat. The Offset Plan will be developed following engagement and consultation with Indigenous communities, Environment and Climate Change Canada, and Ontario Ministry of the Environment Conservation and Parks. • A proactive outreach and education program aimed at increasing awareness of the presence of wolverine within the area, the potential effects of incidental trapping on wolverine populations, and effective mitigation measures that reduce the likelihood of incidental wolverine trapping as outlined in Best Management Practices to Avoid Wolverine (Ontario Fur Managers Federation, 2018) will be developed and implemented.
WILDLIFE-15	• Furbearers - Wolverine	• **Habitat loss and alteration**—Habitat loss is the direct removal or alteration of soil and vegetation that may change	• Operations	• Ontario Ministry of the Environment, Conservation and Parks • Ontario Ministry of Natural Resources	• During highway maintenance, Ministry of Transportation's *Best Management Practices for Species at Risk Protection During Maintenance Activities* (Ministry of Transportation, 2017) will be	• A Before-After Control-Impact Study is proposed for operations monitoring. Data from operations monitoring will be compared to data collected prior to Construction (i.e., existing conditions winter tracking and wolverine hair snag surveys) to determine population trends and determine if predictions made in the Environmental

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
		habitat availability, use, and connectivity and influence wolverine abundance and distribution.		• Environment and Climate Change Canada • Ontario Parks	considered and included in the development of the Environmental Protection Plan.	Assessment are valid, to evaluate the effectiveness of applied mitigation, and to fulfil species at risk permitting requirements.
WILDLIFE-16	• Furbearers - Wolverine	• **Sensory disturbance—** Sensory disturbance (e.g., lights, odours, noise, human activity) can alter furbearer habitat availability, use and connectivity (movement and behaviour), which can lead to changes in abundance and distribution.	• Construction	• Ontario Ministry of the Environment, Conservation and Parks • Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Detail Design drawings will incorporate vegetation buffers to be retained around quarries to reduce noise, where feasible. • Detail Design planning will incorporate industry best practices will be used for blasting activities, including scheduling when in the vicinity of sensitive wildlife sites. • Construction schedules will consider that all construction activities that produce sensory disturbance will be avoided within 4 km of active wolverine dens.	• Construction traffic will be restricted to designated areas. • If clearing or grubbing must occur during the wolverine denning period (January 15 to May 31), areas with potential dens will be surveyed prior to construction activities. • All construction activities that produce sensory disturbance will be avoided within 4 km of active wolverine dens. • During Construction, access to the Community Access Road corridor will be restricted to construction personnel. • Noise-producing equipment will be fitted with noise-reducing components, where feasible, and these components will be maintained. • Unnecessary idling of vehicles and equipment will be limited on construction sites. • Wildlife awareness training will be provided for road construction workers to reduce vehicle speeds and associated noise and dust emission levels. • Industry best practices will be used for blasting activities, including scheduling when in the vicinity of sensitive wildlife sites. • Vegetation buffers will be retained around quarries to reduce noise, where feasible.
WILDLIFE-16	• Furbearers - Wolverine	• **Sensory disturbance—** Sensory disturbance (e.g., lights, odours, noise, human activity) can alter furbearer habitat availability, use and connectivity (movement and behaviour), which can lead to changes in abundance and distribution.	• Operations	• Ontario Ministry of the Environment, Conservation and Parks • Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• During highway maintenance, Ministry of Transportation's *Best Management Practices for Species at Risk Protection During Maintenance Activities* (Ministry of Transportation, 2017) will be considered and included in the development of the Environmental Protection Plan.	• Quarry blasting, rock crushing and screening, the use of heavy equipment, and other activities that generate loud noises will not be permitted within 4 km of confirmed or suspected wolverine den sites during the wolverine denning season (January 15 to May 31). • If any periodic quarry operations planned to occur during the denning period, these activities will be preceded by wolverine den surveys conducted within 4 km of quarry operations. Quarry operations will not be conducted within 4 km of active wolverine dens during the denning period.
WILDLIFE-17	• Furbearers - Wolverine	• **Increase in predator access—**Increased access for predators (e.g., coyote, wolf and black bear) may increase competition for prey and may increase predation risk and decrease survival and reproduction for furbearers.	• Construction	• Ontario Ministry of the Environment, Conservation and Parks • Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• The Detail Design will incorporate measures to minimize vegetation clearing and access road requirements to the extent feasible (e.g., concentrate temporary activities spatially, retain habitat outside of scoped Construction Disturbance Area, restrict construction vehicle traffic to established access roads where feasible). • Design and construct temporary linear features to decrease predator efficiency (e.g., retain vegetation under 2 m, minimize width of linear features, switch backs and bends in temporary road construction), and reduce predator mobility (e.g., not removing snow unless necessary).	• During construction, the ongoing use of inactive areas by predators will be minimized through physical control measures such as rollback, removal of creek crossings, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access. • Restrict wildlife access to waste (e.g., collect domestic and industrial waste and store in temporary containers until transported offsite, empty chemical toilets regularly, prohibit littering, prohibit feeding and harassment of wildlife). • To minimize ongoing attraction of predators to the Project area, road kill will be cleaned up following best management practices outlined by Ontario's Ministry of Transportation and wildlife access to waste will be restricted. • Progressive reclamation and revegetation will be implemented as non-permanent features would be decommissioned.

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WILDLIFE-17	• Furbearers - Wolverine	• **Increase in predator access—**Increased access for predators (e.g., coyote, wolf and black bear) may increase competition for prey and may increase predation risk and decrease survival and reproduction for furbearers.	• Operations	• Ontario Ministry of the Environment, Conservation and Parks • Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• During highway maintenance, Ministry of Transportation's *Best Management Practices for Species at Risk Protection During Maintenance Activities* (Ministry of Transportation, 2017) will be considered and included in the development of the Environmental Protection Plan.	• Restrict wildlife access to waste (e.g., collect domestic and industrial waste and store in temporary containers until transported offsite, empty chemical toilets regularly, prohibit littering, prohibit feeding and harassment of wildlife). • During operations, the ongoing use of inactive areas by predators will be minimized through physical control measures such as rollback, removal of creek crossings, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access. • To minimize ongoing attraction of predators to the Project area, road kill will be cleaned up following best management practices outlined by Ontario's Ministry of Transportation and wildlife access to waste will be restricted. • Follow best management practices and environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks, and Ontario Ministry of Natural Resources.
WILDLIFE-18	• Furbearers - Wolverine	• **Incidental take—**Site preparation and construction (including drilling and blasting) may result in the destruction or abandonment of furbearer dens, lodges (incidental take).	• Construction	• Ontario Ministry of the Environment, Conservation and Parks • Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• The following mitigation measures will be considered during Detail Design (i.e., incorporated onto engineering drawings and considered in construction scheduling, where appropriate): - Limit the Project footprint to the extent feasible. - Use existing access roads where possible. - Buffer zones of 30 m will be maintained around waterbodies, clearing of riparian vegetation will be limited to the extent practicable and to the requirement of the access road and alignment clearing width only. - The wolverine denning period (January 15 to May 31) will be considered when planning construction timing. If clearing or grubbing must occur during the wolverine denning period, aerial surveys to detect the presence of potential denning areas will be completed prior to construction activities. The details of the wolverine aerial survey methods will be described in the Environmental Protection Plan. Construction activities will not be conducted within 4 km of active wolverine dens during the denning period. • The wolverine denning period (January 15 to May 31) will be considered when planning tree removal. If clearing or grubbing must occur during the wolverine denning period, aerial surveys to detect the presence of potential denning areas will be completed prior to construction activities. The details of the wolverine aerial survey methods will be described in the Environmental Protection Plan.	• Due to the difficulty in confirming the presence of a wolverine den through aerial surveys, a conservative approach will be taken to the identification of potential wolverine dens and denning areas. The positive identification of potential wolverine denning site or denning areas will use a weight of evidence approach and consider several observations including: - Several wolverine tracks observed in the search area. - Wolverine tracks concentrated in certain areas. - Wolverine tracks observed disappearing into snow covered blowdown or drifts. • Ground-based pre-clearing surveys ("wildlife sweeps") will be completed along the Construction Disturbance Area under the direction of the Environmental Monitor and Indigenous Environmental Monitor, prior to any clearing or grubbing. The wildlife sweeps will entail surveying for sensitive wildlife features, including mammal dens, beaver lodges, amphibian and reptile habitats, and bat maternity roost habitat. • If a wolverine den or denning area is identified during Construction, and should this timing not be able to be maintained within the buffer widths identified (i.e., 4 km), local Ministry of the Environment, Conservation and Parks' Species at Risk Branch offices will be contacted to develop a den management plan and appropriate Indigenous communities will be notified, where requested. The Project will avoid activities within 4 km of the den during the denning period that would adversely affect wolverine or seek an authorization under the *Endangered Species Act* (Government of Ontario, 2007) or *Species Conservation Act*, as appropriate, prior to conduction activities. • Quarry blasting will not be permitted within 4 km of confirmed or suspected wolverine den sites during the wolverine denning season.

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					Construction activities will not be conducted within 4 km of active wolverine dens during the denning period.	• Due to the difficulty in confirming the presence of a wolverine den through aerial surveys, a conservative approach will be taken to the identification of potential wolverine dens and denning areas. The positive identification of potential wolverine denning site or denning areas will use a weight of evidence approach and consider several observations including: - Several wolverine tracks observed in the search area; - Wolverine tracks concentrated in certain areas; and - Wolverine tracks observed disappearing into snow covered blowdown or drifts. • Observations of wildlife and wildlife signs will be documented and reported to the owner / operator's Environmental Monitor and the Environmental Monitor will confirm all Species at Risk observations are reported to the Natural Heritage Information Centre as per the Report Rare Species (Animals and Plants) site (Ministry of Natural Resources, 2014) and to Ministry of the Environment, Conservation, and Parks – Species at Risk Branch at SAROntario@ontario.ca. • If clearing or grubbing are required during the wolverine denning period (January 15 to May 31) in habitat suitable for wolverine denning, surveys for the presence of wolverine dens will be conducted prior to clearing. Surveys will be conducted from helicopters or drones. The survey extent will include all potentially suitable denning habitat within 4 km of the disturbance. Den sites require a physical structure such as fallen trees, earthen banks, woody debris, or boulders with snow cover for additional structure and insulation (Scrafford and Ray, 2022). All treed communities (including swamps, forests, treed fens, and treed bogs), all eskers and other prominent terrain features, all rock barrens, all thicket swamps, all watercourse and lakeshore riparian area, and all forestry cut blocks have potential to support maternal denning, Open water and open wetlands such as marshes, open fens, and open fens are not considered suitable for maternal denning. • Effects on denning areas will be minimized to the extent possible. Areas with potential to support wolverine denning will be identified through a review of plant community mapping (looking for communities that may contain the microhabitat features [e.g., fallen trees and blowdown, boulders and variable terrain] that wolverine require for denning), and targeted aerial site reconnaissance during the same denning period that construction activities are planned to survey for signs of potential denning areas prior to the initiation of Construction (e.g., clearing and grubbing). • Environmental training for workers will include information on wolverine den identification and procedures to follow if a den is identified. • Herbicides will not be used.
WILDLIFE-18	• Furbearers - Wolverine	• **Incidental take—**Site preparation and construction (including drilling and blasting) may result in the	• Operations	• Ontario Ministry of the Environment, Conservation and Parks	• During highway maintenance, Ministry of Transportation's *Best Management Practices for Species at Risk Protection During Maintenance Activities* (Ministry of Transportation, 2017) will be	• Clearing and grubbing in areas with potential wolverine den sites will take place outside of the wolverine denning season (January 15 to May 31). If clearing or grubbing must occur during the wolverine denning period, aerial surveys to detect the presence of

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		destruction or abandonment of furbearer dens, lodges (incidental take).		• Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	considered and included in the development of the Environmental Protection Plan. • Minimize habitat loss and alteration to the extent possible during detail design.	potential denning areas will be completed prior to construction activities. The details of the wolverine aerial survey methods will be described in the Environmental Protection Plan. Clearing will not be undertaken within 4 km of areas with occupied wolverine dens. • If a wolverine den is identified during operations, and should this timing not be able to be maintained within the buffer widths identified (i.e., 4 km), local Ministry of the Environment, Conservation and Parks' Species at Risk Branch offices will be contacted to develop a den management plan and appropriate Indigenous communities will be notified, where requested. The Project will avoid activities within 4 km of the den during the denning period that would adversely affect wolverine or seek an authorization under the *Endangered Species Act* or *Species Conservation Act*, as appropriate, prior to conduction activities. • During operations, any periodic blasting will be completed outside of the denning period (January 15 to May 31).
WILDLIFE-19	• Furbearers - Wolverine	• **Collision with vehicles and equipment—**Project and public vehicles or heavy equipment use may cause injury or mortality to individual animals.	• Construction	• Ontario Ministry of the Environment, Conservation and Parks • Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• During Detail Design, efforts will be made to minimize habitat loss and alteration to the extent possible through micrositing to avoid high-quality habitats and sensitive areas for wolverine, to the extent feasible. • Standard safe road design configurations and construction methods will be incorporated in the detailed Project design. • At watercourse crossings that occur within wolverine high-use areas and are on the north-south segment of the preferred route (WA-11, WA-15 and WA-18), modified bridge and bridge embankments will be designed to incorporate terrestrial pathways adjacent to the aquatic habitat and allow for safe wildlife passage, where feasible given land cover considerations. These design features include increasing the height of bridge to minimum 4 m vertical clearance, using natural substrates on the bridge embankments, and allowing for an unobstructed line of sight on either side of the bridge. • Wildlife passage modifications to other bridge designs, including bridges that occur on the east-west trending segment of the Community Access Road.	• Provide driver training to construction workers to understand the importance of reducing vehicle speeds, spread awareness of local wildlife, give wildlife the right-of-way, communicate the presence of wildlife along access roads and on site to other employees, and mandatory reporting of wildlife collisions. • Signage will be posted in areas where wildlife are regularly observed. • Worker transportation to site will be coordinated to reduce traffic volumes. • Pits and quarries and other infrastructure required for maintenance activities will be gated to limit public access. • De-icing salts will not be used on the unpaved Community Access Road during construction or operations. • Blocking winter roads and temporary access routes and trails no longer required during construction. • A reporting protocol and system to report incidental wildlife observations and wildlife-vehicle collisions (bats, furbearers and other large mammals, and reptiles and amphibians) during Construction and operations, will be developed. The details of the incidental wildlife and wildlife-vehicle collision reporting system will be described in the Environmental Protection Plan.
WILDLIFE-19	• Furbearers - Wolverine	• **Collision with vehicles and equipment—**Project and public vehicles or heavy equipment use may cause injury or mortality to individual animals.	• Operations	• Ontario Ministry of the Environment, Conservation and Parks • Ontario Ministry of Natural Resources • Environment and Climate Change Canada	• During highway maintenance, Ministry of Transportation's *Best Management Practices for Species at Risk Protection During Maintenance Activities* (Ministry of Transportation, 2017) will be considered and included in the development of the Environmental Protection Plan.	• Operations traffic will be restricted to approved right-of-way, workspace and access roads or trails. • Implement an Environmental Protection Plan that includes the following measures to minimize collisions between wildlife and vehicles during Maintenance: provide driver training to Maintenance workers to understand the importance of reducing vehicle speeds, spread awareness of local wildlife, give wildlife the right-of-way, communicate the presence of wildlife along access

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				• Ontario Parks		roads and on site to other employees, and mandatory reporting of wildlife collisions. • Signage will be posted in areas where wildlife are regularly observed. • Worker transportation to site will be coordinated to reduce traffic volumes. • Employees and contractors will be subject to restrictions while working including prohibition of personal snowmobiles, all-terrain vehicles and other motorized recreational vehicles; and speeding on roads. Confining vehicle traffic to approved right-of-way, workspace, and access roads. • Blocking winter roads and temporary access routes and trails no longer required as operations proceeds. • A proactive outreach and education program aimed at increasing awareness of the presence of wolverine within the area, the potential effects of incidental trapping on wolverine populations, and effective mitigation measures that reduce the likelihood of incidental wolverine trapping as outlined in Best Management Practices to Avoid Wolverine (Ontario Fur Managers Federation, 2018) will be developed and implemented.
WILDLIFE-20	• Furbearers - Wolverine	• **Increase in public access—** Could affect wildlife survival and reproduction through vehicle strikes, and / or legal and illegal hunting.	• Construction	• Ontario Ministry of the Environment, Conservation and Parks • Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• An Environmental Protection Plan will be developed to minimize public access during construction. • Develop a Waste Management Plan.	• Access roads used for permanent maintenance activities will be blocked while not in use. • Employees will be prohibited from hunting or carrying firearms while working on the Project Construction. • Implement an Environmental Protection Plan that includes the following measures to control, and / or restrict public use of access roads during Construction: speed limits, gates / manned gates, signage, reduced road standard, felling of timber across temporary access roads after reclaimed, removal of temporary watercourse crossings, reduce traffic by locating camps near construction sites. Posting of restricted access and speed signage will follow the *Construction Specification for Temporary Traffic Control Devices* (Ministry of Transportation, 2025c). • Temporary access roads and other temporary construction infrastructure will be reclaimed as quickly as possible following Construction. As part of the reclamation of temporary access roads, access to these roads will be physically blocked to decrease public use. • Waste management and site surveillance monitoring would be completed to avoid attraction of wildlife to the Project and associated risks of adverse human-wildlife interactions. Potential problem areas at the Project would be identified as part of monitoring, which could lead to the implementation of targeted mitigation measures in these areas to limit human-wildlife conflicts. The details of the waste management and site surveillance monitoring will be described in the Waste Management Plan and Environmental Protection Plan.

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WILDLIFE-20	• Furbearers - Wolverine	• **Increase in public access—** Could affect wildlife survival and reproduction through vehicle strikes, and / or legal and illegal hunting.	• Operations	• Ontario Ministry of the Environment, Conservation and Parks • Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• During highway maintenance, Ministry of Transportation's *Best Management Practices for Species at Risk Protection During Maintenance Activities* (Ministry of Transportation, 2017) will be considered and included in the development of the Environmental Protection Plan.	• Employees will be prohibited from hunting or carrying firearms while working on the Project operations. • Implement an Environmental Protection Plan that includes the following measures to control, and / or restrict public use of access roads during operations: speed limits, gates / manned gates, signage, reduced road standard, felling of timber across temporary access roads after reclaimed, removal of temporary watercourse crossings, reduce traffic by locating camps near construction sites. Posting of restricted access and speed signage will follow the *Construction Specification for Temporary Traffic Control Devices* (Ministry of Transportation, 2025c). • During operations, the Community Access Road will be accessible to the public but access roads for aggregate areas and other infrastructure required for maintenance activities will be gated to limit public access.
WILDLIFE-21	• Furbearers - American Marten	• **Habitat loss and alteration—**Habitat loss is the direct removal or alteration of soil and vegetation that may change furbearer habitat availability, use, and connectivity and influence furbearer abundance and distribution.	• Construction	• Ontario Ministry of Natural Resources • Ontario Parks	• Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks, and Ontario Ministry of Natural Resources, will be followed during Detailed Design. • An Environmental Protection Plan and a Cleanup and Reclamation Plan will be developed. Reclamation plans will be confirmed through engagement with Indigenous communities, the Ministry of Natural Resources and local foresters. • During Detail Design, efforts will be made to minimize habitat loss and alteration to the extent possible through micrositing to avoid high-quality habitats and sensitive areas for marten, to the extent feasible. • The following mitigation measures will be considered during Detail design (i.e., incorporated onto engineering drawings and considered in construction scheduling, where appropriate): - Limit the Project footprint to the extent feasible. - Use existing access roads where possible. - Buffer zones of 30 m will be maintained around waterbodies, clearing of riparian vegetation will be limited to the extent practicable and to the requirement of the access road and alignment clearing width only.	• Any American marten dens observed will be marked as sensitive sites and isolated. • Buffer zones of 30 m will be maintained around waterbodies, clearing of riparian vegetation will be limited to the extent practicable and to the requirement of the access road and alignment clearing width only. • Temporary access roads and trails, construction camps, turnaround areas, waterbody crossings and temporary laydown areas will be reclaimed at the end of Construction. • Effectiveness of reclamation efforts will be monitored and managed post-construction. If required, adaptive management will be employed to modify or enhance any reclamation efforts.
WILDLIFE-21	• Furbearers - American Marten	• **Habitat loss and alteration**—Habitat loss is the direct removal or alteration of soil and vegetation that may change furbearer habitat availability,	• Operations	• Ontario Ministry of Natural Resources • Ontario Parks	• Not applicable	• A Before-After Control-Impact Study is proposed for operations monitoring. Data from operations monitoring will be compared to data collected prior to Construction (i.e., existing conditions winter tracking remote camera surveys) to determine population trends and if predictions made in the Environmental Assessment are valid and to evaluate the effectiveness of applied mitigation.

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		use, and connectivity and influence furbearer abundance and distribution.				
WILDLIFE-22	• Furbearers - American Marten	• **Sensory disturbance—** Sensory disturbance (e.g., lights, odours, noise, human activity) can alter furbearer habitat availability, use and connectivity (movement and behaviour), which can lead to changes in abundance and distribution.	• Construction	• Ontario Ministry of Natural Resources • Ontario Parks	• Detail Design will incorporate industry best practices will be used for blasting activities, including scheduling when in the vicinity of sensitive wildlife sites. • Detail Design will incorporate vegetation buffers to be retained around quarries to reduce noise, where feasible.	• Construction traffic will be restricted to designated areas. • During Construction, access to the Community Access Road corridor will be restricted to construction personnel. • Noise-producing equipment will be fitted with noise-reducing components, where feasible, and these components will be maintained. • Unnecessary idling of vehicles and equipment will be limited on construction sites. • Wildlife awareness training will be provided for road construction workers to reduce vehicle speeds and associated noise and dust emission levels. • Industry best practices will be used for blasting activities, including scheduling when in the vicinity of sensitive wildlife sites. • Vegetation buffers will be retained around quarries to reduce noise, where feasible.
WILDLIFE-22	• Furbearers - American Marten	• **Sensory disturbance—** Sensory disturbance (e.g., lights, smells, noise, human activity) can alter wildlife habitat availability, use, and connectivity (movement and behaviour), which can lead to changes in abundance and distribution and adversely affect survival and reproduction.	• Operations	• Ontario Ministry of Natural Resources • Ontario Parks	• Not applicable	• Speed limits will be posted and enforced to reduce vehicle speeds and associated noise.
WILDLIFE-23	• Furbearers - American Marten	• **Increase in predator access—**Increased access for predators (e.g., coyote, wolf and black bear) may increase competition for prey and may increase predation risk and decrease survival and reproduction for furbearers.	• Construction	• Ontario Ministry of Natural Resources • Ontario Parks	• The Project footprint is designed to minimize vegetation clearing and access road requirements to the extent feasible (e.g., concentrate temporary activities spatially, retain habitat outside of scoped Construction Disturbance Area, restrict construction vehicle traffic to established access roads where feasible). • Design and construct temporary linear features to decrease predator efficiency (e.g., retain vegetation under 2 m, minimize width of linear features, switch backs and bends in temporary road construction), and reduce predator mobility (e.g., not removing snow unless necessary).	• Restrict wildlife access to waste (e.g., collect domestic and industrial waste and store in temporary containers until transported offsite, empty chemical toilets regularly, prohibit littering, prohibit feeding and harassment of wildlife). • During Construction, the ongoing use of inactive areas by predators will be minimized through physical control measures such as rollback, removal of creek crossings, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access. • To minimize ongoing attraction of predators to the Project area, road kill will be cleaned up following best management practices outlined by Ontario's Ministry of Transportation and wildlife access to waste will be restricted. • Progressive reclamation and revegetation would be implemented as non-permanent features would be decommissioned.
WILDLIFE-23	• Furbearers - American Marten	• **Increase in predator access—**Increased access for predators (e.g., coyote, wolf and black bear) may	• Operations	• Ontario Ministry of Natural Resources • Ontario Parks	• Not applicable	• Restrict wildlife access to waste (e.g., collect domestic and industrial waste and store in temporary containers until transported offsite, empty chemical toilets regularly, prohibit littering, prohibit feeding and harassment of wildlife).

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		increase competition for prey and may increase predation risk and decrease survival and reproduction for furbearers.				• During operations, the ongoing use of inactive areas by predators will be minimized through physical control measures such as rollback, removal of creek crossings, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access. • To minimize ongoing attraction of predators to the Project area, road kill will be cleaned up following best management practices outlined by Ontario's Ministry of Transportation and wildlife access to waste will be restricted.
WILDLIFE-24	• Furbearers - American Marten	• **Incidental take—**Site preparation and construction (including drilling and blasting) may result in the destruction or abandonment of furbearer dens, lodges (incidental take).	• Construction	• Ontario Ministry of Natural Resources • Ontario Parks	• The following mitigation measures will be considered during Detail Design (i.e., incorporated onto engineering drawings and considered in construction scheduling, where appropriate): - Limit the Project footprint to the extent feasible. - Use existing access roads where possible. - Buffer zones of 30 m will be maintained around waterbodies, clearing of riparian vegetation will be limited to the extent practicable and to the requirement of the access road and alignment clearing width only.	• Construction traffic will be restricted to designated areas. • Environmental training for workers will include information on American marten den identification and procedures to follow if a den is identified. • If an active den is identified during active construction, including during vegetation removal, work will stop and local Ministry of Natural Resources offices will be contacted immediately. The den will be clearly marked, a 100 m buffer surrounding the den will be established and no vegetation removal will proceed within that buffer until Ministry of Natural Resources is engaged.
WILDLIFE-24	• Furbearers - American Marten	• **Incidental take—**Site preparation and construction (including drilling and blasting) may result in the destruction or abandonment of furbearer dens, lodges (incidental take).	• Operations	• Ontario Ministry of Natural Resources • Ontario Parks	• Not applicable	• Maintenance traffic will be restricted to designated areas. • Minimize habitat loss and alteration to the extent possible. • Environmental training for workers will include information on American marten den identification and procedures to follow if a den is identified. • Herbicides will not be used. • Ground-based pre-clearing surveys ("wildlife sweeps") will be completed along the Construction Disturbance Area under the direction of the Environmental Monitor and Indigenous Environmental Monitor, prior to any clearing or grubbing. The wildlife sweeps will entail surveying for sensitive wildlife features, including mammal dens, beaver lodges, amphibian and reptile habitats, and bat maternity roost habitat.
WILDLIFE-25	• Furbearers - American Marten	• **Collision with vehicles and equipment—**Project and public vehicles or heavy equipment use may cause injury or mortality to individual animals.	• Construction	• Ontario Ministry of Natural Resources • Ontario Parks	• During Detailed Design, efforts will be made to minimize habitat loss and alteration to the extent possible through micrositing to avoid high-quality habitats and sensitive areas for marten, to the extent feasible. • Standard safe road design configurations and construction methods will be incorporated in the detailed Project design.	• Worker transportation to site will be coordinated to reduce traffic volumes. • Pits and quarries and other infrastructure required for maintenance activities will be gated to limit public access. • Blocking winter roads and temporary access routes and trails no longer required during Construction.
WILDLIFE-25	• Furbearers - American Marten	• **Collision with vehicles and equipment—**Project and public vehicles or heavy equipment use may cause injury or mortality to individual animals.	• Operations	• Ontario Ministry of Natural Resources • Ontario Parks	• Not applicable.	• Operations traffic will be restricted to approved right-of-way, workspace and access roads or trails. • Pits and quarries and other infrastructure required for maintenance activities will be gated to limit public access. • Implement an Environmental Protection Plan that includes the following measures to minimize collisions between wildlife and

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						vehicles during Maintenance: provide driver training to Maintenance workers to understand the importance of reducing vehicle speeds, spread awareness of local wildlife, give wildlife the right-of-way, communicate the presence of wildlife along access roads and on site to other employees, and mandatory reporting of wildlife collisions.
WILDLIFE-26	• Furbearers - American Marten	• **Increase in public access—** Could affect wildlife survival and reproduction through vehicle strikes, and / or legal and illegal hunting	• Construction	• Ontario Ministry of Natural Resources • Ontario Parks	• An Environmental Protection Plan will be developed to minimize public access.	• Access roads used for permanent maintenance activities will be blocked while not in use. • Employees will be prohibited from hunting or carrying firearms while working on the Project maintenance. • Implement an Environmental Protection Plan that includes the following measures to control, and / or restrict public use of access roads during Construction and operations: speed limits, gates / manned gates, signage, reduced road standard, felling of timber across temporary access roads after reclaimed, removal of temporary watercourse crossings, reduce traffic by locating camps near construction sites. Posting of restricted access and speed signage will follow the *Construction Specification for Temporary Traffic Control Devices* (Ministry of Transportation, 2025c). • Progressive reclamation and revegetation would be implemented as non-permanent features would be decommissioned. • Waste management and site surveillance monitoring would be completed to avoid attraction of wildlife to the Project and associated risks of adverse human-wildlife interactions. Potential problem areas at the Project would be identified as part of monitoring, which could lead to the implementation of targeted mitigation measures in these areas to limit human-wildlife conflicts. The details of the waste management and site surveillance monitoring will be described in the Waste Management Plan and Environmental Protection Plan.
WILDLIFE-26	• Furbearers - American Marten	• **Increase in public access—** Could affect wildlife survival and reproduction through vehicle strikes, and / or legal and illegal hunting.	• Operations	• Ontario Ministry of Natural Resources • Ontario Parks	• Not applicable	• Access roads used for permanent maintenance activities will be blocked while not in use. • Employees will be prohibited from hunting or carrying firearms while working on the Project Maintenance. • Implement an Environmental Protection Plan that includes the following measures to control, and / or restrict public use of access roads during operations: speed limits, gates / manned gates, signage, reduced road standard, felling of timber across temporary access roads after reclaimed, removal of temporary watercourse crossings, reduce traffic by locating camps near construction sites. Posting of restricted access and speed signage will follow the *Construction Specification for Temporary Traffic Control Devices* (Ministry of Transportation, 2025c). • During operations, the Community Access Road will be accessible to the public but access roads for aggregate areas and other infrastructure required for maintenance activities will be gated to limit public access.
WILDLIFE-27	• Furbearers - Beaver	• **Habitat loss and alteration—**Habitat loss is	• Construction	• Ontario Ministry of Natural Resources	• An Environmental Protection Plan and a Cleanup and Reclamation Plan will be developed.	• Any beaver lodge observed will be marked as sensitive and protected.

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		the direct removal or alteration of soil and vegetation that may change furbearer habitat availability, use, and connectivity and influence furbearer abundance and distribution.		• Ontario Parks	Reclamation plans will be confirmed through engagement with Indigenous communities, the Ministry of Natural Resources and local foresters. • During Detailed Design, efforts will be made to minimize habitat loss and alteration to the extent possible through micrositing to avoid high-quality habitats and sensitive areas for beaver, to the extent feasible. • The following mitigation measures will be considered during Detail design (i.e., incorporated onto engineering drawings and considered in construction scheduling, where appropriate): - Limit the Project footprint to the extent feasible. - Use existing access roads where possible. - Buffer zones of 30 m will be maintained around waterbodies, clearing of riparian vegetation will be limited to the extent practicable and to the requirement of the access road and alignment clearing width only. - Prior to the construction of the Project, an additional arial survey for active beaver lodges will be completed throughout the effects assessment Local Study Area to complement existing conditions data and refine the baseline characterization of beaver distribution.	• Buffer zones of 30 m will be maintained around waterbodies, clearing of riparian vegetation will be limited to the extent practicable and to the requirement of the access road and alignment clearing width only. • Temporary access roads and trails, construction camps, turnaround areas, waterbody crossings and temporary laydown areas will be reclaimed at the end of construction. • Effectiveness of reclamation efforts will be monitored and managed post-construction. If required, adaptive management will be employed to modify or enhance any reclamation efforts.
WILDLIFE-27	• Furbearers - Beaver	• **Habitat loss and alteration—**Habitat loss is the direct removal or alteration of soil and vegetation that may change furbearer habitat availability, use, and connectivity and influence furbearer abundance and distribution.	• Operations	• Ontario Ministry of Natural Resources • Ontario Parks	• Not applicable	• A Before-After Control-Impact Study is proposed for operations monitoring. Data from operations monitoring will be compared to data collected prior to Construction (i.e., aerial survey) to determine population trends and if predictions made in the Environmental Assessment are valid and to evaluate the effectiveness of applied mitigation.
WILDLIFE-28	• Furbearers - Beaver	• **Sensory disturbance—** Sensory disturbance (e.g., lights, odours, noise, human activity) can alter furbearer habitat availability, use and connectivity (movement and behaviour), which can lead to changes in abundance and distribution.	• Construction	• Ontario Ministry of Natural Resources • Ontario Parks	• Detail design will incorporate industry best practices will be used for blasting activities, including scheduling when in the vicinity of sensitive wildlife sites. • Detail design will incorporate vegetation buffers to be retained around quarries to reduce noise, where feasible.	• Construction traffic will be restricted to designated areas. • During Construction, access to the Community Access Road corridor will be restricted to construction personnel. • Noise-producing equipment will be fitted with noise-reducing components, where feasible, and these components will be maintained. • Unnecessary idling of vehicles and equipment will be limited on construction sites. • Wildlife awareness training will be provided for road construction workers to reduce vehicle speeds and associated noise and dust emission levels. • Industry best practices will be used for blasting activities, including scheduling when in the vicinity of sensitive wildlife sites.

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						• Vegetation buffers will be retained around quarries to reduce noise, where feasible.
WILDLIFE-28	• Furbearers - Beaver	• **Sensory disturbance—** Sensory disturbance (e.g., lights, odours, noise, human activity) can alter furbearer habitat availability, use and connectivity (movement and behaviour), which can lead to changes in abundance and distribution.	• Operations	• Ontario Ministry of Natural Resources • Ontario Parks	• Not applicable	• Speed limits will be posted and enforced to reduce vehicle speeds and associated noise.
WILDLIFE-29	• Furbearers - Beaver	• **Increase in predator access—**Increased access for predators (e.g., coyote, wolf and black bear) may increase competition for prey and may increase predation risk and decrease survival and reproduction for furbearers.	• Construction	• Ontario Ministry of Natural Resources • Ontario Parks	• The Project footprint is designed to minimize vegetation clearing and access road requirements to the extent feasible (e.g., concentrate temporary activities spatially, retain habitat outside of scoped Construction Disturbance Area, restrict construction vehicle traffic to established access roads where feasible). • Design and construct temporary linear features to decrease predator efficiency (e.g., retain vegetation under 2 m, minimize width of linear features, switch backs and bends in temporary road construction), and reduce predator mobility (e.g., not removing snow unless necessary).	• Restrict wildlife access to waste (e.g., collect domestic and industrial waste and store in temporary containers until transported offsite, empty chemical toilets regularly, prohibit littering, prohibit feeding and harassment of wildlife). • During Construction, the ongoing use of inactive areas by predators will be minimized through physical control measures such as rollback, removal of creek crossings, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access. • To minimize ongoing attraction of predators to the Project area, road kill will be cleaned up following best management practices outlined by Ontario's Ministry of Transportation and wildlife access to waste will be restricted.
WILDLIFE-29	• Furbearers - Beaver	• **Increase in predator access—**Increased access for predators (e.g., coyote, wolf and black bear) may increase competition for prey and may increase predation risk and decrease survival and reproduction for furbearers.	• Operations	• Ontario Ministry of Natural Resources • Ontario Parks	• Not applicable	• Restrict wildlife access to waste (e.g., collect domestic and industrial waste and store in temporary containers until transported offsite, empty chemical toilets regularly, prohibit littering, prohibit feeding and harassment of wildlife). • During operations, the ongoing use of inactive areas by predators will be minimized through physical control measures such as rollback, removal of creek crossings, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access. • To minimize ongoing attraction of predators to the Project area, road kill will be cleaned up following best management practices outlined by Ontario's Ministry of Transportation and wildlife access to waste will be restricted.
WILDLIFE-30	• Furbearers - Beaver	• **Incidental Take—**Site preparation and construction (including drilling and blasting) may result in the destruction or abandonment of furbearer dens, lodges (incidental take).	• Construction	• Ontario Ministry of Natural Resources • Ontario Parks	• The following mitigation measures will be considered during Detail design (i.e., incorporated onto engineering drawings and considered in construction scheduling, where appropriate): - Ministry of Transportation's *Guide for Fisheries – Best Management Practices* will be followed when beaver dams are removed from within a waterbody supporting fish and fish habitat. - Limit the Project footprint to the extent feasible. - Use existing access roads where possible.	• Screening culverts and regularly checking water crossings for evidence of beaver activity and removing log jams early can reduce the need to remove beaver dams or lodges in ways that could cause incidental take of beavers. • Environmental training for workers will include information on American marten den identification and procedures to follow if a den is identified. • Herbicides will not be used. • If an active lodge is identified during active construction, including during vegetation removal, work will stop and local Ministry of Natural Resources offices will be contacted immediately. If a beaver lodge or dam requires removal then an *Application to Interfere with/Destroy a*

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					- Buffer zones of 30 m will be maintained around waterbodies, clearing of riparian vegetation will be limited to the extent practicable and to the requirement of the access road and alignment clearing width only.	*Black Bear or Furbearing Mammal Den, Beaver Dam, Black Bear in Den* will be submitted to the Ministry of Natural Resources. • Ground-based pre-clearing surveys ("wildlife sweeps") will be completed along the Construction Disturbance Area under the direction of the Environmental Monitor and Indigenous Environmental Monitor, prior to any clearing or grubbing. The wildlife sweeps will entail surveying for sensitive wildlife features, including mammal dens, beaver lodges, amphibian and reptile habitats, and bat maternity roost habitat.
WILDLIFE-30	• Furbearers - Beaver	• **Incidental Take—**Site preparation and construction (including drilling and blasting) may result in the destruction or abandonment of furbearer dens, lodges (incidental take).	• Operations	• Ontario Ministry of Natural Resources • Ontario Parks	• Not applicable	• Maintenance traffic will be restricted to designated areas • Environmental training for workers will include information on American marten den identification and procedures to follow if a den is identified.
WILDLIFE-31	• Furbearers - Beaver	• **Collision with vehicles and equipment—**Project and public vehicles or heavy equipment use may cause injury or mortality to individual animals	• Construction	• Ontario Ministry of Natural Resources • Ontario Parks	• During Detailed Design, efforts will be made to minimize habitat loss and alteration to the extent possible through micrositing to avoid high-quality habitats and sensitive areas for beaver, to the extent feasible. • Standard safe road design configurations and construction methods will be incorporated in the detailed Project design.	• Provide driver training to construction workers to understand the importance of reducing vehicle speeds, spread awareness of local wildlife, give wildlife the right-of-way, communicate the presence of wildlife along access roads and on site to other employees, and mandatory reporting of wildlife collisions. • Pits and quarries and other infrastructure required for maintenance activities will be gated to limit public access. • A reporting protocol and system to report incidental wildlife observations and wildlife-vehicle collisions (bats, furbearers and other large mammals, and reptiles and amphibians) during construction and operations, will be developed. The details of the incidental wildlife and wildlife-vehicle collision reporting system will be described in the Environmental Protection Plan.
WILDLIFE-31	• Furbearers - Beaver	• **Collision with vehicles and equipment—**Project and public vehicles or heavy equipment use may cause injury or mortality to individual animals	• Operations	• Ontario Ministry of Natural Resources • Ontario Parks	• Not applicable.	• Speed limits will be posted and enforced to reduce vehicle speeds and associated collisions with wildlife. • Operations traffic will be restricted to approved right-of-way, workspace and access roads or trails. • Pits and quarries and other infrastructure required for maintenance activities will be gated to limit public access. • Implement an Environmental Protection Plan that includes the following measures to minimize collisions between wildlife and vehicles during Maintenance: provide driver training to Maintenance workers to understand the importance of reducing vehicle speeds, spread awareness of local wildlife, give wildlife the right-of-way, communicate the presence of wildlife along access roads and on site to other employees, and mandatory reporting of wildlife collisions. • Worker transportation to site will be coordinated to reduce traffic volumes. • A reporting protocol and system will be developed to report incidental wildlife observations and wildlife-vehicle collisions during operations.

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						• Blocking winter roads and temporary access routes and trails no longer required as Maintenance proceeds.
WILDLIFE-32	• Furbearers - Beaver	• **Increase in public access—** Could affect wildlife survival and reproduction through vehicle strikes, and / or legal and illegal hunting**.**	• Construction	• Ontario Ministry of Natural Resources • Ontario Parks	• An Environmental Protection Plan will be developed to minimize public access.	• Access roads used for permanent maintenance activities will be blocked while not in use. • Employees will be prohibited from hunting or carrying firearms while working on the Project maintenance. • Implement an Environmental Protection Plan that includes the following measures to control, and / or restrict public use of access roads during construction and operations: speed limits, gates / manned gates, signage, reduced road standard, felling of timber across temporary access roads after reclaimed, removal of temporary watercourse crossings, reduce traffic by locating camps near construction sites. Posting of restricted access and speed signage will follow the *Construction Specification for Temporary Traffic Control Devices* (Ministry of Transportation, 2025c). • Temporary access roads and other temporary construction infrastructure will be reclaimed as quickly as possible following Construction. As part of the reclamation of temporary access roads, access to these roads will be physically blocked to decrease public use. • Waste management and site surveillance monitoring would be completed to avoid attraction of wildlife to the Project and associated risks of adverse human-wildlife interactions. Potential problem areas at the Project would be identified as part of monitoring, which could lead to the implementation of targeted mitigation measures in these areas to limit human-wildlife conflicts. The details of the waste management and site surveillance monitoring will be described in the Waste Management Plan and Environmental Protection Plan.
WILDLIFE-32	• Furbearers - Beaver	• **Increase in public access—** Could affect wildlife survival and reproduction through vehicle strikes, and / or legal and illegal hunting.	• Operations	• Ontario Ministry of Natural Resources • Ontario Parks	• Not applicable	• During operations, the Community Access Road will be accessible to the public but access roads for aggregate areas and other infrastructure required for maintenance activities will be gated to limit public access.
WILDLIFE-33	• Reptiles and Amphibians	• **Habitat loss and alteration—**Habitat loss is the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence reptile and amphibian abundance and distribution.	• Construction	• Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• During Detailed Design, efforts will be made to minimize habitat loss and alteration to the extent possible through micrositing to avoid high-quality habitats and sensitive areas for reptiles and amphibians, to the extent feasible. • The following mitigation measures will be considered during Detail design (i.e., incorporated onto engineering drawings and considered in construction scheduling, where appropriate): - Limit the Project footprint to the extent feasible. - Use existing access roads where possible. - Buffer zones of 30 m will be maintained around waterbodies, clearing of riparian vegetation will be limited to the extent practicable and to the	• Buffer zones of 30 m will be maintained around waterbodies, clearing of riparian vegetation will be limited to the extent practicable and to the requirement of the access road and alignment clearing width only. • Temporary access roads and trails, construction camps, turnaround areas, waterbody crossings and temporary laydown areas will be reclaimed at the end of construction. • Effectiveness of reclamation efforts will be monitored and managed post-construction. If required, adaptive management will be employed to modify or enhance any reclamation efforts.

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					requirement of the access road and alignment clearing width only.	
WILDLIFE-33	• Reptiles and Amphibians	• **Habitat loss and alteration—**Habitat loss is the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence reptile and amphibian abundance and distribution.	• Operations	• Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Not applicable	• A Before-After Control-Impact Study is proposed for operations monitoring (Section 9.0). Data from operations monitoring will be compared to data collected prior to Construction (i.e., autonomous recording unit anuran call count surveys) to determine population trends and if predictions made in the Environmental Assessment are valid and to evaluate the effectiveness of applied mitigation.
WILDLIFE-34	• Reptiles and Amphibians	• **Sensory disturbance—** Sensory disturbance (e.g., lights, odours, noise, human activity) can alter reptile and amphibian habitat availability, use and connectivity (movement and behaviour), which can lead to changes in abundance and distribution.	• Construction	• Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Detail design will incorporate industry best practices will be used for blasting activities, including scheduling when in the vicinity of sensitive wildlife sites. • Detail design will incorporate vegetation buffers to be retained around quarries to reduce noise, where feasible.	• Construction traffic will be restricted to designated areas. • During Construction, access to the Community Access Road corridor will be restricted to construction personnel. • Noise-producing equipment will be fitted with noise-reducing components, where feasible, and these components will be maintained. • Unnecessary idling of vehicles and equipment will be limited on construction sites. • Wildlife awareness training will be provided for road construction workers to reduce vehicle speeds and associated noise and dust emission levels. • Industry best practices will be used for blasting activities, including scheduling when in the vicinity of sensitive wildlife sites. • Vegetation buffers will be retained around quarries to reduce noise, where feasible.
WILDLIFE-34	• Reptiles and Amphibians	• **Sensory disturbance—** Sensory disturbance (e.g., lights, odours, noise, human activity) can alter reptile and amphibian habitat availability, use and connectivity (movement and behaviour), which can lead to changes in abundance and distribution.	• Operations	• Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Not applicable	• Speed limits will be posted and enforced to reduce vehicle speeds and associated noise.
WILDLIFE-35	• Reptiles and Amphibians	• **Incidental take—**Site preparation and construction (including drilling and blasting) may result in the destruction or abandonment of gestation or hibernation site (incidental take).	• Construction	• Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• An Environmental Protection Plan will be developed that includes a worker awareness program. • The following mitigation measures will be considered during Detail design (i.e., incorporated onto engineering drawings and considered in construction scheduling, where appropriate): - Limit the Project footprint to the extent feasible. - Use existing access roads where possible. - Buffer zones of 30 m will be maintained around waterbodies, clearing of riparian vegetation will be limited to the extent practicable and to the	• Construction traffic will be restricted to designated areas. • Construction personnel will traverse the path of construction equipment, to induce frogs, toads, and snakes to be scared away from the path of oncoming machinery. • Any reptiles or amphibians found within work areas will be relocated to suitable habitat nearby. Safe handling practices will be used to move turtles, snakes and other herpetofauna to areas away from the construction (e.g., *Ontario Species at Risk Handling Manual: For Endangered Species Act Authorization Holders*). • Ground-based pre-clearing surveys (“wildlife sweeps”) will be completed along the Construction Disturbance Area under the direction of the Environmental Monitor and Indigenous Environmental Monitor, prior to any clearing or grubbing. The

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					requirement of the access road and alignment clearing width only. • Should the initiation of construction be delayed for an extended period of time (for example, five or more years), additional baseline monitoring may be required to update an assessment of adverse effects during the *Endangered Species Act* authorization process.	wildlife sweeps will entail surveying for sensitive wildlife features, including mammal dens, beaver lodges, amphibian and reptile habitats, and bat maternity roost habitat.
WILDLIFE-35	• Reptiles and Amphibians	• **Incidental take—**Site preparation and construction (including drilling and blasting) may result in the destruction or abandonment of gestation or hibernation site (incidental take).	• Operations	• Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Not applicable	• Follow best management practices and environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks, and Ontario Ministry of Natural Resources.
WILDLIFE-36	• Reptiles and Amphibians	• **Collision with vehicles and equipment—**Project and public vehicles or heavy equipment use may cause injury or mortality to individual animals.	• Construction	• Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• An Environmental Protection Plan will be developed to minimize collisions between wildlife and vehicles during Construction. • During Detailed Design, efforts will be made to minimize habitat loss and alteration to the extent possible through micrositing to avoid high-quality habitats and sensitive areas for reptiles and amphibians, to the extent feasible. • Subsurface eco-passages and exclusion fencing will be established at culverts along the north-south segment of the Community Access Road. • Standard safe road design configurations and construction methods will be incorporated in the detailed Project design.	• Monitoring for reptiles and amphibians will be conducted during Construction and reptiles and amphibians will be relocated as needed to similar habitat outside of the work area. • Subsurface eco-passages and exclusion fencing will be established at culverts along the north-south segment of the Community Access Road. • Pits and quarries and other infrastructure required for maintenance activities will be gated to limit public access. • Blocking winter roads and temporary access routes and trails no longer required during Construction. • A reporting protocol and system to report incidental wildlife observations and wildlife-vehicle collisions (bats, furbearers and other large mammals, and reptiles and amphibians) during construction and operations, will be developed. The details of the incidental wildlife and wildlife-vehicle collision reporting system will be described in the Environmental Protection Plan.
WILDLIFE-36	• Reptiles and Amphibians	• **Collision with vehicles and equipment—**Project and public vehicles or heavy equipment use may cause injury or mortality to individual animals.	• Operations	• Ontario Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Not applicable	• Monitoring for reptiles and amphibians will be conducted during operations and reptiles and amphibians will be relocated as needed to similar habitat outside of the work area. • Signage will be posted in areas where reptiles and amphibians are regularly observed. • Operations traffic will be restricted to approved right-of-way, workspace and access roads or trails. • Pits and quarries and other infrastructure required for maintenance activities will be gated to limit public access. • Implement an Environmental Protection Plan that includes the following measures to minimize collisions between wildlife and vehicles during Maintenance: provide driver training to Maintenance workers to understand the importance of reducing vehicle speeds, spread awareness of local wildlife, give wildlife the right-of-way, communicate the presence of wildlife along access roads and on site to other employees, and mandatory reporting of wildlife collisions.

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						• A reporting protocol and system will be developed to report incidental wildlife observations and wildlife-vehicle collisions during operations. • Subsurface eco-passages and exclusion fencing will be established at culverts along the north-south segment of the Community Access Road.
WILDLIFE-37	• Pollinating Insects	• **Habitat loss and alteration—**Habitat loss is the direct removal or alteration of soil and vegetation that may change furbearer habitat availability, use, and connectivity and influence pollinating insect abundance and distribution.	• Construction	• Ontario Ministry of the Environment, Conservation and Parks • Environment and Climate Change Canada • Ontario Parks	• An Environmental Protection Plan and a Cleanup and Reclamation Plan will be developed and implemented. Reclamation plans will be confirmed through engagement with Indigenous communities, the Ministry of Natural Resources and local foresters. • The following mitigation measures will be considered during Detail design (i.e., incorporated onto engineering drawings and considered in construction scheduling, where appropriate): - Limit the Project footprint to the extent feasible. - Use existing access roads where possible. - Buffer zones of 30 m will be maintained around waterbodies, clearing of riparian vegetation will be limited to the extent practicable and to the requirement of the access road and alignment clearing width only.	• Buffer zones of 30 m will be maintained around waterbodies, clearing of riparian vegetation will be limited to the extent practicable and to the requirement of the access road and alignment clearing width only. • Temporary access roads and trails, construction camps, turnaround areas, waterbody crossings and temporary laydown areas will be reclaimed at the end of Construction. • Effectiveness of reclamation efforts will be monitored and managed post-construction. If required, adaptive management will be employed to modify or enhance any reclamation efforts.
WILDLIFE-37	• Pollinating Insects	• **Habitat loss and alteration—**Habitat loss is the direct removal or alteration of soil and vegetation that may change furbearer habitat availability, use, and connectivity and influence pollinating insect abundance and distribution.	• Operations	• Ontario Ministry of the Environment, Conservation and Parks • Environment and Climate Change Canada • Ontario Parks	• Not applicable	• Follow best management practices and environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks, and Ontario Ministry of Natural Resources.
WILDLIFE-38	• Pollinating Insects	• **Sensory disturbance—** Sensory disturbance (e.g., lights, odours, noise, human activity) can alter reptile and amphibian pollinating insect habitat availability, use and connectivity (movement and behaviour), which can lead to changes in abundance and distribution.	• Construction	• Ontario Ministry of the Environment, Conservation and Parks • Environment and Climate Change Canada • Ontario Parks	• Detail design will incorporate industry best practices used for blasting activities, including scheduling when in the vicinity of sensitive wildlife sites.	• Construction traffic will be restricted to designated areas. • During Construction, access to the Community Access Road corridor will be restricted to construction personnel. • Noise-producing equipment will be fitted with noise-reducing components, where feasible, and these components will be maintained. • Unnecessary idling of vehicles and equipment will be limited on construction sites. • Wildlife awareness training will be provided for road construction workers to reduce vehicle speeds and associated noise and dust emission levels. • Industry best practices will be used for blasting activities, including scheduling when in the vicinity of sensitive wildlife sites.

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WILDLIFE-38	• Pollinating Insects	• **Sensory disturbance—** Sensory disturbance (e.g., lights, odours, noise, human activity) can alter reptile and amphibian pollinating insect habitat availability, use and connectivity (movement and behaviour), which can lead to changes in abundance and distribution.	• Operations	• Ontario Ministry of the Environment, Conservation and Parks • Environment and Climate Change Canada • Ontario Parks	• Not applicable	• Speed limits will be posted and enforced to reduce vehicle speeds and associated noise.
WILDLIFE-39	• Pollinating Insects	• **Incidental take—**Site preparation and construction (including drilling and blasting) may result in the destruction pollinating insects in various life stages (incidental take).	• Construction	• Ontario Ministry of the Environment, Conservation and Parks • Environment and Climate Change Canada • Ontario Parks	• Mitigation measures noted above.	• Mitigation measures noted above.
WILDLIFE-39	• Pollinating Insects	• **Incidental take—**Site preparation and construction (including drilling and blasting) may result in the destruction pollinating insects in various life stages (incidental take).	• Operations	• Ontario Ministry of the Environment, Conservation and Parks • Environment and Climate Change Canada • Ontario Parks	• Not applicable.	• Mitigation measures noted above.
WILDLIFE-40	• Pollinating Insects	• **Collision with vehicles and equipment—**Project and public vehicles or heavy equipment use may cause injury or mortality to individual insects.	• Construction	• Ontario Ministry of the Environment, Conservation and Parks • Environment and Climate Change Canada • Ontario Parks	• An Environmental Protection Plan will be developed to minimize collisions between wildlife and vehicles during Construction.	• Provide driver training to construction workers to understand the importance of reducing vehicle speeds, spread awareness of local wildlife, give wildlife the right-of-way, communicate the presence of wildlife along access roads and on site to other employees, and mandatory reporting of wildlife collisions. • Worker transportation to site will be coordinated to reduce traffic volumes.
WILDLIFE-40	• Pollinating Insects	• **Collision with vehicles and equipment—**Project and public vehicles or heavy equipment use may cause injury or mortality to individual insects.	• Operations	• Ontario Ministry of the Environment, Conservation and Parks • Environment and Climate Change Canada • Ontario Parks	• Not applicable	• Speed limits will be posted and enforced to reduce vehicle speeds and associated collisions with wildlife. • Operations traffic will be restricted to approved right-of-way, workspace and access roads or trails. • Implement an Environmental Protection Plan that includes the following measures to minimize collisions between wildlife and vehicles during Maintenance: provide driver training to Maintenance workers to understand the importance of reducing vehicle speeds, spread awareness of local wildlife, give wildlife the right-of-way, communicate the presence of wildlife along access roads and on site to other employees, and mandatory reporting of wildlife collisions. • Worker transportation to site will be coordinated to reduce traffic volumes.

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Bird						
BIRD-01	• All bird Valued Components	• **Introduction and spread of invasive plant species**—can affect plant community composition, which can affect bird habitat availability and distribution.	• Construction	• Ministry of Natural Resources • Ontario Parks	• Prepare the environmental monitoring program that will contain mitigation measures to control invasive plant species.	• Implement the environmental monitoring program, including mitigation for invasive plant species. • A comprehensive list of mitigation measures to control invasive plant species during construction of the Project is provided in the Vegetation and Peatlands IDs.
BIRD-01	• All bird Valued Components	• **Introduction and spread of invasive plant species**—can affect plant community composition, which can affect bird habitat availability and distribution.	• Operations	• Ministry of Natural Resources • Ontario Parks	• Not applicable	• As per the Ministry of Transportation's *Weed Control Maintenance Best Practice (MBP-320)*, invasive plant species will be controlled using a combination of biological, chemical, cultural, manual, and mechanical control methods during operations (Ministry of Transportation, 2003).
BIRD-02	• All bird Valued Components	• **Emissions of criteria air contaminants—**Deposition of particulates in criteria air contaminant emissions (e.g., potential acid inputs) may change soil and vegetation quality and affect bird habitat availability and distribution.	• Construction	• Ministry of Transportation • Ontario Parks	• Potential mitigation measures outlined in the Ontario Ministry of Transportation's Environmental *Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions for Provincial Transportation Projects* (Ontario Ministry of Transportation, 2020) may be implemented during Detailed Design, if feasible. • Prepare the environmental monitoring program that will contain mitigation measures to control dust and air emissions.	• Implement the environmental monitoring program, including mitigation measures to control dust and air emissions. • A comprehensive list of mitigation measures that will be implemented to limit air particulate emissions during Construction is provided in the Atmospheric Environment IDs.
BIRD-02	• All bird Valued Components	• **Emissions of criteria air contaminants—**Deposition of particulates in criteria air contaminant emissions (e.g., potential acid inputs) may change soil and vegetation quality and affect bird habitat availability and distribution.	• Operations	• Ministry of Transportation • Ontario Parks	• Not applicable	• Implement the environmental monitoring program, including mitigation measures to control dust and air emissions.
BIRD-03	• All bird Valued Components	• **Fugitive dust emissions—** deposition of dust particulates may change soil and vegetation quality and affect bird habitat availability and distribution.	• Construction	• Ministry of Transportation • Ontario Parks	• Potential mitigation measures outlined in the Ontario Ministry of Transportation's Environmental *Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions for Provincial Transportation Projects* (Ontario Ministry of Transportation, 2020) may be implemented during Detailed Design, if feasible. • Prepare the environmental monitoring program that will contain mitigation measures to control dust and air emissions.	• Implement the environmental monitoring program, including mitigation measures to control dust and air emissions. • Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks and Ontario Ministry of Natural Resources, will be followed during Construction.
BIRD-03	• All bird Valued Components	• **Fugitive dust emissions—** deposition of dust particulates may change soil and vegetation quality and affect bird habitat availability and distribution.	• Operations	• Ministry of Transportation • Ontario Parks	• Not applicable	• Implement the environmental monitoring program, including mitigation measures to control dust and air emissions.

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BIRD-04	• All bird Valued Components	• **Erosion and sedimentation**—can alter surface water, groundwater, soil, and vegetation quality and affect bird habitat availability and distribution.	• Construction	• Ministry of Transportation • Fisheries and Oceans Canada • Ontario Parks	• Prepare the environmental monitoring program that will contain mitigation measures to control erosion and sedimentation. • Erosion and sediment control measures will be developed in accordance with Ontario Provincial Standard Specifications for erosion and sediment control measures (Ministry of Transportation, 2021a, 2021c).	• Implement the environmental monitoring program, including mitigation measures to control erosion and sedimentation during Construction. • Erosion and sediment control measures will be implemented in accordance with Ontario Provincial Standard Specifications for erosion and sediment control measures (Ministry of Transportation, 2021a, 2021c).
BIRD-04	• All bird Valued Components	• **Erosion and sedimentation**—can alter surface water, groundwater, soil, and vegetation quality and affect bird habitat availability and distribution.	• Operations	• Ministry of Transportation • Fisheries and Oceans Canada • Ontario Parks	• Not applicable	• Implement the environmental monitoring program, including mitigation • Mitigation identified in the Ministry of Transportation's Maintenance Quality Standards and Maintenance Best Practices for highway maintenance (Ministry of Transportation, 2003) will be implemented to minimize erosion and sedimentation during operations.
BIRD-05	• All bird Valued Components	• **Surface water quantity—** alteration of surface water drainage patterns, flows, and levels that can cause changes to soils and vegetation, which can affect bird habitat availability and distribution.	• Construction	• Ministry of the Environment, Conservation, and Parks • Fisheries and Oceans Canada • Ontario Parks	• Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks, Fisheries and Oceans Canada, and Ontario Ministry of Natural Resources, will be followed during Detailed Design.	• Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks, Fisheries and Oceans Canada, and Ontario Ministry of Natural Resources, will be followed during Construction.
BIRD-05	• All bird Valued Components	• **Surface water quantity—** alteration of surface water drainage patterns, flows, and levels that can cause changes to soils and vegetation, which can affect bird habitat availability and distribution.	• Operations	• Ministry of the Environment, Conservation, and Parks • Fisheries and Oceans Canada • Ontario Parks	• Not applicable	• Follow Ontario *Provincial Standard Specification 411* (Ministry of Transportation, 2022) and regularly inspect and maintain culverts and bridges.
BIRD-06	• All bird Valued Components	• **Surface water quality—** changes in surface water quality from Project activities could adversely affect bird habitat availability and distribution.	• Construction	• Ministry of the Environment, Conservation, and Parks • Fisheries and Oceans Canada • Ontario Parks	• Mitigations noted above.	• Adhere to federal and provincial regulations and guidelines regarding collection and storage of explosives and solid waste, such as the federal *Explosives Act*. • During the winter periods, sand will be used on the Community Access Road for de-icing instead of road salt.
BIRD-06	• All bird Valued Components	• **Surface water quality—** changes in surface water quality from Project activities could adversely affect bird habitat availability and distribution.	• Operations	• Ministry of the Environment, Conservation, and Parks • Fisheries and Oceans Canada • Ontario Parks	• Not applicable	• During the winter periods, sand will be used on the Community Access Road for de-icing instead of road salt. • Herbicides will not be used.
BIRD-07	• All bird Valued Components	• **Changes to Groundwater—** alteration of groundwater drainage and infiltration patterns, flows, and levels that can cause changes to	• Construction	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• Mitigations noted above.	• Mitigations noted above.

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		soils and vegetation, which can affect bird habitat availability and distribution.				
BIRD-07	• All bird Valued Components	• **Changes to Groundwater—** alteration of groundwater drainage and infiltration patterns, flows, and levels that can cause changes to soils and vegetation, which can affect bird habitat availability and distribution.	• Operations	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• Mitigations noted above.
BIRD-08	• All bird Valued Components	• **Increase in public access—** could affect bird survival and reproduction through legal and illegal hunting.	• Construction	• Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks	• Use existing roads and other linear disturbances where possible.	• Restrict access to the effects assessment Construction Disturbance Area to construction personnel and prohibit firearms. • Monitor central access corridors or have manned gate / security in place, during periods of high activity. • Block winter roads and temporary access routes and trails that are no longer required. • Install access controls (e.g., gates and boulders) to control public vehicle travel on some temporary access routes and trails.
BIRD-08	• All bird Valued Components	• **Increase in public access—** could affect bird survival and reproduction through legal and illegal hunting.	• Operations	• Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks	• Not applicable	• Potential changes in hunter and angler pressure, and fish and bird harvest will continue to be managed by Environment and Climate Change Canada, Ministry of Natural Resources, and Fisheries and Oceans Canada through licensing requirements and by establishing rules in terms of season length, bag / catch limits, and catch-and-release rules for waterbodies near the Project. • Local communities will be responsible for managing their resources by limiting fish catch to a sustainable level for each species.
BIRD-09	• All bird Valued Components	• **Incidental take—**vegetation removal and soil alterations during site preparation for Construction and Maintenance activities, and infrastructure (e.g., camp buildings) decommissioning may result in destruction of nests, eggs, and individuals of birds.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• The migratory bird nesting season and timing of construction activities should be considered during Detailed Design. • Micrositing the Project to avoid high-quality habitats and sensitive areas, to the extent feasible. • Avoiding high-quality habitats and sensitive areas for migratory bird species at risk, to the extent feasible. • Pileated woodpecker habitat assessments, including an evaluation based on aerial interpretation and ground-truthed ahead of pre-clearing activities. These assessments are meant to keep project activities in compliance with the *Migratory Birds Convention Act* (Government of Canada, 1994), specifically identified under the Migratory Birds Regulations in reference to pileated woodpecker. Pileated Woodpecker assessments will be completed in advance of the Project commencing construction, factoring in requirements for nest monitoring per Environment and Climate Change Canada guidance (for	• Vegetation clearing activities will occur from August 15 to April 27, outside the breeding season for most bird species, where possible. • If any vegetation clearing is required during the migratory bird nesting season (April 28 to August 14; Environment and Climate Change Canada, 2023), non-intrusive pre-clearing nest surveys will occur within 7 days prior to clearing. • If any areas are found to have birds exhibiting breeding behaviour, these areas, including an activity disturbance buffer, will be flagged and protected from disturbance until the fledglings have left the nest. • In addition to nest surveys during the migratory bird nesting season, wildlife sweeps will be completed outside of the nesting season to look for and document pileated woodpecker nesting cavities and raptor stick nests. Wildlife sweeps will focus on mature and old growth forest dominated by deciduous trees as these habitats are most likely to have large trees that can support raptor stick nests and pileated woodpecker nests. Wildlife sweeps will be led by avian biologists with support from Indigenous Environmental Monitors, where possible.

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					example, monitoring potential pileated woodpecker nest cavity trees for a period of 3 years).	• The effectiveness of mitigation measures will be evaluated during construction and operations, and mitigation measures will be modified or enhanced as necessary through adaptive management. • Prior to site clearing, wildlife sweeps will also be completed outside of the nesting season to look for and document pileated woodpecker nesting cavities and raptor stick nests. Wildlife sweeps will be focused on mature and old growth forest dominated by deciduous trees as these habitats are most likely to have large trees that can support raptor stick nests and pileated woodpecker nests. Wildlife sweeps will be completed within 10 days prior to vegetation clearing. • Raptor stick nests found during Construction will be marked and isolated as Environmentally Sensitive Sites and setbacks from construction activities and / or staged construction activities will be implemented. • If pileated woodpecker nest cavities are found during wildlife sweeps, the nests will be registered in the Abandoned Nest Registry and monitored for a minimum of 36 months to determine if the nests are actively being used by migratory birds. Any trees with pileated woodpecker nests will not be removed until they are determined to be inactive for at least 36 months after discovery.
BIRD-09	• All bird Valued Components	• **Incidental take—**vegetation removal and soil alterations during site preparation for Construction and Maintenance activities, and infrastructure (e.g., camp buildings) decommissioning may result in destruction of nests, eggs, and individuals of birds.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• The migratory bird nesting season and timing of activities should be considered during Maintenance. • As per the Ministry of Transportation*'s Environmental Protection for Migratory Birds (EP-4)* (Ministry of Transportation, 2003), bridges and culverts will be inspected for the presence of birds and / or nests prior to maintenance activities commencing.
BIRD-10	• All bird Valued Components	• **Collision with vehicles and equipment—**collisions of birds with vehicles or heavy equipment may cause injury or mortality to individual birds.	• Construction	• Royal Canadian Mounted Police • Ministry of Transportation • Ontario Parks	• Incorporating standard safe road design configurations in the detailed Project design. • Micrositing the Project to avoid high-quality habitats and sensitive areas, to the extent feasible. • Avoiding high-quality habitats and sensitive areas for migratory bird species at risk, to the extent feasible.	• Providing wildlife awareness training for road construction workers to reduce vehicle speeds. • Restricting access to the Project to construction personnel during Construction. • Restricting construction traffic to designated areas. • Blocking winter roads and temporary access routes and trails no longer required as construction proceeds.
BIRD-10	• All bird Valued Components	• **Collision with vehicles and equipment—**collisions of birds with vehicles or heavy equipment may cause injury or mortality to individual birds.	• Operations	• Royal Canadian Mounted Police • Ministry of Transportation • Ontario Parks	• Not applicable	• Posting and enforcement of an 80 km/hr speed limit during operations. • As per the Ministry of Transportation's Maintenance Quality Standard for *Brush Control (MQS-324)* and Maintenance Quality Standard for *Grass Control (MQS-326)*, mowing will be completed regularly to maintain vegetation at rest areas and within 185 m of road signs and other objects that need to be seen (e.g., guide rails) below 2 m in height (Ministry of Transportation, 2003).

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BIRD-11	• All bird Valued Components	• **Wildlife attractants—** attraction of wildlife to the Project site can affect bird survival and reproduction through increased mortality risk and changes to predator-prey relationships.	• Construction	• Environment and Climate Change Canada • Ministry of the Environment, Conservation, and Parks • Ontario Parks	• Prepare an environmental monitoring program that will include policies and actions for handling and storage of waste as well as management of materials and stockpiles.	• Implement the environmental monitoring program, including policies and actions for handling and storage of waste as well as management of materials and stockpiles. • Keeping building and storage container doors closed. • Tarping or fully wrapping structures that have nesting potential (e.g., camp buildings and shipping containers). It is important to avoid using nets or other cover types that could entangle birds and cause potential injury or mortality. • Sealing cracks and holes where birds can enter structures. • Place pallets and other small pieces of equipment low to the ground. • Keeping heavy equipment free of mud, as mud can attract birds, particularly swallows, which use mud to build nests. • Conducting frequent inspections of structures and equipment for evidence of birds, ideally every day during the nesting season, at dawn and dusk when birds are most active. • The slopes of material stockpiles will be maintained at 70 degrees or less to deter bank swallow nesting. • Hanging brightly coloured strips of fabric over slope faces to deter birds. These must be well secured and weighted at the bottom. • Placing geotextile, plastic covers, or tarping over slope faces or stockpiles to prevent access by birds. It is important to avoid using nets or other cover types that could entangle birds and cause potential injury or mortality. • All work areas will be clear of any attractants such as food scraps and food containers. • Food waste will be collected and temporarily stored in wildlife-proof containers. The containers will be transported offsite for recycling or disposed at a licensed disposal facility.
BIRD-11	• All bird Valued Components	• **Wildlife attractants—** attraction of wildlife to the Project site can affect bird survival and reproduction through increased mortality risk and changes to predator-prey relationships.	• Operations	• Environment and Climate Change Canada • Ministry of the Environment, Conservation, and Parks • Ontario Parks	• Not applicable	• The mitigation measures established and refined using adaptive management during Project Construction should be maintained during operations. • The slopes of material stockpiles will be maintained at 70 degrees or less to deter bank swallow nesting. • Hanging brightly coloured strips of fabric over slope faces to deter birds. These must be well secured and weighted at the bottom. • Placing geotextile, plastic covers, or tarping over slope faces or stockpiles to prevent access by birds. It is important to avoid using nets or other cover types that could entangle birds and cause potential injury or mortality. • If material stockpiles or Project infrastructure that may support nesting migratory birds need to be disturbed during the nesting season (April 28 to August 14; Environment and Climate Change Canada, 2023), non-intrusive pre-clearing nest surveys will occur within 7 days prior to maintenance activities beginning. If any areas are found to have birds exhibiting breeding behaviour, these areas, including an activity disturbance buffer, will be flagged and protected from disturbance until the fledglings have left the nest.

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						• As per the Ministry of Transportation's Maintenance Quality Standard for *Debris Control (MQS-331)*, debris less than one m in diameter, including roadkill, will be removed within 48 hours; debris greater than one m in diameter will be removed as detected (Ministry of Transportation, 2003). • Generally, roadkill will be removed from the effects assessment Community Access Road and relocated to adjacent brush areas, as per the Environmental Protection for *Waste and Excess Materials Management (EP-9)* requirements in the Ministry of Transportation's Maintenance Manual (Ministry of Transportation, 2003). As per the Waste and Excess Materials Management Environmental Protection requirements in the Maintenance Manual, depending on the location and weather at the time of roadkill removal, burial of small mammals occur in the roadside ditches. • Rest areas will be available every 50 km along the road during operations. The rest areas will be staggered every 25 km, alternating on each side of the highway. These rest areas will contain waste receptacles. As per the Ministry of Transportation's Maintenance Best Practice for *Rest Area/Picnic Site Maintenance (MBP-325)*, during the rest areas operating season (i.e., months during the year when temperatures remain above 0°C and closing no sooner than October 15), litter in waste receptacles will be removed from rest areas when waste receptacles are 75% full (Ministry of Transportation, 2003).
BIRD-12	• All bird Valued Components	• **Blasting and fly rock—**may result in injury or mortality to birds.	• Construction	• Ministry of the Environment, Conservation, and Parks • Ontario Parks	• Prepare an environmental monitoring program that will include policies and actions for avoiding and minimizing the risks of blasting and blasting materials to wildlife.	• Implement the environmental monitoring program during Construction, including policies and actions for avoiding and minimizing the risks of blasting and blasting materials to wildlife.
BIRD-12	• All bird Valued Components	• **Blasting and fly rock—**may result in injury or mortality to birds.	• Operations	• Ministry of the Environment, Conservation, and Parks • Ontario Parks	• Not applicable.	• The mitigation measures established and refined using adaptive management during Project Construction should be maintained during Maintenance. • Implement the environmental monitoring plan during Maintenance, including policies and actions for avoiding and minimizing the risks of blasting and blasting materials to wildlife.
BIRD-13	• All bird Valued Components	• **Chemical or hazardous material stored on the Project site, or spills**—(e.g., petroleum products, ammonium nitrate) can affect bird survival and reproduction.	• Construction	• Ministry of the Environment, Conservation, and Parks • Environment and Climate Change Canada • Ontario Parks	• Prepare an environmental monitoring program that will include policies and actions for managing spills.	• Implement the environmental monitoring program, including include policies and actions for managing spills. • Meet the federal *Transportation of Dangerous Goods Act*, provincial *Dangerous Goods Transportation Act*, and the provincial *Environmental Protection Act* for the transport, storage, and handling of fuels required for Construction.
BIRD-13	• All bird Valued Components	• **Chemical or hazardous material stored on the Project site, or spills**—(e.g., petroleum products, ammonium nitrate) can affect	• Operations	• Ministry of the Environment, Conservation, and Parks • Environment and Climate Change Canada • Ontario Parks	• Not applicable	• The mitigation measures established and refined using adaptive management during Project Construction should be maintained during Maintenance. • Meet the federal *Transportation of Dangerous Goods Act*, provincial *Dangerous Goods Transportation Act*, and the provincial

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		bird survival and reproduction.				*Environmental Protection Act* for the transport, storage, and handling of fuels required for Maintenance. • Commercial vehicles who are transporting dangerous goods on the Community Access Road should be adhering to the federal *Transportation of Dangerous Goods Act* and provincial *Dangerous Goods Transportation Ac*t.
BIRD-14	• Red-eyed vireo	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks and Ontario Ministry of Natural Resources, will be followed during Detailed Design. • Limit the Project footprint to the extent feasible. • Use existing access roads where possible. • A Preliminary Biodiversity Offset Plan (Appendix AB) has been developed to have no net loss of bird habitat.	• Where possible, decommission and rehabilitate temporary access roads, staging areas, camps, and debris and / or timber stockpiles following Construction. • Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks and Ontario Ministry of Natural Resources, will be followed during Construction.
BIRD-14	• Red-eyed vireo	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks and Ontario Ministry of Natural Resources, will be followed during operations. • A Before-After Control-Impact study is proposed for operations monitoring. Data from operations monitoring will be compared to data from reference sites (i.e., sites not affected by disturbance) and data collected prior to construction (i.e., baseline survey [2018-2022] point count and autonomous recording unit data) to determine population trends and determine if predictions made in the Environmental Assessment are valid. • Autonomous recording unit and point count surveys at selected reference sites (in other words, locations surveyed in the alternative Project route Local Study Area during breeding bird, nightjar, and marsh bird baseline surveys from 2018 to 2022). Autonomous recording unit and point count surveys will be completed every 2 years for a period of 6 years; the need for surveys beyond 6 years will be determined in consultation with Environment and Climate Change Canada. • Two roadside North American Breeding Bird Survey routes (each 40 km long and containing 50 survey locations) will be initiated along the Project (in other words, one transect along the southern portion of the Project and one transect along the northern portion of the Project). The placement of each route will be negotiated with Environment and Climate Change Canada. Each route will be surveyed annually with the goal for the routes to be completed by the same observer for a period of 5 years; the need for surveys beyond 5 years will be determined in consultation with Environment and Climate Change Canada. Surveys will be completed in accordance with Environment and Climate Change Canada and United States Geological Survey standards. Refer to

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						the Preliminary Biodiversity Offset Plan (Appendix AB) for more information. • Three roadside Canadian Nightjar Survey routes (each 20 km long and containing 12 survey locations) will be initiated along the Project (in other words, one transect along the southern portion of the Project, one transect along the middle portion of the Project, and one transect along the northern portion of the Project). Nightjar surveys will be focused on the detection of Common Nighthawk and Eastern Whip-poor-will. The placement of each route will be negotiated with Birds Canada and / or Environment and Climate Change Canada. Each route will be surveyed annually with the goal for the routes to be completed by the same observer for a period of 5 years; the need for surveys beyond 5 years will be determined in consultation with Environment and Climate Change Canada. Surveys will be completed in accordance with Birds Canada survey standards. Refer to the Preliminary Biodiversity Offset Plan (Appendix AB) for more information. • A minimum of 10 Marsh Monitoring Program survey stations will be initiated along the Project (in other words, spaced evenly along the Project, where suitable habitat is present). The placement of each station will be negotiated with Birds Canada and / or Environment and Climate Change Canada. Each survey station will be surveyed annually with the goal for the routes to be completed by the same observer for a period of 5 years; the need for surveys beyond 5 years will be determined in consultation with Environment and Climate Change Canada. Surveys will be completed in accordance with Birds Canada survey standards. Refer to the Preliminary Biodiversity Offset Plan (Appendix AB) for more information. • A minimum of 20 targeted survey stations for Short-eared Owl will be surveyed each year, over a period of 3 years along the Project (in other words, spaced evenly along the Project, where suitable habitat is present; total of 60 surveys). Each survey station will be surveyed a minimum of once over the 3-year period of monitoring and the total monitoring effort will equal or be greater than 60 survey stations completed. Survey stations are not anticipated to be repeated to align with greater spatial coverage throughout the Project. The placement of each station will be chosen to align with the species breeding habitat.
BIRD-15	• Red-eyed vireo	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and connectivity (movement and behaviour), and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• The migratory bird nesting season and timing of construction activities should be considered during Detail Design. • Micrositing the Project to avoid high-quality habitats and sensitive areas, to the extent feasible. • A Preliminary Biodiversity Offset Plan (Appendix AB) has been developed to have no net loss of bird habitat.	• Complete work as quickly as possible to shorten the duration of disturbance. • The migratory bird nesting season and timing of activities should be considered during Construction. Clearing activities should occur from August 15 to April 27 (outside the migratory bird nesting season); if any clearing is required during the breeding bird season, non-intrusive pre-clearing nest surveys will occur within 7 days of the clearing; buffers will be established around each nest, and clearing activities will be restricted near active bird nests or pileated woodpecker nest cavities. • Follow guidance as outlined in Environment and Climate Change Canada's *Avoidance Guidelines for Migratory Birds*.

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						• Surveys will be conducted for ecologically sensitive sites prior to construction; marking, isolation and setbacks implemented if these sites are found. • Control lighting required for construction of the Project, including direction (e.g., focused on work areas and away from undisturbed areas) and timing (e.g., minimize work at night) to minimize effects on birds, while meeting health and safety requirements. • Wildlife awareness training will be provided for road construction workers to reduce vehicle speeds and associated noise and dust emission levels. • Restricting construction traffic to designated areas. • Industry best practices will be used for blasting activities, including scheduling outside of sensitive periods when in the vicinity of sensitive wildlife sites. • Multi-passenger vehicles (e.g., buses) will be used to transport workers to site when practicable.
BIRD-15	• Red-eyed vireo	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and connectivity (movement and behaviour), and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• During Maintenance, complete work as quickly as possible to shorten the duration of disturbance. • The migratory bird nesting season and timing of activities should be considered during Maintenance. • Posting and enforcement of an 80 km/hr speed limit to reduce vehicle speeds and associated noise and dust emission levels. • A Before-After Control-Impact study is proposed for operations monitoring. Data from operations monitoring will be compared to data from reference sites (i.e., sites not affected by disturbance) and data collected prior to construction (i.e., baseline survey [2018-2022] point count and autonomous recording unit data) to determine population trends and determine if predictions made in the Environmental Assessment are valid.
BIRD-16	• Ovenbird	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may have effects on habitat abundance, connectivity, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo.	• See habitat loss mitigations presented for red-eyed vireo.
BIRD-16	• Ovenbird	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may have effects on habitat abundance, connectivity, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo.
BIRD-17	• Ovenbird	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and connectivity (movement and behaviour), and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo.	• See sensory disturbance mitigations presented for red-eyed vireo.

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BIRD-17	• Ovenbird	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and connectivity (movement and behaviour), and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo.
BIRD-18	• Ovenbird	• **Increase in edge habitat—** can change predator-prey dynamics and influence bird survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• Habitat loss may result in increased edge habitat. See habitat loss mitigations presented for red-eyed vireo.	• Habitat loss may result in increased edge habitat. See habitat loss mitigations presented for red-eyed vireo.
BIRD-18	• Ovenbird	• **Increase in edge habitat—** can change predator-prey dynamics and influence bird survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• Habitat loss may result in increased edge habitat. See habitat loss mitigations presented for red-eyed vireo.
BIRD-19	• Dark-eyed junco	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo.	• See habitat loss mitigations presented for red-eyed vireo.
BIRD-19	• Dark-eyed junco	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo.
BIRD-20	• Dark-eyed junco	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and connectivity (movement and behaviour), and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo.	• See sensory disturbance mitigations presented for red-eyed vireo.
BIRD-20	• Dark-eyed junco	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and connectivity (movement and behaviour), and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo.
BIRD-21	• Osprey	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability,	• Construction	• Ministry of the Environment, Conservation and Parks	• See habitat loss mitigations presented for red-eyed vireo	• See habitat loss mitigations presented for red-eyed vireo

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		use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.		• Ontario Parks		
BIRD-21	• Osprey	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo
BIRD-22	• Osprey	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and connectivity (movement and behaviour), and survival and reproduction.	• Construction	• Ministry of the Environment, Conservation, and Parks • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo.	• See sensory disturbance mitigations presented for red-eyed vireo.
BIRD-22	• Osprey	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and connectivity (movement and behaviour), and survival and reproduction.	• Operations	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo.
BIRD-23	• Boreal owl	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Construction	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo.	• See habitat loss mitigations presented for red-eyed vireo.
BIRD-23	• Boreal owl	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo.
BIRD-24	• Wilson's snipe	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo.	• See habitat loss mitigations presented for red-eyed vireo.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
		availability, distribution, and survival and reproduction.				
BIRD-24	• Wilson's snipe	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo.
BIRD-25	• Wilson's snipe	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and connectivity (movement and behaviour), and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo.	• See sensory disturbance mitigations presented for red-eyed vireo.
BIRD-25	• Wilson's snipe	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and connectivity (movement and behaviour), and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo.
BIRD-26	• Mallard	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo.	• See habitat loss mitigations presented for red-eyed vireo.
BIRD-26	• Mallard	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo.
BIRD-27	• Mallard	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird survival and reproduction by reducing individual's ability to detect approaching predators and species communications.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo.	• See sensory disturbance mitigations presented for red-eyed vireo.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
BIRD-27	• Mallard	• **Sensory disturbance -** (e.g., lights, smells, noise, human activity) can alter bird survival and reproduction by reducing individual's ability to detect approaching predators and species communications.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo.
BIRD-28	• Palm Warbler	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo.	• See habitat loss mitigations presented for red-eyed vireo.
BIRD-28	• Palm Warbler	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo.
BIRD-29	• Palm Warbler	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and connectivity (movement and behaviour), and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo.	• See sensory disturbance mitigations presented for red-eyed vireo.
BIRD-29	• Palm Warbler	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and connectivity (movement and behaviour), and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo.
BIRD-30	• Palm Warbler	• **Increase in edge habitat—** can change predator-prey dynamics and influence bird survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• Habitat loss may result in increased edge habitat. See habitat loss mitigations presented for red-eyed vireo.	• Habitat loss may result in increased edge habitat. See habitat loss mitigations presented for red-eyed vireo.
BIRD-30	• Palm Warbler	• **Increase in edge habitat—** can change predator-prey dynamics and influence bird survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• Habitat loss may result in increased edge habitat. See habitat loss mitigations presented for red-eyed vireo.
BIRD-31	• Common Yellowthroat	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may have effects on habitat abundance,	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo.	• See habitat loss mitigations presented for red-eyed vireo.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
		connectivity, and survival and reproduction.				
BIRD-31	• Common Yellowthroat	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may have effects on habitat abundance, connectivity, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo.
BIRD-32	• Common Yellowthroat	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and connectivity (movement and behaviour), and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo.	• See sensory disturbance mitigations presented for red-eyed vireo.
BIRD-32	• Common Yellowthroat	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and connectivity (movement and behaviour), and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo.
BIRD-33	• Northern Waterthrush	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo.	• See habitat loss mitigations presented for red-eyed vireo.
BIRD-33	• Northern Waterthrush	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo.
BIRD-34	• Northern Waterthrush	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and connectivity (movement and behaviour), and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo.	• See sensory disturbance mitigations presented for red-eyed vireo.
BIRD-34	• Northern Waterthrush	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
		connectivity (movement and behaviour), and survival and reproduction.				
BIRD-35	• Northern Waterthrush	• **Increase in edge habitat—** can change predator-prey dynamics and influence bird survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• Habitat loss may result in increased edge habitat. See habitat loss mitigations presented for red-eyed vireo.	• Habitat loss may result in increased edge habitat. See habitat loss mitigations presented for red-eyed vireo.
BIRD-35	• Northern Waterthrush	• **Increase in edge habitat—** can change predator-prey dynamics and influence bird survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• Habitat loss may result in increased edge habitat. See habitat loss mitigations presented for red-eyed vireo.
BIRD-36	• Sora	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo.	• See habitat loss mitigations presented for red-eyed vireo.
BIRD-36	• Sora	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo.
BIRD-37	• Sora	• **Sensory disturbance**—(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and connectivity (movement and behaviour), and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo.	• See sensory disturbance mitigations presented for red-eyed vireo.
BIRD-37	• Sora	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and connectivity (movement and behaviour), and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo.
BIRD-38	• Canada Warbler	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• The Project will be routed to avoid high-quality habitats and sensitive areas for migratory bird species at risk to the extent feasible. • See habitat loss mitigations presented for red-eyed vireo.	• See habitat loss mitigations presented for red-eyed vireo.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
BIRD-38	• Canada Warbler	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo.
BIRD-39	• Canada Warbler	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use and connectivity (movement and behaviour), and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• The Project will be routed to avoid high-quality habitats and sensitive areas for migratory bird species at risk to the extent feasible. • See sensory disturbance mitigations presented for red-eyed vireo.	• See sensory disturbance mitigations presented for red-eyed vireo.
BIRD-39	• Canada Warbler	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use, and connectivity (movement and behaviour), and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo.
BIRD-40	• Evening Grosbeak	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.
BIRD-40	• Evening Grosbeak	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.
BIRD-41	• Evening Grosbeak	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use, and connectivity (movement and behaviour), and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.
BIRD-41	• Evening Grosbeak	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use, and	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
		connectivity (movement and behaviour), and survival and reproduction.				
BIRD-42	• Chimney Swift, Bank Swallow, and Barn swallow	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.
BIRD-42	• Chimney Swift, Bank Swallow, and Barn swallow	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.
BIRD-43	• Chimney Swift, Bank Swallow, and Barn swallow	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use, and connectivity (movement and behaviour), and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.
BIRD-43	• Chimney Swift, Bank Swallow, and Barn swallow	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use, and connectivity (movement and behaviour), and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.
BIRD-44	• Common Nighthawk and Eastern Whip-poor-will	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.
BIRD-44	• Common Nighthawk and Eastern Whip-poor-will	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
BIRD-45	• Common Nighthawk and Eastern Whip-poor-will	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use, and connectivity (movement and behaviour), and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.
BIRD-45	• Common Nighthawk and Eastern Whip-poor-will	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use, and connectivity (movement and behaviour), and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.
BIRD-46	• Common Nighthawk and Eastern Whip-poor-will	• **Increase in edge habitat**—can change predator-prey dynamics and influence bird survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• Habitat loss may result in increased edge habitat. See habitat loss mitigations presented for red-eyed vireo.	• Habitat loss may result in increased edge habitat. See habitat loss mitigations presented for red-eyed vireo.
BIRD-46	• Common Nighthawk and Eastern Whip-poor-will	• **Increase in edge habitat**—can change predator-prey dynamics and influence bird survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• Habitat loss may result in increased edge habitat. See habitat loss mitigations presented for red-eyed vireo.
BIRD-47	• Eastern Wood-pewee	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks • Ministry of the Environment, Conservation and Parks	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.
BIRD-47	• Eastern Wood-pewee	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.
BIRD-48	• Eastern Wood-pewee	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use, and connectivity (movement and	• Construction	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
		behaviour), and survival and reproduction.				
BIRD-48	• Eastern Wood-pewee	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, use, and connectivity (movement and behaviour), and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.
BIRD-49	• Olive-sided Flycatcher	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.
BIRD-49	• Olive-sided Flycatcher	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.
BIRD-50	• Olive-sided Flycatcher	• **Sensory disturbance**—(e.g., lights, smells, noise, human activity) can bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.
BIRD-50	• Olive-sided Flycatcher	• **Sensory disturbance**—(e.g., lights, smells, noise, human activity) can bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.
BIRD-51	• Bald Eagle	• **Habitat loss**—the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Construction	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.
BIRD-51	• Bald Eagle	• **Habitat loss**—the direct removal or alteration of soil and vegetation that may	• Operations	• Ministry of the Environment, Conservation and Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.

Table 2: Land Commitments

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
		change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.		• Ontario Parks		
BIRD-52	• Bald Eagle	• **Sensory disturbance**—(e.g., lights, smells, noise, human activity) can alter bird habitat availability, distribution, and survival and reproduction.	• Construction	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.
BIRD-52	• Bald Eagle	• **Sensory disturbance**—(e.g., lights, smells, noise, human activity) can alter bird habitat availability, distribution, and survival and reproduction.	• Operations	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.
BIRD-53	• Short-eared Owl	• **Habitat loss**—the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Construction	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.
BIRD-53	• Short-eared Owl	• **Habitat loss**—the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.
BIRD-54	• Short-eared Owl	• **Sensory disturbance**—(e.g., lights, smells, noise, human activity) can alter bird habitat availability, distribution, and survival and reproduction.	• Construction	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.
BIRD-54	• Short-eared Owl	• **Sensory disturbance**—(e.g., lights, smells, noise, human activity) can alter bird habitat availability, distribution, and survival and reproduction.	• Operations	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.
BIRD-55	• Short-eared Owl	• **Increase in edge habitat**—can change predator-prey dynamics and influence bird survival and reproduction.	• Construction	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• Habitat loss may result in increased edge habitat. See habitat loss mitigations presented for red-eyed vireo.	• Habitat loss may result in increased edge habitat. See habitat loss mitigations presented for red-eyed vireo.
BIRD-55	• Short-eared Owl	• **Increase in edge habitat**—can change predator-prey	• Operations	• Ministry of the Environment, Conservation and Parks	• Not applicable	• Habitat loss may result in increased edge habitat. See habitat loss mitigations presented for red-eyed vireo.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
		dynamics and influence bird survival and reproduction.		• Ontario Parks		
BIRD-56	• Lesser Yellowlegs	• **Habitat loss**—the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.
BIRD-56	• Lesser Yellowlegs	• **Habitat loss**—the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.
BIRD-57	• Lesser Yellowlegs	• **Sensory disturbance**—(e.g., lights, smells, noise, human activity) can alter bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.
BIRD-57	• Lesser Yellowlegs	• **Sensory disturbance**—(e.g., lights, smells, noise, human activity) can alter bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.
BIRD-58	• Rusty Blackbird	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.
BIRD-58	• Rusty Blackbird	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
BIRD-59	• Rusty Blackbird	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.
BIRD-59	• Rusty Blackbird	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.
BIRD-60	• Rusty Blackbird	• **Increase in edge habitat—** can change predator-prey dynamics and influence bird survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo.	• See habitat loss mitigations presented for red-eyed vireo.
BIRD-60	• Rusty Blackbird	• **Increase in edge habitat—** can change predator-prey dynamics and influence bird survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• Habitat loss may result in increased edge habitat. See habitat loss mitigations presented for red-eyed vireo.
BIRD-61	• Yellow Rail	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.
BIRD-61	• Yellow Rail	• **Habitat loss—**the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See habitat loss mitigations presented for red-eyed vireo and Canada warbler.
BIRD-62	• Yellow Rail	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, distribution, and survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ontario Parks	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.
BIRD-62	• Yellow Rail	• **Sensory disturbance—**(e.g., lights, smells, noise, human activity) can alter bird habitat availability, distribution, and survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See sensory disturbance mitigations presented for red-eyed vireo and Canada warbler.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
Ungulate						
UNGULATE - 01	• Caribou and Moose	• **Introduction and spread of invasive plant species**—Introduction of invasive plants from Project activities can affect plant community composition, which can affect ungulate habitat availability and distribution.	• Construction	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• Prepare the environmental monitoring program that will contain mitigation measures to control invasive plant species.	• Implement the environmental monitoring program, including mitigation for invasive plant species. • A comprehensive list of mitigation measures to control weeds during construction of the Project is provided in the Vegetation and Peatlands IDs.
UNGULATE - 01	• Caribou and Moose	• **Introduction and spread of invasive plant species**—Introduction of invasive plants from Project activities can affect plant community composition, which can affect ungulate habitat availability and distribution.	• Operations	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• Not applicable.	• As per the Ministry of Transportation's Maintenance Best Practice for *Weed Control (MBP-320)*, invasive plant species will be controlled using a combination of biological, chemical, cultural, manual, and mechanical control methods during operations (Ministry of Transportation, 2003).
UNGULATE - 02	• Caribou and Moose	• **Emissions of Criteria Air Contaminants**—Deposition of criteria air contaminant emissions (e.g., potential acid inputs) may change soil quality and vegetation and affect ungulate habitat availability and distribution.	• Construction	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	▪ Potential mitigation measures outlined in the Ontario Ministry of Transportation's *Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions of Provincial Transportation Projects* (Ontario Ministry of Transportation, 2020) may be implemented during Detailed Design, if feasible. • Prepare the environmental monitoring program that will contain mitigation measures to control dust and air emissions.	▪ Implement the environmental monitoring program, including mitigation measures to control dust and air emissions. ▪ Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks and Ontario Ministry of Natural Resources, will be followed during Construction. • A comprehensive list of mitigation measures that will be implemented to limit air particulate emissions during Construction is provided in the Atmospheric Environment IDs.
UNGULATE - 02	• Caribou and Moose	• **Emissions of Criteria Air Contaminants**—Deposition of criteria air contaminant emissions (e.g., potential acid inputs) may change soil quality and vegetation and affect ungulate habitat availability and distribution.	• Operations	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• Not applicable	• Implement the environmental monitoring program, including mitigation measures to control dust and air emissions.
UNGULATE – 03	• Caribou and Moose	• **Fugitive Dust Emissions**—Deposition of dust particulates may change soil and vegetation quality and affect ungulate habitat availability and distribution.	• Construction	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• Prepare the environmental monitoring program that will contain mitigation measures to control dust and air emissions.	• Implement the environmental monitoring program, including mitigation measures to control dust and air emissions. • A comprehensive list of mitigation measures that will be implemented to limit air particulate emissions during Construction is provided in the Atmospheric Environment IDs.

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UNGULATE – 03	• Caribou and Moose	• **Fugitive Dust Emissions**—Deposition of dust particulates may change soil and vegetation quality and affect ungulate habitat availability and distribution.	• Operations	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• Not applicable	• Implement the environmental monitoring program, including mitigation measures to control dust and air emissions.
UNGULATE - 04	• Caribou and Moose	• **Erosion and Sedimentation**—Vegetation clearing, earth moving, pit and quarry development and other Project activities can result in the release of sediment, which may change the composition and function of vegetation communities and affect ungulate habitat availability and distribution.	• Construction	• Fisheries and Oceans Canada • Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• Prepare the environmental monitoring program that will contain mitigation measures to control erosion and sedimentation. • Erosion and sediment control measures will be developed in accordance with Ontario Provincial Standard Specifications for erosion and sediment control measures (Ministry of Transportation, 2021a, 2021c).	• Implement the environmental monitoring program, including mitigation measures to control erosion and sedimentation during Construction. • Erosion and sediment control measures will be implemented in accordance with Ontario Provincial Standard Specifications for erosion and sediment control measures (Ministry of Transportation, 2021a, 2021c). • A comprehensive list of mitigation measures that will be implemented during Construction is provided in Vegetation and Surface Water IDs.
UNGULATE - 04	• Caribou and Moose	• **Erosion and Sedimentation**—Vegetation clearing, earth moving, pit and quarry development and other Project activities can result in the release of sediment, which may change the composition and function of vegetation communities and affect ungulate habitat availability and distribution.	• Operations	• Fisheries and Oceans Canada • Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• Not applicable	• Implement the environmental monitoring program, including mitigation measures to control erosion and sedimentation during Maintenance. • Erosion and sediment control measures will be implemented in accordance with Ontario Provincial Standard Specifications for erosion and sediment control measures (Ministry of Transportation, 2021a, 2021c). • The mitigation measures established and refined using adaptive management during Project Construction should be maintained during operations. • Mitigation identified in the Ministry of Transportation's Maintenance Quality Standards and Maintenance Best Practices for highway maintenance (Ministry of Transportation, 2003) will be implemented to minimize erosion and sedimentation during operations.
UNGULATE - 05	• Caribou and Moose	• **Changes in Surface Water Quantity**—Alteration of surface water drainage patterns, flows and levels that can cause changes to soils and vegetation, which can affect ungulate habitat availability and distribution.	• Construction	• Fisheries and Oceans Canada • Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• A comprehensive list of mitigation measures to limit changes to surface water quantity during Detail Design is provided in the Surface Water IDs.	• Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks, Fisheries and Oceans Canada, and Ontario Ministry of Natural Resources, will be followed during Construction.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
UNGULATE - 05	• Caribou and Moose	• **Changes in Surface Water Quantity**—Alteration of surface water drainage patterns, flows and levels that can cause changes to soils and vegetation, which can affect ungulate habitat availability and distribution.	• Operations	• Fisheries and Oceans Canada • Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• Not applicable	• The mitigation measures established and refined using adaptive management during Project Construction should be maintained during operations. • Follow *Ontario Provincial Standard Specification 411* (Ministry of Transportation, 2022) and regularly inspect and maintain culverts and bridges. • Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks, Fisheries and Oceans Canada, and Ontario Ministry of Natural Resources, will be followed during operations.
UNGULATE - 06	• Caribou and Moose	• **Changes in Surface Water Quality**—Changes in surface water quality from Project activities could adversely affect habitat availability and distribution.	• Construction	• Fisheries and Oceans Canada • Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks, Fisheries and Oceans Canada, and Ontario Ministry of Natural Resources, will be followed during Detailed Design. • A comprehensive list of mitigation measures to limit changes to surface water quality during Detail design is provided in the Surface Water IDs.	• Adhere to federal and provincial regulations and guidelines regarding collection and storage of explosives and solid waste, such as the federal *Explosives Act*. • During the winter periods, sand will be used on the Community Access Road for de-icing instead of road salt. • Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks, Fisheries and Oceans Canada, and Ontario Ministry of Natural Resources, will be followed during Construction. • A comprehensive list of mitigation measures to limit changes to surface water quality during Construction is provided in the Surface IDs.
UNGULATE - 06	• Caribou and Moose	• **Changes in Surface Water Quality**—Changes in surface water quality from Project activities could adversely affect habitat availability and distribution.	• Operations	• Fisheries and Oceans Canada • Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• Not applicable	• The mitigation measures established and refined using adaptive management during Project Construction should be maintained during operations. • During the winter periods, sand will be used on the Community Access Road for de-icing instead of road salt.
UNGULATE - 07	• Caribou and Moose	• **Changes in Groundwater**—Alteration of groundwater drainage and infiltration patterns, flows, and levels that can cause changes to soils and vegetation, which can affect ungulate habitat availability and distribution.	• Construction	• Fisheries and Oceans Canada • Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• A comprehensive list of mitigation measures to limit changes to groundwater quantity during Detail design is provided in the Surface Water Technical Support Document (Appendix F).	• A comprehensive list of mitigation measures to limit changes to groundwater quantity during Construction is provided in the Groundwater IDs.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
UNGULATE - 07	• Caribou and Moose	• **Changes in Groundwater**—Alteration of groundwater drainage and infiltration patterns, flows, and levels that can cause changes to soils and vegetation, which can affect ungulate habitat availability and distribution.	• Operations	• Fisheries and Oceans Canada • Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• Not applicable	• The mitigation measures established and refined using adaptive management during Project Construction should be maintained during operations.
UNGULATE - 08	• Caribou and Moose	• **Increase in Wildlife Attractants**—Attraction of wildlife to the Project site (e.g., food waste, sewage, petroleum-based products, dust suppressants, explosive powder, site runoff ponds) may increase human-wildlife interactions and change predator-prey relationships, which can affect animal survival and reproduction.	• Construction	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• Prepare an Environmental Protection Plan that includes policies and actions anticipated to mitigate the attraction of wildlife to the Construction Disturbance Area, particularly near the temporary construction staging areas and temporary construction camps. • Prepare a Waste Management Plan that describe the appropriate management of solid, liquid and hazardous waste, including: • Construction-related garbage, debris, and surplus materials. • Hazardous materials such as used oil, filter and grease cartridges, lubrication containers. • Domestic garbage and camp waste (i.e., food and grey water). Portable, secure, solid waste receptacles will be provided on work sites, temporary laydown areas and temporary construction camps and periodically emptied. • The method of domestic sewage disposal at temporary construction camps will be determined during detail design. Options may include holding tank systems with offsite disposal or onsite leaching beds designed in accordance with applicable codes and approvals. All required permits and authorizations will be acquired for construction and operation of these. Where subsurface sewage disposal systems are proposed, they will be designed in accordance with the Ontario Building Code for systems under 10,000 L/day. For systems exceeding this threshold, approval under Section 53 of the *Ontario Water Resources Act* (Government of Ontario, 1990a) will be obtained. If required and when feasible, domestic wastewater will be removed by approved disposal trucks and disposed of at wastewater treatment plants with the authorization and capacity to accept this wastewater.	• Implement the Environmental Protection Plan, including policies and actions for handling and storage of waste as well as management of materials and stockpiles. • Construction staff will be educated about hazards of littering and feeding wildlife. A no littering policy will be implemented and enforced. • All work areas will be clear of any attractants such as food scraps and food containers. • Feeding and harassment of wildlife on site will be prohibited. • De-icing salts will not be used on the unpaved Community Access Road during construction or operation. • Roadkill will be cleaned up during construction and operation following best management practices outlined by Ontario's Ministry of Transportation. • Collect domestic (e.g., food) and industrial (e.g., used oil and lubricants) waste and store temporarily in wildlife-proof containers. Transport all waste offsite for recycling or disposal at a licensed disposal facility. • Potentially toxic materials that attract wildlife will be stored in secure areas inaccessible to wildlife (e.g., buildings, storage areas surrounded by wildlife-proof fencing), and toxic materials will be monitored continuously when removed from storage until they are used or returned to storage to prevent wildlife accessing and ingesting the materials. • Empty chemical toilets on site regularly by a licensed sewage-handling contractor.

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UNGULATE - 08	• Caribou and Moose	• **Increase in Wildlife Attractants**—Attraction of wildlife to the Project site (e.g., food waste, sewage, petroleum-based products, dust suppressants, explosive powder, site runoff ponds) may increase human-wildlife interactions and change predator-prey relationships, which can affect animal survival and reproduction.	• Operations	• Environment and Climate Change Canada • Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• Not applicable	• The mitigation measures established and refined using adaptive management during Project Construction should be maintained during operations. • As per the Ministry of Transportation's Maintenance Quality Standard for *Debris Control (MQS-331)*, debris less than 1 m in diameter, including roadkill, will be removed within 48 hours; debris greater than 1 m in diameter will be removed as detected (Ministry of Transportation, 2003). • Generally, roadkill will be removed from the effects assessment Construction Disturbance Area and relocated to adjacent brush areas, as per the Environmental Protection for *Waste and Excess Materials Management (EP-9)* requirements in the Ministry of Transportation's Maintenance Manual (Ministry of Transportation, 2003). As per the Waste and Excess Materials Management Environmental Protection requirements in the Maintenance Manual, depending on the location and weather at the time of roadkill removal, burial of small mammals occur in the roadside ditches, if this activity is permitted under a Certificate of Approval for Waste Management System (Ministry of Transportation, 2003). • Rest areas will be available every 50 km along the road during operations. The rest areas will be staggered every 25 km, alternating on each side of the highway. These rest areas will contain waste receptacles. As per the Ministry of Transportation's Maintenance Best Practice for *Rest Area/Picnic Site (MBP-325)*, during the rest areas operating season (i.e., months during the year when temperatures remain above 0°C and closing no sooner than October 15), litter in waste receptacles will be removed from rest areas when waste receptacles are 75% full (Ministry of Transportation, 2003).
UNGULATE - 09	• Caribou and Moose	• **Blasting and Associated Fly Rock**—May result in injury or mortality to wildlife.	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Prepare a Blasting and Communication Management Plan that is in accordance with Ontario Provincial Standard Specification *General Specifications for the Use of Explosives* (Ministry of Transportation, 2025b) and describes specific measures that would be implemented if blasting is required. • Prepare an Environmental Protection Plan that includes policies and actions for avoiding and minimizing the risks of blasting and blasting materials to wildlife, including ungulates.	• Implement the Environmental Protection Plan during Construction, including policies and actions for avoiding and minimizing the risks of blasting and blasting materials to wildlife. • A comprehensive list of mitigation measures to minimize effects from blasting during construction and operations is provided in the Acoustic and Vibration IDs. • Blasting work will be completed as quickly as possible to shorten the duration of disturbance. • Blasting will be suspended within 10 km of known or potential caribou Category 1 areas during sensitive periods to minimize sensory disturbances (nursery areas: May 1 to July 14 very low tolerance, July 15 to September 15 low tolerance; winter use areas: December 1 to March 31). If timing windows cannot be adhered to, follow environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks and Ontario Ministry of Natural Resources. • Open excavations and blasting areas will be fenced off if left unsupervised to avoid injury and mortality of ungulates.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
						• A buffer zone will be placed around the perimeter of blasting activities and surrounding forested habitat. Blasting will be prohibited if large mammals (i.e., moose and / or caribou) are observed within 500 m from the blasting location. Pre-blasting surveys will be developed in the Environmental Protection Plan and followed.
UNGULATE - 09	• Caribou and Moose	• **Blasting and Associated Fly Rock**—May result in injury or mortality to wildlife.	• Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Not applicable	• The mitigation measures established and refined using adaptive management during Project Construction should be maintained during Maintenance. • Implement the environmental monitoring plan during Maintenance, including policies and actions for avoiding and minimizing the risks of blasting and blasting materials to wildlife.
UNGULATE - 10	• Caribou and Moose	• **Chemical or Hazardous Material Spill**—(E.g., petroleum products, ammonium nitrate) on site or along access or haul roads can affect wildlife survival and reproduction.	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Prepare a Spill Prevention and Emergency Response Plan that describes specific measures that would be implemented if a spill occurred.	• Implement the Spill Prevention and Emergency Response Plan that describes specific measures if a spill occurs. • Adhere to federal and provincial regulations and guidelines regarding hazardous substance collection and storage, use and handling, and disposal and treatment, such as the federal *Transportation of Dangerous Goods Act*, provincial *Dangerous Goods Transportation Act*, and the *Environmental Protection Act.* Locate project infrastructure systems away from key habitats (i.e., critical habitat, biophysical attributes as defined in Federal Recovery Strategy, Significant Wildlife Habitat) as much as possible. • Mitigation measures described in the Surface Water, Groundwater Physiography, Terrain, and Soils, and Vegetation IDs will be implemented to minimize effects from chemical and hazardous material spills in the ungulate effects assessment Local Study Area during construction and operations. The transportation, storage, and handling of fuels will be in compliance with the *Technical Standards and Safety Act* (Government of Ontario, 2000) and federal *Transportation of Dangerous Goods Act* (Government of Canada, 1992).
UNGULATE - 10	• Caribou and Moose	• **Chemical or Hazardous Material Spill**—(E.g., petroleum products, ammonium nitrate) on site or along access or haul roads can affect wildlife survival and reproduction.	• Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Not applicable	• The mitigation measures established and refined using adaptive management during Project Construction should be maintained during Maintenance. • Meet the federal *Transportation of Dangerous Goods Act*, provincial *Dangerous Goods Transportation Act*, and the provincial *Environmental Protection Act* for the transport, storage, and handling of fuels required for Maintenance. • Commercial vehicles who are transporting dangerous goods on the Community Access Road should be adhering to the federal *Transportation of Dangerous Goods Act* and provincial *Dangerous Goods Transportation Act*.
UNGULATE - 11	• Caribou and Moose	• **Habitat Loss**—the direct removal or alteration of soil and vegetation that may change habitat availability,	• Construction	• Ministry of the Environment, Conservation and Parks	• Engage and consult with Indigenous communities and federal and provincial regulators to confirm the	• Retain function, quality and connectivity of compatible habitat features (e.g., vegetation, trees, wildlife trees, coarse woody debris) as much as possible, particularly in selective, environmentally sensitive areas, to the extent practical and where

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		use, and connectivity and influence ungulate abundance and distribution.		• Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	mitigations to be implemented during construction and operations. • A sensitive data license agreement will be established with the Ministry of the Environment, Conservation and Parks' Species at Risk Branch for the Project (in other words, owner / operator) to acquire boreal caribou protected habitat information, which will support monitoring and other proposed mitigation commitments during construction. • Follow best management practices and environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Fisheries and Oceans Canada, the Ministry of Environment, Conservation and Parks, and the Ministry of Natural Resources, during detail design. • Limit the Project footprint to the extent feasible. • Use existing access road where possible. • Locate the Project route in such a way that minimizes overlap with sensitive habitats to the extent feasible, including provincially identified Category 1 areas for caribou (nursery areas, winter use areas, travel corridors; Government of Ontario, 2013) and potential new Category 1 areas identified in this EA/IS, areas which contain biophysical habitat attributes for caribou (Environment and Climate Change Canada, 2020), and significant wildlife habitat for moose. • Limit to the extent feasible the construction of temporary (e.g., access road) and permanent structures in wetlands or within 30 m setback from a wetland. If construction cannot avoid wetlands and 30 m setback, Ministry of Natural Resources will be notified as soon as possible prior to work starting. Work may will not be conducted unless approval is obtained from the appropriate regulatory agencies. • Plan for construction of the Community Access Road to be conducted in phases (segment by segment) to limit the amount of disturbance at any particular time. • The Project construction schedule will avoid activities during the sensitive timing windows for caribou (i.e., May 1 to September 15 for nursery areas, December 1 to March 31 for winter use areas) within 10 km of known and potential new Category 1 areas, to the extent practical. When activity restrictions cannot be followed, the Ministry	safe to do so (e.g., using proper setbacks of key habitat features, avoid severe water fluctuations, avoid terrestrial islands, avoid mineral licks, avoid unburned areas within wildfire perimeters, avoid migratory pathways). • Limit clearing of riparian vegetation (i.e., within 30 m of waterbodies) to the extent practical and to the requirement of the access road and alignment clearing width only. • Known sensitive ecological features will be clearly marked (e.g., wetlands and significant wildlife habitat) with associated setbacks. Engage with applicable government agency (Ministry of the Environment, Conservation and Parks, Ministry of Natural Resources and Environment and Climate Change Canada) if sensitive ecological features are encountered or cannot be avoided. • Use construction practices which encourage the eventual natural recovery / growth of native species (e.g., winter exploration programs on frozen ground with no ripping or grubbing soil). • Maintain or improve ungulate habitat by using techniques that accelerate revegetation (e.g., minimize topsoil removal, preserve adequate substrate, leave surface vegetation root mat intact). • Under non-frozen conditions and where regulatory approvals allow, install mats (e.g., rig mats, swamp mats or access mats) to limit effects on waterbodies and wetlands, if warranted and surface conditions require. • A Vegetation Management Plan including measures to protect rare plants and rare vegetation communities will be implemented by the owner / operator. • Erosion control practices (e.g., contouring) will limit wind and water erosion on cover soil and overburden stockpiles (e.g., vegetation, erosion mats) as well as will encourage regrowth of vegetation. • Prevent starting wildfires from Project activities (e.g., have readily available fire extinguishers, firefighting equipment, water packs / pails, provide firefighting training to staff, keep equipment clean and in good condition, no smoking outside designated areas, prepare an Emergency Response Plan). • Use progressive restoration and adopt practices to facilitate conifer recovery (e.g., elevate mulching drums) on site once temporary construction areas are no longer needed. The time interval between commencement and completion of any work that disturbs earth surfaces will be a maximum of 20 calendar days. Commencement of such work will be considered to have occurred when the original stabilizing ground cover has been removed, including grubbing, or has been covered with fill material. Completion of such work will be considered to have occurred when the cover material (seed and mulch, seed and erosion control blanket, sod, rip-rap, etc.) has been applied. Where the timing of the operation results in a conflict with the application requirements of the specified cover, the owner / operator will determine appropriate interim measures that afford temporary protection until such a time as final cover can be applied. Additional information

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					of Environment, Conservation and Parks will be engaged to determine alternative approaches. • Where possible, schedule work activities in wet areas during frozen conditions. • Prepare a Cleanup and Reclamation Plan that describes restoration plan including seedling planting, if necessary, to improve restoration success on areas of temporary disturbance (e.g., temporary access roads, laydown areas, camps, and workspaces). Reclamation plans will be confirmed through engagement with Indigenous communities, the Ministry of Natural Resources and local foresters. • A Preliminary Biodiversity Offset Plan (Appendix AB) has been developed to have no net loss of caribou habitat, finalize in detail design. • A Vegetation Management Plan including measures to protect rare plants and rare vegetation communities will be developed by the owner / operator. In the event a rare plant species or a rare vegetation community are encountered unexpectedly, or cannot be avoided, the rare plant protection measures outlined in the Vegetation Management Plan will be implemented. • An Ungulates Management and Monitoring Plan will be developed as part of the Environmental Protection Plan. Recommendations for mitigations and monitoring approaches provided by First Nations during the comment period of the Draft Environmental Assessment / Impact Statement will be considered for inclusion in the Ungulates Management and Monitoring Plan. During construction, the following monitoring programs may be required: • Clearing, construction activities and decommissioning of temporary construction areas in and within 10 km of Category 1 nursery use areas will occur outside the sensitive timing window of May 1 to September 15, to the extent practical. Clearing and construction activities in and within 10 km of Category 1 winter use areas will occur outside the sensitive timing window of December 1 to March 31, to the extent practical. If activity restrictions cannot be followed for construction activities, Indigenous communities, in addition to the Ministry of Environment, Conservation and Parks, will be engaged to determine alternative approaches. This may include daily monitoring of caribou locations with collars and only commencing construction activities if collar data indicates that there are no	about the expected timeline for restoration activities is described in Section 9.4.7.4 of the Final Environmental Assessment / Impact Statement. • Avoid re-entry and disturbance of reclaimed temporary access areas through combined use of physical control measures (rollback, remove of creek crossings, recontouring to surrounding topography, revegetation / reforesting and / or barriers at junctions with active access). • Reclaim temporary access roads, construction camps, waterbody crossings and laydown areas at the end of construction. • Implement the Cleanup and Reclamation Plan including monitoring effectiveness of revegetation efforts post-construction. If required, adaptive management will be employed to modify or enhance any reclamation efforts. • Restore on site should consider maintaining or improving wildlife habitat. Consider planting native trees, preferably conifers, to accelerate revegetation of the access roads and other temporary disturbances (or progressive reclamation through project life cycle). • A Before-After Control-Impact study is proposed which begins during Construction and continues during operations would allow for a quantitative assessment of potential effects of each phase of the Project. Data from Construction monitoring will be compared to data collected prior to Construction (i.e., baseline data collected from caribou collars, remote cameras and winter aerial surveys [2020 to 2024]) and data from reference sites (i.e., sites not affected by Construction disturbance) to determine if predictions made in the Environmental Assessment are valid and to monitor changes in population trends and habitat use though time. • During construction and operations, the following Before-After Control-Impact monitoring programs are potential approaches that could be discussed and evaluated as options during engagement and consultation: • Deploying and maintaining Global Positioning System collars on adult female caribou, for comparison of caribou seasonal movement patterns, habitat use and mortality in the vicinity of the Project compared to historical Ministry of Natural Resources collar data and collar data collected during baseline studies (2021 to 2024). Monitoring the movements of female caribou in the vicinity of the Project will allow for identification of changes related to areas where caribou occur during sensitive / vulnerable periods as well as their seasonal movement patterns, including possible travel corridors, during construction and operations. Monitoring with collars also would include conducting mortality investigations of collared animals as they occur; this will provide information about changes in causes of mortality during Construction and operations. The number of collars and duration of years for monitoring during Construction and operations will be determined through engagement with Ministry of Environment, Conservation and Parks.

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					caribou within pre-defined “cautionary zones” (pre-defined spatial buffer areas). • Cautionary zones will be pre-defined spatial buffer areas based on the level of sensory disturbance expected for the activity. • A hierarchy of mitigation actions based on disturbance type, distance from caribou, and season will be established. • In addition to the intensive monitoring during sensitive seasons described above, ground-based or aerial pre-clearing surveys (“wildlife sweeps”) will be completed outside of the sensitive timing windows and within a biologically relevant distance of the Construction Disturbance Area under the direction of the Environmental Monitor, prior to any clearing or grubbing. The wildlife sweeps will entail surveying for sensitive wildlife features, including mammal dens, beaver lodges, amphibian and reptile habitats, and bat maternity roost habitat, and documenting the presence of large mammals. Trained staff will survey the area to be cleared or where blasting will take place by foot, all-terrain vehicle, snow machine or truck. An Indigenous Environmental Monitor will participate in pre-clearing surveys. Observations of wildlife and sign will be documented and reported to the owner / operator. Environmental Manager and the Environmental Manager will help to confirm all Species at Risk observations will be reported to the Natural Heritage Information Centre as per the Report Rare Species (Animals and Plants) site (Ministry of Natural Resources, 2014) and to Ministry of the Environment, Conservation, and Parks – Species at Risk Branch at SAROntario@ontario.ca. Details of the ground-based pre-clearing surveys (wildlife sweeps) will be described in the Environmental Protection Plan which will be prepared prior to the Project authorization process so as to inform federal and provincial authorizations, as necessary. • Indigenous Environmental Monitors will be on site during construction to confirm adherence to all mitigation and monitoring commitments for the Project. • The effectiveness of mitigation measures will be evaluated during construction, and mitigation measures will be modified or enhanced as necessary through adaptive management. • A reporting protocol and system will be developed to report Species at Risk observations, including resulting from collisions, during construction and	• Deploying and maintaining Global Positioning System collars on adult female moose, for comparison with seasonal movement patterns, habitat use and mortality data from moose collars deployed by Ministry of Natural Resources in the moose Wildlife Management Units pre-construction (anticipated deployment in 2025). Monitoring the movements of female moose in the vicinity of the Project will allow for identification of changes related to areas where moose occur during sensitive / vulnerable periods as well as their seasonal movement patterns during construction and operations. Monitoring with collars also would include conducting mortality investigations of collared animals as they occur; this will provide information about changes in causes of mortality during Construction and operations. The number of collars and duration of years for monitoring during Construction and operations will be determined through engagement with Ministry of Natural Resources. • Remote camera monitoring at selected reference sites (in other words, locations surveyed in the alternative Project route Local Study Area during baseline surveys from 2021 to 2023 and on undisturbed sites) and within the vicinity of the Project. Remote camera monitoring will provide information about the occurrence and distribution of large mammals in the ungulate Local Study Area and whether there are changes in ungulate presence, habitat use and predation risk with the addition of the Project. Remote cameras could be deployed for a continuous period of at least 2 years during construction and at least 2 years during operations; the need for surveys further into operations will be determined through engagement with the Ministry of Environment, Conservation and Parks. • More frequent aerial surveys for moose within the ungulate Local Study Area and the moose Wildlife Management Units in the moose Regional Study Area (01D, 17, 18A) in collaboration with the Ministry of Natural Resources. Aerial survey monitoring will provide information about moose population trends, occurrence and distribution in the ungulate Local Study Area and moose Regional Study Area and whether there are changes in moose population size and demographics with the addition of the Project. Aerial surveys that were conducted by Ministry of Natural Resources in WMUs 01D, 17, and 18A will be used to characterize moose populations at existing conditions and compare to during construction and operations. Aerial surveys could be conducted at least twice during construction and at a regular interval (such as every 3 years) during operations. The need for surveys further into operations will be determined through engagement with Ministry of Environment, Conservation and Parks. • Developing community-based monitoring program in consultation and collaboration with Indigenous communities aimed to monitor Indigenous harvest to identify potential changes to moose hunter harvest in response to increased human access during construction and operations. Monitoring Indigenous harvest through community-led programs will provide information on

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					operations, to the Ministry of Natural Resources Natural Heritage Information centre. The details of the incidental wildlife and wildlife-vehicle collision reporting system will be described in the Environmental Protection Plan.	Indigenous hunter harvest demand and success, and moose population trends. Information on Indigenous harvest from these community-led programs could be used to inform non-Indigenous hunting quotas set by the Ministry of Natural Resources as a method of collaboratively managing moose populations in the moose Regional Study Area. Action levels or triggers for implementing adaptive management measures would be determined through collaboration with Indigenous communities and the Ministry of Natural Resources. • A comprehensive Moose Access and Monitoring Plan will be developed in collaboration with Indigenous communities to identify high-risk moose collision zones to inform adaptive management (in other words, the implementation of signage and reduced speed limits) and for long-term monitoring of moose-vehicle collisions. The plan would be developed to protect the safety of people and moose. High-risk moose collision zones would be identified through community-based observations, collision reporting by Ontario Ministry of Transportation, and results from long-term monitoring of moose occurrence described above (in other words, Global Positioning System collars, remote cameras and aerial surveys). • Designing a long-term sensory disturbance monitoring program, in consultation and collaboration with Indigenous communities, aimed to detect changes in ungulate behaviour in response to noise during construction and operations. This program could fill knowledge gaps and act as a research component of the Preliminary Biodiversity Offset Plan (Appendix AB). • Monitoring will follow standardized / established methods. A monitoring schedule, description of performance indicators that will be used to evaluate the effectiveness of mitigation measures, and adaptative measures to be implemented if necessary to address issues or problems identified during construction monitoring will be detailed prior to construction. The details of the ungulate monitoring programs will be described in the Environmental Protection Plan.
UNGULATE - 11	• Caribou and Moose	• **Habitat Loss**—the direct removal or alteration of soil and vegetation that may change habitat availability, use, and connectivity and influence ungulate abundance and distribution.	• Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Not applicable	• Maintenance activities with high levels of disturbance will avoid the sensitive timing windows for caribou (i.e., May 1 to September 15 for nursery areas, December 1 to March 31 for winter use areas) in known and potential new Category 1 areas, to the extent practical. When activity restrictions cannot be followed, the Ministry of Environment, Conservation and Parks will be engaged to determine alternative approaches. • Complete maintenance work as quickly as possible to shorten the duration of disturbance. • Ongoing use of inactive areas will be prevented through combined use of physical control measures (rollback, remove of creek crossings, recontouring to surrounding topography, revegetation / reforesting and / or barriers at junctions with active access). • Avoid re-entry and disturbance of reclaimed temporary access areas through combined use of physical control measures

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						(rollback, remove of creek crossings, recontouring to surrounding topography, revegetation / reforesting and / or barriers at junctions with active access). • A Before-After Control-Impact study is proposed which begins during Construction and continues during operations would allow for a quantitative assessment of potential effects of each phase of the Project. Data from Construction monitoring will be compared to data collected prior to Construction (i.e., baseline data collected from caribou collars, remote cameras and winter aerial surveys [2020 to 2024]) and data from reference sites (i.e., sites not affected by Construction disturbance) to determine if predictions made in the Environmental Assessment are valid and to monitor changes in population trends and habitat use though time.
UNGULATE - 12	• Caribou and Moose	• **Habitat Alteration**—Alteration of final terrain and soil conditions, and / or plant species composition, could change the types of ecosystems that can be reclaimed on the landscape and adversely affect ungulate habitat availability and distribution, and survival and reproduction.	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• See mitigations for Habitat Loss • Concentrate activities spatially and temporally to minimize fragmentation and barriers to movement.	• See mitigations for habitat loss. • Minimize elevation and slope of soil piles and berms to allow ungulates to have clear line of sight to adjacent habitat. • Along the Project right-of-way and the access roads, maintain gaps in road berms and snowbanks to facilitate wildlife crossing at drainages, wildlife trails, strategic crossing points informed by movement data and Indigenous Knowledge, or connected habitat patches so that ungulate movements across roads are not blocked.
UNGULATE - 12	• Caribou and Moose	• **Habitat Alteration**—Alteration of final terrain and soil conditions, and / or plant species composition, could change the types of ecosystems that can be reclaimed on the landscape and adversely affect ungulate habitat availability and distribution, and survival and reproduction.	• Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Not applicable	• See mitigations for Habitat Loss.
UNGULATE - 13	• Caribou and Moose	• **Sensory Disturbance**—(E.g., lights, smells, noise, human activity) can alter ungulate habitat availability, use and connectivity (movement and behaviour), which can lead to changes in abundance and distribution and adversely affect survival and reproduction.	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Limit the Project footprint to the extent feasible. • Use existing access road where possible. • Locate the Project route in such a way that minimizes overlap with sensitive habitats to the extent feasible, including provincially identified Category 1 areas for caribou (nursery areas, winter use areas, travel corridors; Government of Ontario, 2013) and potential new Category 1 areas identified in this EA/IS, areas which contain biophysical habitat attributes for caribou (Environment and Climate Change Canada, 2020), and significant wildlife habitat for moose. • Construction of the Community Access Road will be conducted in phases (segment by segment) to	• Implement the Environmental Protection Plan. • Construction will be completed as quickly as possible to shorten the duration of disturbance. • Noise abatement, emission and pollution control equipment on machinery will be in place, properly maintained and in good working order. • Limit aerial operations when possible. When not feasible, a minimum ferry altitude of 400 m above ground level will be maintained during sensitive timing periods to reduce sensory disturbance on caribou. • Limit light disturbance from night-time operational activities by using directional lighting. Lighting required for Construction, including direction and timing to avoid effects on ungulates, will be

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					limit the amount of disturbance at any particular time. • The Project construction schedule will avoid activities during the sensitive timing windows for caribou (i.e., May 1 to September 15 for nursery areas, December 1 to March 31 for winter use areas) within 10 km of known and potential new Category 1 areas, to the extent practical. When activity restrictions cannot be followed, the Ministry of Environment, Conservation and Parks will be engaged to determine alternative approaches. • Prepare an Environmental Protection Plan will be that includes measures to limit noise disturbance from construction activities; this includes prohibiting use of engine retarder brakes, enforcing speed limits, reducing idling of vehicles, designing routes to minimize reversing (backup beeper), reducing traffic by locating camps near construction sites, and restricting construction traffic to designated areas and only construction personnel. • A Preliminary Biodiversity Offset Plan has been developed to have no net loss of caribou habitat.	controlled while meeting operational health and safety requirements. • Industry best practices will be used for blasting activities, including scheduling when in the vicinity of sensitive wildlife habitat areas. Forest buffers (30 m width) will be retained around quarries to reduce noise, where feasible. • Wildlife awareness training will be provided for road construction workers to reduce vehicle speeds and associated noise and dust emission levels. • Restricting construction traffic to designated areas. • Multi-passenger vehicles (e.g., buses) will be used to transport workers to site when practicable. • Prevent ongoing use of inactive areas through combined use of physical control measures (rollback, remove of creek crossings, recontouring to surrounding topography, revegetation / reforesting and / or barriers at junctions with active access). • A comprehensive list of mitigation measures to minimize effects from noise during Construction is provided in the Acoustics IDs.
UNGULATE - 13	• Caribou and Moose	• **Sensory Disturbance**—(E.g., lights, smells, noise, human activity) can alter ungulate habitat availability, use and connectivity (movement and behaviour), which can lead to changes in abundance and distribution and adversely affect survival and reproduction.	• Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Not applicable	• A comprehensive list of mitigation measures to minimize effects from noise during operations is provided in the Acoustic and Vibration Technical Support Document (Appendix P). • Complete Maintenance work as quickly as possible to shorten the duration of disturbance. • Posting and enforcement of speed limits to reduce vehicle speeds and associated noise and dust emission levels. • The Environmental Protection Plan will be implemented to minimize sensory disturbance by owner / operator during operations, including prohibiting use of engine retarder brakes, enforcing speed limits, and restricting maintenance traffic to designated areas. • Aerial operations will be limited when possible; when not feasible, minimum ferry altitude of 400 m above ground level will be maintained during sensitive timing periods to reduce sensory disturbance on caribou. • Lighting required for operations, including direction and timing to avoid effects on ungulates, will be controlled while meeting operational health and safety requirements. • Prevent ongoing use of inactive areas through combined use of physical control measures (rollback, remove of creek crossings, recontouring to surrounding topography, revegetation / reforesting and / or barriers at junctions with active access).

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UNGULATE - 14	• Caribou and Moose	• **Linear Barriers**—Roads and snowbanks on roads could decrease habitat connectivity and adversely affect ungulate distribution, which can lead to changes in abundance and distribution and adversely affect survival and reproduction.	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Limit the Project footprint to the extent feasible. • Use existing access road where possible. • Locate the Project route in such a way that minimizes overlap with sensitive habitats to the extent feasible, including provincially identified Category 1 areas for caribou (nursery areas, winter use areas, travel corridors; Government of Ontario, 2013) and potential new Category 1 areas identified in this EA/IS, areas which contain biophysical habitat attributes for caribou (Environment and Climate Change Canada, 2020), and significant wildlife habitat for moose. • Limit to the extent feasible the construction of temporary (e.g., access road) and permanent structures in wetlands or within 30 m setback from a wetland. If construction cannot avoid wetlands and 30 m setback, Ministry of Natural Resources will be notified as soon as possible prior to work starting. Work may will not be conducted unless approval is obtained from the appropriate regulatory agencies. • Construction of the Community Access Road will be conducted in phases (segment by segment) to concentrate activities spatially and temporally to minimize fragmentation and barriers to movement across the landscape. • The Project construction schedule will avoid activities during the sensitive timing windows for caribou (i.e., May 1 to September 15 for nursery areas, December 1 to March 31 for winter use areas) within 10 km of known and potential new Category 1 areas, to the extent practical. When activity restrictions cannot be followed, the Ministry of Environment, Conservation and Parks will be engaged to determine alternative approaches. • Prepare an Environmental Protection Plan that includes policies and actions anticipated to mitigate the barrier to movement by caribou. • Prepare a Cleanup and Reclamation Plan that describes restoration plan including seedling planting, if necessary, to improve restoration success on areas of temporary disturbance (e.g., temporary access roads, laydown areas, camps, and workspaces). Reclamation plans will be confirmed through engagement with Indigenous communities, the Ministry of Natural Resources and local foresters.	• Implement the Environmental Protection Plan. • Minimize elevation and slope of soil piles and berms to allow ungulates to have clear line of sight to adjacent habitat. • Along the Project right-of-way and the access roads, maintain gaps in road berms and snowbanks to facilitate wildlife crossing at drainages, wildlife trails, strategic crossing points informed by movement data and Indigenous Knowledge, or connected habitat patches so that ungulate movements across roads are not blocked. • Snowbanks will be limited as much as possible and to a height of less than 1.6 m. • Snow clearing along the access roads will incorporate road pull-outs at regular intervals to provide refuge for wildlife moving along the Community Access Road corridor. • Traffic speeds during construction will be posted. Speeds will be determined by temporary access road conditions and the discretion of the owner / operator. • Vehicular traffic will be confined to approved right-of-way, workspace and access roads or trails. • The time that road Construction materials are left on the ground will be minimized to limit physical barriers to movement. • Use progressive restoration on site once staging areas are no longer needed and prevent ongoing use of inactive areas through combined use of physical control measures (rollback, remove of creek crossings, recontouring to surrounding topography, revegetation / reforesting and / or barriers at junctions with active access). The time interval between commencement and completion of any work that disturbs earth surfaces will be a maximum of 20 calendar days. Commencement of such work will be considered to have occurred when the original stabilizing ground cover has been removed, including grubbing, or has been covered with fill material. Completion of such work will be considered to have occurred when the cover material (seed and mulch, seed and erosion control blanket, sod, rip-rap, etc.) has been applied. Where the timing of the operation results in a conflict with the application requirements of the specified cover, the owner / operator will determine appropriate interim measures that afford temporary protection until such a time as final cover can be applied.

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UNGULATE - 14	• Caribou and Moose	• **Linear Barriers**—Roads and snowbanks on roads could decrease habitat connectivity and adversely affect ungulate distribution, which can lead to changes in abundance and distribution and adversely affect survival and reproduction.	• Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Not applicable	• Along the Project right-of-way and the access roads, maintain gaps in road berms and snowbanks to facilitate wildlife crossing at drainages, wildlife trails, strategic crossing points informed by movement data and Indigenous Knowledge, or connected habitat patches so that ungulate movements across roads are not blocked. • Snowbanks will be limited as much as possible and to a height of less than 1.6 m. • Snow clearing along the road will incorporate road pull-outs at regular intervals to provide refuge for wildlife moving along the Community Access Road corridor. • Traffic speeds during operations will be posted and enforced. • The time that Maintenance materials are left on the ground will be minimized to limit physical barriers to movement.
UNGULATE - 15	• Caribou and Moose	• **Increased Predator Access**—Increased access for predators (e.g., wolf and black bear) and prey may increase predation risk and decrease survival and reproduction for moose and caribou.	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Follow best management practices and environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Fisheries and Oceans Canada, the Ministry of Environment, Conservation and Parks, and the Ministry of Natural Resources, during detail design. • Limit the Project footprint to the extent feasible. • Use existing access road where possible. • Locate the Project route in such a way that minimizes overlap with sensitive habitats to the extent feasible, including provincially identified Category 1 areas for caribou (nursery areas, winter use areas, travel corridors; Government of Ontario, 2013) and potential new Category 1 areas identified in this EA/IS, areas which contain biophysical habitat attributes for caribou (Environment and Climate Change Canada, 2020), and significant wildlife habitat for moose. • Design temporary linear features to decrease predator efficiency (e.g., retain vegetation under 2 m, minimize width of linear features, switch backs and bends in temporary road construction). • Prepare an Environmental Protection Plan that includes measures to control, and / or restrict predator use of access roads during Construction. Measures will include felling of timber across temporary access roads after reclaimed, and removal of temporary watercourse crossings.	• Implement the Environmental Protection Plan. • Restrict wildlife access to waste (e.g., collect domestic and industrial waste and store in temporary containers until transported offsite, empty chemical toilets regularly, prohibit littering, prohibit feeding and harassment of wildlife). • Construct temporary linear features to decrease predator efficiency (e.g., retain vegetation under 2 m, minimize width of linear features, switch backs and bends in temporary road construction), and reduce predator mobility (e.g., not removing snow unless necessary). • During Construction, the ongoing use of inactive areas by predators will be minimized through physical control measures such as rollback, removal of creek crossings, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access. • Progressive reclamation and revegetation would be implemented as non-permanent features would be decommissioned. • To minimize ongoing attraction of predators to the Project area, road kill will be cleaned up following best management practices outlined by Ontario's Ministry of Transportation and wildlife access to waste will be restricted.
UNGULATE - 15	• Caribou and Moose	• **Increased Predator Access**—Increased access for predators (e.g., wolf and black bear) and prey may increase predation risk and	• Operations	• Ministry of the Environment, Conservation and Parks	• Not applicable	• Restrict wildlife access to waste (e.g., collect domestic and industrial waste and store in temporary containers until transported offsite, empty chemical toilets regularly, prohibit littering, prohibit feeding and harassment of wildlife).

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		decrease survival and reproduction for moose and caribou.		• Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks		• During operations, the ongoing use of inactive areas by predators will be minimized through physical control measures such as rollback, removal of creek crossings, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access. • To minimize ongoing attraction of predators to the Project area, road kill will be cleaned up following best management practices outlined by Ontario's Ministry of Transportation and wildlife access to waste will be restricted.
UNGULATE - 16	• Caribou and Moose	• **Increase in Public Access**—Could affect ungulate survival and reproduction through legal and illegal hunting.	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Ontario Parks	• Locate the Project route in such a way that minimizes overlap with sensitive habitats to the extent feasible, including provincially identified Category 1 areas for caribou (nursery areas, winter use areas, travel corridors; Government of Ontario, 2013) and potential new Category 1 areas identified in this EA/IS, areas which contain biophysical habitat attributes for caribou (Environment and Climate Change Canada, 2020), and significant wildlife habitat for moose. • Prepare an Environmental Protection Plan that includes measures to control, and / or restrict public use of access roads during Construction. Measures may include gates / manned gates, signage, reduced road standard, reduced speed limits, felling of timber across temporary access roads after reclaimed, and removal of temporary watercourse crossings. Marten Falls First Nation continues to engage in discussions with the Province regarding the ownership and future operations and maintenance of the Community Access Road. Access and ownership, including gating security / ID system, are not within the scope of this Project's Environmental Assessment / Impact Assessment; however, it is a matter that will require further dialogue between the communities and the Province. • The Environmental Protection Plan will also outline measures to minimize wildlife-human interactions during Construction, including an education program that details to staff, owner / operator, and visitors how to take all reasonable precautions to avoid wildlife conflicts, mandatory encounter and incident reporting, and signage identifying dangers of discharging firearms near industrial activity.	• Implement the Environmental Protection Plan. • Posting and enforcement of restricted access and speed signage will follow the *Construction Specification for Temporary Traffic Control Devices* (Ministry of Transportation, 2025c). • During Construction, employees will be prohibited from personal use of motorized recreational vehicles and will be prohibited from hunting or carrying firearms. • During Construction, the ongoing use of inactive areas by the public will be minimized through physical control measures such as rollback, removal of creek crossings, felling of timber across temporary access roads, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access. • Progressive restoration and revegetation would be implemented as non-permanent features would be decommissioned. The time interval between commencement and completion of any work that disturbs earth surfaces will be a maximum of 20 calendar days. Commencement of such work will be considered to have occurred when the original stabilizing ground cover has been removed, including grubbing, or has been covered with fill material. Completion of such work will be considered to have occurred when the cover material (seed and mulch, seed and erosion control blanket, sod, rip-rap, etc.) has been applied. Where the timing of the operation results in a conflict with the application requirements of the specified cover, the owner / operator will determine appropriate interim measures that afford temporary protection until such a time as final cover can be applied.
UNGULATE - 16	• Caribou and Moose	• **Increase in Public Access**—Could affect ungulate survival and reproduction through legal and illegal hunting.	• Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources	• Not applicable	• Access roads for aggregate areas and other infrastructure required for maintenance activities will be gated to limit public access. • Employees will be prohibited from hunting or carrying firearms while conducting maintenance activities. • The ongoing use of inactive areas by the public will be minimized through physical control measures such as rollback, removal of

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				• Environment and Climate Change Canada • Ontario Parks		creek crossings, felling of timber across temporary access roads, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access.
UNGULATE - 17	• Caribou and Moose	• **Collisions with Vehicles and Equipment**—Vehicle or heavy equipment use may cause injury or mortality to individual caribou and moose.	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Ministry of Transportation • Ontario Parks	• Prepare an Environmental Protection Plan that includes measures to minimize collisions between wildlife and vehicles during Construction. Measures will include an education program that details to staff, owner / operator, and visitors how to take all reasonable precautions to avoid wildlife collisions. In addition, the Environmental Protection Plan will include measures such as: • Giving wildlife the right-of-way. • Signage in areas where wildlife are regularly observed. • Radio communication between staff of wildlife presence in construction area. • Coordinating worker transportation to site to reduce traffic volumes, where practicable. • Confining vehicle traffic to approved right-of-way, workspace and access roads. • Leaving gaps in road berms and snowbanks to allow for movement across the construction area. • Restrictions on the use of motorized recreational vehicles by employees and owner / operator while working, including prohibition of personal snowmobiles, all-terrain vehicles and other motorized recreational vehicles, except for authorized purposes. • Mandatory encounter and incident reporting. • Reduced and enforced speed limits.	• Implement the Environmental Protection Plan. • Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks and Ontario Ministry of Natural Resources, will be followed. • During Construction, heavy trucks will be travelling at reduced speeds and will be adjusted according to conditions (e.g., wildlife in the area, weather conditions). • Along the Project right-of-way and the access roads, gaps will be maintained in road berms and snowbanks to facilitate wildlife crossing at drainages, wildlife trails, strategic crossing points informed by movement data and Indigenous Knowledge, or connected habitat patches so that ungulate movements across roads are not blocked. • Snow clearing along the access roads would incorporate road pull-outs at regular intervals to provide refuge for wildlife moving along the Community Access Road corridor. • During Construction, the ongoing use of inactive areas by the public will be minimized through physical control measures such as rollback, removal of creek crossings, felling of timber across temporary access roads, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access. Progressive reinstatement and revegetation would be implemented as non-permanent features would be decommissioned.
UNGULATE - 17	• Caribou and Moose	• **Collisions with Vehicles and Equipment**—Vehicle or heavy equipment use may cause injury or mortality to individual caribou and moose.	• Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Ministry of Transportation • Ontario Parks	• Not applicable	• During operations, mitigation measures applicable to non-commercial traffic will include signage in areas where wildlife are regularly observed and reduced speed limits in Category 1 caribou habitat areas. Additional mitigation for commercial traffic will include reduced and enforced speed limits on the entire road, communication of wildlife presence between drivers, and mandatory reporting of wildlife incidents. • Gaps in snowbanks will be plowed at least every 1 km apart and maintained by road maintenance crews throughout the winter season. • Access roads for aggregate areas and other infrastructure required for maintenance activities will be gated to limit public access. • During operations, the ongoing use of inactive areas by the public will be minimized through physical control measures such as rollback, removal of creek crossings, felling of timber across temporary access roads, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access. Progressive reinstatement and revegetation would be

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						implemented as non-permanent features would be decommissioned.
Physiography, Terrain, and Soils						
PTS-01	• Physiography, Terrain, and Soils	• Changes to terrain quantity / distribution from Project activities.	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources	• Limit the Project footprint (Construction Disturbance Area) to the extent practicable; and • Develop a Project-specific Soil Management Plan (e.g., soil stripping and handling recommendations, erosion and sediment control [based on the Ontario Ministry of Transportation's Erosion and Sediment Control Guide], reclamation procedures, best management practices and guidelines / policies), which could include the following: - Slope stability monitoring during land clearing, site preparation, and construction of facilities, especially road components adjacent to rivers, creeks, and streams; - Monitoring for admixing of soil, compaction, and erosion during clearing, contouring, and excavation activities; - Monitoring of transportation of soil and stockpiling activities for signs of erosion; - Monitoring of erosion and sedimentation control measures to avoid and minimize sediment mobilization from disturbed areas to drainages, wetlands, or watercourses; - Monitoring of soil stockpiles and the Construction Disturbance Area for invasive species such as weeds. If invasive species are identified within the Construction Disturbance Area, a response plan will be prepared; - Monitoring and managing reclamation concerns pertaining to soil erosion, revegetation, and slope stability; and - Monitoring of aggregate rehabilitation to fully assess the effectiveness of rehabilitation and detect any unintended effects.	• Minimize areas of vegetation clearing and soil disturbance and optimize the use of existing cleared areas for Project activity (i.e., site clearing will be kept to a minimum within the Community Access Road right-of-way). • Minimize the stripping and grading of terrain between the height of land (drainage divide) and the watercourse, or within 100 m of a watercourse crossing, whichever is less, and will be limited to that required to address engineering issues and safety concerns, such as the removal of hazards. If stripping or grading occurs within such areas, the site will be stabilized. • Regrade areas with erosional gullies to conform to the local landform to maintain drainage patterns during decommissioning of temporary infrastructure. • Strip overburden from bedrock quarry areas before drilling, blasting, or excavating and manage in accordance with the *Onsite and Excess Soil Management Regulation* under the Ontario *Environmental Protection Act*. • All pits and quarries will be rehabilitated during their operational lifetime and once extraction is finished as per the Ontario Ministry of Natural Resources *Aggregate Resources Act*. • Inspections and maintenance of roadside ditches and culverts will be conducted as appropriate to limit the risk of road wash-out or sediment release to the environment. The frequency of these inspections will likely vary depending on weather events, amount of traffic, and season. • A program will be conducted to verify that erosion and sediment control measures have been successful (for example, bank restoration and revegetation) and that the stability of each waterbody crossing is maintained (in other words, the channel has not washed out). The post-construction monitoring will occur within one full growing season after the completion of construction, but timing may be extended if needed. • The effectiveness of mitigation measures will be evaluated during construction and operations and will be modified or enhanced as necessary through adaptive management.
PTS-02	• Physiography, Terrain, and Soils	• Changes to terrain quantity and distribution (esker landforms) from Project activities.	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources	• Confirm suitable aggregate material in ridged landforms prior to extraction. • The use of eskers or similar geological features for aggregate resources will be minimized or avoided by using bedrock quarries or other sand and gravel resources whenever possible. • Confirm suitable aggregate material in ridged landforms prior to extraction.	• All pits and quarries will be rehabilitated during their operational lifetime and once extraction is finished as per the Ontario Ministry of Natural Resources *Aggregate Resources Act*.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
PTS-03	• Physiography, Terrain, and Soils	• Changes to terrain quantity and distribution (slope stability) from Project activities.	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources	• Avoid or minimize the amount of area for construction and subsequent operation facilities that are considered to have terrain that is either unstable or potentially unstable and design slopes for long-term stability; and • The potential effect of Class IV and V terrain to infrastructure planning within the Construction Disturbance Area will be further assessed as part of the detailed design.	• Have construction activities occur under frozen or dry conditions as much as possible; • Avoid construction on highly saturated soil where practicable or use suitable ground equipment to avoid potentially increasing slope instability; • Regrade areas with erosional gullies to conform to the local landform to maintain drainage patterns; • Minimize any exposed mineral soil between the height of land (drainage divide) and the watercourse, or within 100 m of a watercourse crossing, whichever is less, and will be limited to that required to address engineering issues and safety concerns, such as the removal of hazards. If stripping or grading occurs within such areas, the site will be left at a stable angle; • Use low road grades and proper drainage to reduce potential terrain instability, where feasible; and • Implement progressive reclamation and revegetation of disturbed areas no longer required for construction.
PTS-04	• Physiography, Terrain, and Soils	• Changes to soil quantity and distribution from Project activities.	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources	• Limit the Project footprint (Construction Disturbance Area) to the extent practicable. • Develop a Project-specific Soil Management Plan [e.g., soil stripping and handling recommendations, erosion and sediment control (based on the Ontario Ministry of Transportation's Erosion and Sediment Control Guide), reclamation procedures, best management practices and guidelines / policies]. • Select erosion and sediment control products that correspond with the nature and duration of the Project as recommended in the Soil Management Plan. • Control potential erosion by utilizing an effective road design (including use of engineered culverts and bridges). • To the extent practicable, avoid work in sensitive areas (i.e., erosive soils, wetland features, and fish habitats) during periods that may result in high flow volumes and / or increased erosion and sedimentation (e.g., spring freshet). • Use low road grades and proper drainage to reduce soil erosion, where feasible; • When practicable, consider pre-fabrication (e.g., parts of structures) at an approved offsite location to minimize onsite construction effects; • Avoid placing soil stockpiles near waterbodies or drainage features (i.e., a minimum distance of 100 m from watercourses). • Manage soil in accordance with the Best Management Practices for Aggregate Pit and	• Minimize areas of vegetation clearing and soil disturbance and optimize the use of cleared area for Project activity (i.e., site clearing will be kept to a minimum within the Community Access Road right-of-way); • Regularly inspect and maintain erosion and sediment control structures (e.g., sediment fences, rip-rap or other sediment control structures) during all Project phases and modify measures as necessary. If control measures are not functioning properly, no further work will occur until the problem is resolved; • Limit duration of soil exposure; phase activities whenever possible, and restore disturbed areas as soon as possible (i.e., implement appropriate erosion and sediment control, and progressive reclamation and revegetation of disturbed areas no longer required); • Selectively cut vegetation and restrict clearing and grubbing within areas with steep slopes or soils prone to risk of erosion; • Do not include mineral soil in the debris piles during clearing; • Have construction activities occur under frozen or dry conditions as much as possible; • Use clearing equipment appropriate to the nature of work being conducted that minimizes surface disturbance, soil compaction, and topsoil loss (e.g., equipment with low ground pressure tracks or tires, blade shoes, and brushes), where feasible. For example, avoid using large machinery when hand tools or smaller scale machinery could be used; • Regrade areas with vehicle ruts and erosion gullies to conform to the local landform to maintain drainage patterns; • Minimize stripping and grading of terrain between the height of land (drainage divide) and the watercourse, or within 100 m of a watercourse crossing, whichever is less, and will be limited to that required to address engineering issues and safety concerns, such

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
					Quarry Rehabilitation in Ontario (Madeh et al., 2021). • Manage any excess construction soil in accordance with the Onsite and Excess Soil Management Regulation under the Ontario *Environmental Protection Act.* • Develop a geochemical testing and monitoring program to assess the potential for acid rock drainage from any soils, or bedrock, which will be exposed during aggregate extraction. • Develop a Spill Prevention and Emergency Response Plan. • Develop a Blasting and Communication Management Plan. • Work with the Ministry of Transportation, and the Northern Road Link and Webequie Supply Road Project Teams to develop a coordinated approach to permafrost assessment. • Develop and follow recommendations outlined in a Permafrost Management Plan.	as the removal of hazards. If stripping or grading occurs within such areas, the site will be left at a stable angle; • Install and regularly maintain mitigation measures prior to the commencement of any site clearing, grubbing, excavation, filling, or grading works, prior to and after runoff events; • Where soils are prone to wind erosion, apply tackifier, cover, and seed, apply water or pack the topsoil stockpiles and windrows with approved equipment, especially during periods of high erosion potential (i.e., summer and fall); • Minimize steepness and length of slopes of disturbed areas and stockpiled soils.
PTS-05	• Physiography, Terrain, and Soils	• Changes to soil quality (compaction and admixing) from Project activities.	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources	• Limit the Project footprint (Construction Disturbance Area) to the extent practicable; and • Develop and ia Project-specific Soil Management Plan (e.g., soil stripping and handling recommendations, erosion and sediment control [based on the Ontario Ministry of Transportation's Erosion and Sediment Control Guide], reclamation procedures, best management practices and guidelines / policies).	• Minimize areas of vegetation clearing and soil disturbance and optimize the use of cleared area for Project activity (i.e., site clearing will be kept to a minimum within the Community Access Road right-of-way); • Use clearing equipment appropriate to the nature of work being conducted that minimizes surface disturbance, soil compaction, and topsoil loss (e.g., equipment with low ground pressure tracks or tires, blade shoes, and brushes), where feasible. For example, avoid using large machinery when hand tools or smaller scale machinery could be used; • Have construction activities occur under frozen or dry conditions as much as possible; • Use low pressure or rubber tracked vehicles for the early phase of the Community Access Road construction season and only higher-pressure equipment when the ground surface is strong enough to prevent compaction and rutting; • Avoid construction activities on highly saturated soil (primarily during or immediately after rain events or during freshet) where practicable or use suitable ground equipment to prevent unnecessary soil damage through rutting, for example. Crews should be prepared to stop work in these conditions; • Regrade areas with vehicle ruts and erosion gullies to conform to the local landform to maintain drainage patterns; and • De-compact subsoils, temporary access trails and soils damaged during wet weather.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
PTS-06	• Physiography, Terrain, and Soils	• Changes to soil quality from contamination due to potential leaks or spills of deleterious or hazardous substances from Project activities.	• Construction • Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources	• Develop and ia Spill Prevention and Emergency Response Plan, in the event of a spill; • Provide and make sure holding bats are readily available, so there is less chance of spillage; • Provide adequate lighting at fuelling stations and monitoring so that people clean up after any spills; and • Provide various pit stops along the Community Access Road where drivers can check their tanks and valves.	• Adhere to Standard Operating Procedures for fuel handling; • Construction machinery will arrive on site in a clean condition, free from leaks; • Construction crews will always keep a spill response kit on site during the work; • Contain and clean up spills immediately in accordance with provincial regulatory requirements and the Spill Prevention and Emergency Response Plan; • Transport fuel and hazardous materials in approved containers in licensed vehicles; • Require construction crews and drivers of vehicles using the Community Access Road system to report spills to the Ontario Spills Action Centre at 1-800-268-6060; and • Provide barriers along the sides of bridges to prevent other chemicals from spilling into waterways beneath them.
PTS-07	• Physiography, Terrain, and Soils	• Changes to soil quality from the transport and deposition of air contaminant emissions (e.g., potential acid inputs) and particulate matter (dust) from Project activities.	• Construction • Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources	• Minimize areas of vegetation clearing and soil disturbance and optimize the use of cleared areas for Project activities (i.e., site clearing and maintenance activities will be kept to a minimum within the Community Access Road right-of-way); while maintaining safe traffic and pedestrian flows, and follow best practices for design speeds and expected vehicle traffic Optimize access roads to reduce fuel consumption and emissions from equipment.	• Mitigation measures that will be implemented during construction and operations to reduce changes to soil from emissions and deposition include those listed in the *Air Quality and Greenhouse Gas Technical Support Document* (Appendix S).

Table 3: People Commitments

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
Aboriginal and / or Treaty Rights and Interests						
• The potential and cumulative impacts summary and recommendations for the Aboriginal and / or Treaty Rights and Interests Valued Components are provided in the confidential community-specific Aboriginal and / or Treaty Rights and Interests: Impact Assessment Reports. Each community received a copy of their Draft Impact Assessment Report to review and provide feedback prior to finalizing their Aboriginal and / or Treaty Rights and Interests: Impact Assessment Report. To support a comprehensive regulatory review, these community-specific reports will be shared with the Regulator. They form part of the evidence base for determining the assessment outcome. Due to confidentiality and / or the sensitive nature of the information, detailed community reports are not being shared publicly.					
Acoustic and Vibration Environment						
ACOUSTIC-01	• Noise	• Increase in noise level during Construction.	• Construction	• Health Canada	• Design access roads to minimize reversing, which is expected to minimize use of backup beepers, where possible. • Engage with Indigenous communities and relevant stakeholders to coordinate the planned construction schedule before the start of construction and prior to specific noisy activities to minimize overlap with the timing of traditional land use activities (e.g., fall and spring hunting seasons).	• Conduct construction activities during the daytime period (i.e., 7 a.m. to 7 p.m.). Night-time work is not anticipated. In the event construction will occur beyond the daytime period, applicable mitigation measures will be reviewed and implemented as required. • Check that equipment and machinery used on site is maintained in good working conditions through regular maintenance and inspection. • Locate and operate construction equipment as far as possible from points of reception. • Where reasonable and practicable, turn off vehicles and equipment when idle, unless weather and / or safety conditions dictate the need for them to remain turned on and in a safe operating condition. • Investigate noise concerns as they arise through a complaint resolution mechanism developed by the owner / operator whereby persons can contact the Project team if there are perceived noise issues. • Operate vehicles and equipment to minimize impulsive noise, where possible.
ACOUSTIC-02	• Noise	• Increase in noise level during operations and Maintenance.	• Operations	• Ministry of the Environment, Conservation and Parks • Health Canada	• Obtain a licence and / or permit for pits and quarries continuing to operate during operations, if licence and / or permit is required, which includes the completion of a noise assessment	• Operate pits and quarries in accordance with *NPC-300* and applicable permitting requirements. • Conduct maintenance activities during the daytime period (i.e., 7 a.m. to 7 p.m.). • Check that equipment and machinery used for site maintenance is maintained in good working conditions through regular maintenance and inspection. • Where reasonable and practicable, turn off maintenance equipment when idle, unless weather and / or safety conditions dictate the need for them to remain turned on and in a safe operating condition. • Operate maintenance equipment to minimize impulsive noise, where possible.
ACOUSTIC-03	• Vibration	• Increase in vibration level during Construction.	• Construction	• Ministry of the Environment, Conservation and Parks	• Develop a Construction Vibration Workplan prior to the start of construction describing the construction schedule, list of construction equipment, list of point of reception locations (i.e., traditional land use, residential, heritage	• Investigate vibration concerns as they arise through a complaint resolution mechanism whereby persons can contact the Project team if there are perceived vibration issues.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
				• Ministry of Natural Resources • Health Canada	structures and utilities), applicable guidance documents including criteria and control measures. • Consider the use of frequency-dependent vibration limits as more detailed information regarding the construction activities is known.	• Construction activities should be limited to the daytime period (i.e., 7 a.m. to 7 p.m.). Night-time work is not anticipated. In the event construction will occur beyond the daytime period, applicable mitigation measures will be reviewed and implemented as required. • Locate and operate construction equipment as far as possible from points of reception. • Avoid operating equipment that is expected to generate significant vibration at the same time. Operating them separately may reduce overall vibration levels. • Construction blasting will be carried out in compliance with the *Ontario Provincial Standard Specification 120* (Ministry of Transportation, 2025b) and *NPC-119* (Ministry of the Environment, 1978). The *Ontario Provincial Standard Specification 120* details items such as vibration limits, protective measures, pre-blast surveys and notification to nearby owners and tenants. All blasts, which might impact local structures or disrupt humans, will be monitored for ground and air vibrations. • Blasting at temporary or existing quarries will be carried out to comply with the conditions provided in the licence or aggregate permit, if a licence or aggregate permit exists or is required. • Blasting delays and blast mats will be used, as appropriate, to control vibration and fly rock as required.
ACOUSTIC-04	• Vibration	• Increase in vibration level during operations.	• Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Mitigation noted above	• Blasting will be carried out in compliance with *NPC-119*. • Quarry blasting will be carried out to comply with the conditions provided in the licence or aggregate permit, if a licence or aggregate permit exists or is required. • Blasting delays and blast mats will be used, as appropriate, to control vibration and fly rock as required.
Cultural Heritage						
CH-01	• Mid-Albany Cultural Heritage Landscape – Harvest Areas	• The Construction Disturbance Area of the Preferred Route is anticipated to directly overlap all 9 General Harvest Areas in addition to 14 specifically plotted Harvest Areas. • Construction-related activities and / or the long-term use of the roadway may result in displacement of traplines and the fragmentation and / or degradation of terrestrial habitat. This would negatively affect the distribution of furbearing animals, birds, and ungulates, thus affecting the viability of traplines and hunting areas.	• Construction	• Ministry of Citizenship and Multiculturalism • Ministry of the Environment, Conservation and Parks	• Where possible, avoid direct impact to potential heritage attributes of the cultural heritage landscape during the design and implementation of the Project. Refinements of the Preferred Route during the design, and land-use within the 100 m Construction Disturbance Area during construction should be planned to avoid impacting known Harvest Areas, Habitation Areas, Cultural, Spiritual, and Sacred Areas, Travel Routes, and Provincial Parks. If avoidance of potential heritage attributes is not feasible, then further assessment of the impacts and mitigation is required.	• Not applicable

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
		• Construction-related activities and / or the long-term use of the roadway may result in the blockage or channelization of water courses, changes to banks or riverbeds, and increased sedimentation as a result of excavation and / or dust. This would negatively affect the quality, connectivity, and quantity of aquatic habitat and the viability of fishing areas. • Construction-related activities and the long-term use of the roadway may impact aquatic and terrestrial habitat beyond the immediate Construction Disturbance Area of the Preferred Route. There is considerable potential for indirect impacts to habitat, within and beyond the Local Study Area that will negatively affect the availability of furbearing animals, ungulates, and birds and negatively affecting hunting, trapping, and fishing areas that are within the Local Study Area, but not directly overlapped by the Construction Disturbance Area of the Preferred Route. • The construction of the roadway will provide new access to the region that may indirectly adversely affect Harvest Areas through habitat changes and / or greater land use by non-local people.			• A Cultural Heritage Evaluation Report will be completed by a Qualified Person(s) to determine the Cultural Heritage Value or Interest of the potential cultural heritage landscape. • If the Project continues to impact the area and it is determined that the potential cultural heritage landscape meets Ontario Regulation 9/06 or Ontario Regulation 10/06, then further assessment of impacts and mitigation is required by completing a Heritage Impact Assessment.	
CH-02	• Mid-Albany Cultural Heritage Landscape – Habitation Areas	• The Construction Disturbance Area of the Preferred Route is anticipated to directly overlap 5 Habitation Areas in addition to the Marten Falls First Nation Reserve. • Potential direct impacts may include the demolition or removal of campground areas and / or temporary or permanent changes in land access at or around Habitation Areas. • Indirect impacts beyond the Construction Disturbance Area of the Preferred Route may include temporary or permanent changes in access to Habitation Areas, including either inhibiting access or opening access to non-local people.	• Construction	• Ministry of Citizenship and Multiculturalism • Ministry of the Environment, Conservation and Parks	• Where possible, avoid direct impact to potential heritage attributes of the cultural heritage landscape during the design and implementation of the Project. Refinements of the Preferred Route during the design, and land-use within the 100 m Construction Disturbance Area during construction should be planned to avoid impacting known Harvest Areas, Habitation Areas, Cultural, Spiritual, and Sacred Areas, Travel Routes, and Provincial Parks. If avoidance of potential heritage attributes is not feasible, then further assessment of the impacts and mitigation is required. • A Cultural Heritage Evaluation Report will be completed by a Qualified Person(s) to determine the Cultural Heritage Value or Interest of the potential cultural heritage landscape.	• Not applicable

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
					• If the Project continues to impact the area and it is determined that the potential cultural heritage landscape meets Ontario Regulation 9/06 or Ontario Regulation 10/06, then further assessment of impacts and mitigation is required by completing a Heritage Impact Assessment.	
CH-03	• Mid-Albany Cultural Heritage Landscape – Cultural, Spiritual, and Sacred Areas	• The Construction Disturbance Area of the Preferred Route is anticipated to directly overlap 6 Cultural, Spiritual, and Sacred Areas. • Potential direct impacts may include the demolition or removal of cultural sites, and temporary or permanent changes in access to culturally significant areas, either impeding local access or opening greater access to non-local people. • Indirect impacts beyond the Construction Disturbance Area of the Preferred Route may include temporary or permanent changes to the surrounding landscape that alter the context of culturally important areas.	• Construction	• Ministry of Citizenship and Multiculturalism • Ministry of the Environment, Conservation and Parks	• Where possible, avoid direct impact to potential heritage attributes of the cultural heritage landscape during the design and implementation of the Project. Refinements of the Preferred Route during the design, and land-use within the 100 m Construction Disturbance Area during construction should be planned to avoid impacting known Harvest Areas, Habitation Areas, Cultural, Spiritual, and Sacred Areas, Travel Routes, and Provincial Parks. If avoidance of potential heritage attributes is not feasible, then further assessment of the impacts and mitigation is required. • A Cultural Heritage Evaluation Report will be completed by a Qualified Person(s) to determine the Cultural Heritage Value or Interest of the potential cultural heritage landscape. • If the Project continues to impact the area and it is determined that the potential cultural heritage landscape meets Ontario Regulation 9/06 or Ontario Regulation 10/06, then further assessment of impacts and mitigation is required by completing a Heritage Impact Assessment.	• Not applicable
CH-04	• Mid-Albany Cultural Heritage Landscape – Travel Routes	• The Construction Disturbance Area of the Preferred Route is anticipated to intersect 27 Travel Routes including 23 land and 4 water routes. • Potential direct impacts to land routes may include the destruction of trail segments, the temporary or permanent obstruction of trails, and long-term changes in rights of way and / or trail access. • Potential direct impacts to water routes may include new transportation infrastructure such as bridges, culverts, and embankments that change the configuration of riverbanks and partially or fully obstruct waterway navigability	• Construction	• Ministry of Citizenship and Multiculturalism • Ministry of the Environment, Conservation and Parks	• Where possible, avoid direct impact to potential heritage attributes of the cultural heritage landscape during the design and implementation of the Project. Refinements of the Preferred Route during the design, and land-use within the 100 m Construction Disturbance Area during construction should be planned to avoid impacting known Harvest Areas, Habitation Areas, Cultural, Spiritual, and Sacred Areas, Travel Routes, and Provincial Parks. If avoidance of potential heritage attributes is not feasible, then further assessment of the impacts and mitigation is required. • A Cultural Heritage Evaluation Report will be completed by a Qualified Person(s) to	• Not applicable

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
		and / or portage sites on a temporary or permanent basis. • Indirect impacts to land routes may include changes in access to trails, either impeding local access or opening greater access to non-local people. • Indirect impacts to water routes may include temporary or permanent changes to prevailing currents, and / or long-term changes in patterns of debris deposition and sedimentation, thus altering the navigability of waterways.			determine the Cultural Heritage Value or Interest of the potential cultural heritage landscape. • If the Project continues to impact the area and it is determined that the potential cultural heritage landscape meets Ontario Regulation 9/06 or Ontario Regulation 10/06, then further assessment of impacts and mitigation is required by completing a Heritage Impact Assessment.	
CH-05	• Mid-Albany Cultural Heritage Landscape – Provincial Parks	• The Construction Disturbance Area of the Preferred Route is anticipated to transect the Albany River Provincial Park. • The Albany River Provincial Park is noted for its varied topography, remoteness, and water routes. The Project may result in direct impacts including, but not limited to, changes to the local topography including the destruction, removal, or alteration of landforms and / or grades, and the addition of a bridge over the Albany River, affecting the scenic quality and / or the navigability of the waterway. • The Construction Disturbance Area of the Preferred Route is anticipated to pass within approximately 1 km of the Ogoki River Provincial Park. • The Ogoki River Provincial Park is noted for its natural features, water routes, recreational opportunities, remoteness, and scenic qualities. Indirect impacts may include alterations to the landscape within and around the parks, thus altering the scenic context. • Additionally, the Project may result in temporary or permanent changes in access to both parks, opening both to greater use by non-local people.	• Construction	• Ministry of Citizenship and Multiculturalism • Ministry of the Environment, Conservation and Parks	• Where possible, avoid direct impact to potential heritage attributes of the cultural heritage landscape during the design and implementation of the Project. Refinements of the Preferred Route during the design, and land-use within the 100 m Construction Disturbance Area during construction should be planned to avoid impacting known Harvest Areas, Habitation Areas, Cultural, Spiritual, and Sacred Areas, Travel Routes, and Provincial Parks. If avoidance of potential heritage attributes is not feasible, then further assessment of the impacts and mitigation is required. • A Cultural Heritage Evaluation Report will be completed by a Qualified Person(s) to determine the Cultural Heritage Value or Interest of the potential cultural heritage landscape. • If the Project continues to impact the area and it is determined that the potential cultural heritage landscape meets Ontario Regulation 9/06 or Ontario Regulation 10/06, then further assessment of impacts and mitigation is required by completing a Heritage Impact Assessment.	• Not applicable
CH-06	• Mid-Albany Cultural Heritage Landscape	• To be determined during the Cultural Heritage Evaluation Report.	• Operations	• Ministry of Citizenship and Multiculturalism • Ministry of the Environment,	• If the Project continues to impact the area and it is determined that the potential cultural heritage landscape meets Ontario Regulation 9/06 or Ontario Regulation 10/06, then further assessment of impacts and mitigation is required by completing a Heritage Impact	• To be determined during the Cultural Heritage Evaluation Report.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
				Conservation and Parks	Assessment. The Heritage Impact Assessment should take place during the Detail design Phase, when the specific details of the Project are known, and the recommendations of the Heritage Impact Assessment can be incorporated into the final Design. It is anticipated that the Heritage Impact Assessment would address the longer-term effects of the Project, including during the operations and maintenance phase.	
Archaeology						
Stage 1AA-01	• Archaeology	• Stage 1 archaeological assessment.	• Operations	• Ministry of Heritage, Sport, Tourism and Culture • Ministry of the Environment, Conservation and Parks	• A Stage 2 Archaeological Assessment is required on the areas identified as having archaeological potential in the Stage 1 Archaeological Assessments. • The Stage 2 archaeological assessment must be conducted by a licensed archaeologist and must follow the requirements set out in Section 2.1.5 of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario, 2011) for special survey conditions in northern Ontario and on Canadian Shield terrain. • Test pit survey is required at 5 m intervals in areas that fall within 50 m of an identified modern water source. • Poorly drained areas and areas of steep slope are to be mapped and photo documented.	• Archaeological investigations have the potential to reveal buried human remains. Should human remains be identified during any stage of work, the Proponent will be informed immediately, and all archaeological work will halt until the proper authorities have been notified and permission to resume work has been granted, if required.
Stage 2AA-01	• Archaeology	• Stage 2 archaeological assessment.	• Operations	• Ministry of Heritage, Sport, Tourism and Culture • Ministry of the Environment, Conservation and Parks	• Any areas identified as having archaeological potential in the future Stage 2 Archaeological Assessment must complete a Stage 3 or Stage 4 Archaeological Assessment. • A Stage 3 site-specific archaeological assessment is recommended for the Caviar (Eilp 1) site. Avoidance and protection are the preferred options either through project redesign or excluding or incorporating the area of the archaeological site into the development plan. Given that the site is located on the periphery of one of the route options, avoidance and protection might be possible upon choosing the preferred route. The site could therefore be avoided and protected during construction and the integrity of the area could remain intact. Should an avoidance and protection strategy for the Caviar (Eilp-1) site be implemented during construction, it must include:	• Archaeological investigations have the potential to reveal buried human remains. Should human remains be identified during any stage of work, the Proponent will be informed immediately, and all archaeological work will halt until the proper authorities have been notified and permission to resume work has been granted, if required. • Test pit survey is required at 5 m intervals in areas that fall within 50 m of an identified modern water source. • Where areas of archaeological potential include land adjacent to historic water sources (i.e., glacial shorelines), or other areas identified as having archaeological potential based on the results of the Stage 1 AA including the AK information, test pits will be placed at a maximum of 5 m intervals between 0 and 50 m from the feature, and at 10 m intervals between 50 and 150 m from the feature.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
					- Placement of a temporary barrier around the site, including a 20-me protective buffer of land surrounding the site; - Monitoring by a licensed consultant archaeologist for any construction activities that occur within 70 m of the site; - The issuance of “no-go” instructions within the 20-m buffer to all onsite construction personnel or others involved in the construction process (for example, engineers and architects) (Government of Ontario, 2011, Section 4.1.1); - Illustration of the location of the area to be avoided on contract drawings, including explicit instructions to avoid the area; - The presence of a licensed archaeologist onsite to inspect fence installation, inspection of the site by a licensed archaeologist after the completion of all soil-disturbing activities, and reporting of the effectiveness of the avoidance and protection strategy to the Ministry of Citizenship and Multiculturalism; and - Should future repairs or improvements be required near the Caviar (EiIp-1) site or should changes to the current Project Study Area be required, archaeological monitoring by a licensed archaeologist will be required to confirm that the No-Go zone remains in place and that the archaeological site is protected from construction or soil disturbance activities. • Poorly drained areas and areas of steep slope are to be mapped and photo documented.	
Atmospheric and Greenhouse Gases						
AIR- 01	• Air Quality	• Elevated concentrations of particulate matter resulting from fugitive emission sources during construction. The effects assessment for th construction indicates that significant residual effects are not anticipated and residual effects will be short term in duration.	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources	• Development of a Construction Best Management Practices Plan as well as a fugitive dust management plan prior to construction. The Ontario Ministry of Transportation identifies potential mitigation measures that may be taken, if feasible, for transportation related Projects in the Ontario Ministry of Transportation *Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas emissions of Provincial Transportation Projects* (Ontario Ministry of Transportation, 2020). Examples of	• Implement a Construction Monitoring Plan as a mechanism to help mitigate and / or identify potential conditions that may lead to air quality impacts from construction-related activities. A monitoring program, where feasible, may involve either or both air monitoring as well as construction activity monitoring. Construction activity may include verification that construction best management practices are being applied or identify where additional efforts / mitigation techniques may be necessary to help reduce air quality impacts. Construction monitoring may be beneficial in locations where sensitive receptors are in close proximity to the Construction Disturbance Area.

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					best management practices that may be included are: - Implement watering during fugitive dust generating activities such as drilling and material handling. - Limit vehicle speed, where feasible. - Strategic haul planning to reduce overall number of haul trips required for aggregate material demands. Consider sourcing material from the closest available material transfer points. - Where possible, reduce the quantity of material that is either burned or chipped (i.e., consider salvageable material such as salable lumber). - When burning is required consider avoiding periods where meteorological conditions (e.g., wind speed) may result in smoke impacting sensitive receptor locations. - Maintain equipment as per manufacturing specifications. - Implement anti-idling policies or procedures to reduce total vehicle idling times. - Implement blasting mitigation (e.g., charge size) in quarries. - Use explosives only if alternate methods of excavation to remove materials for foundation systems and roads are not feasible. - Prepare a Blasting and Communication Management Plan that is in accordance with *Ontario Provincial Standard Specification General Specifications for the Use of Explosives* (Ministry of Transportation, 2025b) and describes specific measures that would be implemented if blasting is required. - Development of a Construction Monitoring Plan. This plan may be used to validate that best management practices are being implemented and that mitigation actions taken are effective. Where mitigation is not providing a reduction to overall impacts, mitigation options should be revised. Details specific to the scope of the monitoring program would need to be evaluated further following final detail design phases of the Project. Engagement with the Ministry of the	

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					Environment, Conservation and Parks to establish an appropriate monitoring program may be beneficial. - Re-evaluation of potential significance or effect from temporary work camps is recommended following final design.	
AIR- 02	• Air Quality	• Elevated concentrations of particulate matter resulting from fugitive road dust. Residual effects from construction that were classified to have a high magnitude were determined to be significant.	• Operation	• Ministry of the Environment, Conservation and Parks	• Development of a Best Management Plan for fugitive dust. • It is recommended that the proximity of receptors to the Construction Disturbance Area should be considered when employing mitigation techniques. It should be noted that maximum traffic volumes used to assess potential effects are those Projected for the 2046 year (maximum Projected Annual Average Daily Traffic). Mitigation techniques can be both evaluated and implemented during earlier operational years when traffic volumes are lower than Community Access Road maximum. • Due to the size of the road network, as well as its geographic location, feasibility / limitations will be present for long-term operations monitoring. It is recommended that consideration of input gathered through other technical monitoring programs specific to potential air quality concerns (in other words, potential dust deposition on vegetation) is completed and evaluated for consideration of future mitigation or monitoring options. • Development of a Best Management Plan for fugitive dust prior to operation phase of Community Access Road. Best management practices that may be included within the plan include: - Implement watering or application of Ontario Ministry of Transportation approved dust suppressants that are environmentally friendly; and - Keep vegetation such as grasses shrubs and trees along the highway to enhance gravitational deposition of particles and natural windbreaks. Specifics to this are documented in the Revegetation Plan. • Consideration of input gathered through other technical monitoring programs specific to potential air quality concerns (i.e., potential dust deposition on vegetation) is completed and	• Not applicable.

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					evaluated for consideration of future mitigation or monitoring options.	
Community Well-Being						
CWB-01	• Sustainable Population Growth	• Changes to age distribution and community population.	• Construction and operation and maintenance	• Not applicable	• Owner / operator to implement Diversity, Equity, and Inclusion hiring policy. • The owner / operator will establish a working group with Marten Falls First Nation and Aroland First Nation to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, including those in relation to changes in population or social demographics.	• All construction workers will be housed in autonomous work camps to limit demographic shifts and limit disruptions to social structures and community dynamics.
CWB-02	• Labour Market Dynamics	• Potential barriers to community members from Marten Falls First Nation and Aroland First Nation accessing job market.	• Construction	• Not applicable	• Project owner / operator will provide information on available opportunities to help Marten Falls First Nation and Aroland First Nation community members understand the opportunities and provide time to obtain the necessary qualifications. • Owner / operator will create a Local Training Plan to complete a local skills assessment and utilize local labour force. • Owner / operator will provide ongoing job readiness programs, continuously enhancing training opportunities to support community members in their transition into the workforce and long-term career growth. Timing of training and education will be coordinated in advance of hiring to reduce barriers to participation. • The owner / operator to establish working groups with Marten Falls First Nation and Aroland First Nation to discuss construction-related issues and unemployment by identifying and removing employment barriers, offering job readiness programs, and providing counselling and addiction support services to support community members. • Project owner / operator will implement Community Readiness Strategies and Adaptive Management Plans to assess and respond to community needs through construction. • Owner / operator to implement Diversity, Equity, and Inclusion hiring policy, enhanced through training programs, job fairs, and outreach, to actively prioritize women in construction-related employment opportunities and reduce gender disparities in the work force.	• Owner / operator to gradually integrate new workers into the workforce through shorter days and shift rotations. • All construction workers will be housed in autonomous work camps to limit disruptions to communities.

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CWB-03	• Labour Market Dynamics	• Creation of direct, indirect, and induced jobs. • Increased labour income and Gross Domestic Product contributions.	• Construction • Operations	• Not applicable	• No mitigation measures proposed.	• No mitigation measures proposed.
CWB-04	• Labour Market Dynamics	• Supporting educational attainment.	• Operations	• Not applicable	• No mitigation measures proposed.	• No mitigation measures proposed.
CWB-05	• Economy	• Creation of new business opportunities for Indigenous businesses related to construction contracts and services, as well as in road operation and maintenance and transportation services.	• Construction • Operations	• Not applicable	• No mitigation measures proposed.	• No mitigation measures proposed.
CWB-06	• Economy	• Increased economic activity and output, with significant contributions to Gross Domestic Product, labour income, gross operating surplus, and tax revenues.	• Construction • Operations	• Not applicable	• No mitigation measures proposed.	• No mitigation measures proposed.
CWB-07	• Economy	• Increased productivity of individuals and businesses in the region.	• Construction • Operations	• Not applicable	• No mitigation measures proposed.	• No mitigation measures proposed.
CWB-08	• Economy	• Boost in the value of land that is surrounding the transportation infrastructure.	• Construction • Operations	• Not applicable	• No mitigation measures proposed.	• No mitigation measures proposed.
CWB-09	• Economy	• Improvement in diversifying the economy.	• Construction • Operations	• Not applicable	• No mitigation measures proposed.	• No mitigation measures proposed.
CWB-10	• Economy	• Disruptions to certain businesses that are in the area close to where the road is being developed.	• Construction	• Not applicable	• Project owner / operator will create a Local Content Plan to utilize a certain dollar value or share towards local businesses and owner / operator. • Project owner / operator to consult with local businesses that would be potentially affected by work zone impacts and determine the optimal times and conditions for the construction to take place, such as during off-peak times. • Develop a comprehensive inventory of the labour and business / procurement / contracting requirements for the project by identifying project requirements (in other words, labour needs, business / procurement needs and contracting needs); and categorizing requirements by time frame (in other words, short-term, medium-term, and long-term). • Develop a comprehensive inventory of the Marten Fall First Nation and Aroland First Nation current labour and business / procurement / contracting capacities and	• Project owner / operator will implement Community Readiness Strategies and Adaptive Management Plans to monitor and respond to community needs through construction.

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					capabilities to address the Project's requirements by engaging Marten Falls First Nation and Aroland First Nation leaders and members virtually; collecting data (in other words, labour market information; and business and procurement data); analyzing and categorizing skills inventory, business capabilities and contracting experience. • Conduct a labour and business / procurement / contracting demand and supply gap analysis and develop initiatives to address the gaps.	
CWB-11	• Community Access to Infrastructure and Services	• Disruptions due to increased transportation to and from the community.	• Construction	• Not applicable	• Road owner / operator will develop an Equipment Mobilization Plan with both Marten Falls First Nation and Aroland First Nation for the movement of equipment, personnel, supplies, and resources. Where possible, construction traffic should be separated from community traffic to improve safety and minimize disruptions. The mobilization plan should also include a clear communications strategy to keep the community informed of the mobilization schedule, making residents aware of periods of increased heavy equipment traffic on the winter road.	• The owner / operator, when possible, will transport employees on a charter flight.
CWB-12	• Community Access to Infrastructure and Services	• Increased demand on local infrastructure and essential services including roads, airports, water facilities, and more.	• Construction	• Not applicable	• The owner / operator will establish working groups with Marten Falls First Nation and Aroland First Nation to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, including topics avoiding pressure on local, essential services and infrastructure. • The owner / operator will develop waste management policies to minimize waste production and confirm responsible disposal. Collaboration with the community will be prioritized to develop effective construction waste management and disposal strategies, incorporating local input. • The owner / operator will establish a secure fuel storage facility and confirm a reliable fuel supply throughout the construction season. Fuel deliveries will be planned in advance and transported via the winter road, reducing reliance on costly air transport and preserving community fuel resources.	• All construction workers (including on- and off-reserve members) will be housed in autonomous work camps equipped with independent water, wastewater, and power systems. These systems need to be properly maintained to reduce reliance on community infrastructure and to prevent contamination risks. • All fuel storage sites will comply with safety and environmental regulations to prevent spills and contamination.
CWB-13	• Housing Adequacy	• Changes to housing adequacy and suitability	• Construction • Operations	• Not applicable	• The owner / operator to establish working groups with Marten Falls First Nation and Aroland First Nation to meet regularly to discuss	• All construction workers, including on- and off-reserve members, will be housed in autonomous work camps. This

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	and Suitability				community-proposed topics in relation to the construction of the Community Access Road, including topics associated with housing including monitoring housing demand and adjust to meet changes in housing needs.	will help limit demographic shifts, reduce disruptions, and prevent additional pressure on community housing.
CWB-14	• Cultural Preservation and Change	• Changes within the traditional economy and cultural practices	• Construction	• Not applicable	• Prior to construction, owner / operator will develop Access Management Plans with Marten Falls First Nation and Aroland First Nation in relation to hunting, trapping and gathering activities. All activities must conform to licensing requirements and adhere to the rules and regulations under the Ministry of Natural Resources. • The owner / operator will establish a working group with Marten Falls First Nation and Aroland First Nation, and other interested Indigenous communities, to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, including where to appropriate locate safety pull out areas to promote safe access, and other traditional harvesting issues.	• Provide flexible work schedules during key hunting, trapping, and gathering seasons to support continued access to traditional food resources.
CWB-15	• Cultural Preservation and Change	• Traditional language decline	• Construction	• Not applicable	• N/A	• Owner / operator to provide Training and Work Materials in Indigenous Languages. Offer onboarding materials, safety protocols, and job-related paperwork in Indigenous languages alongside English to provide language accessibility for all workers. • Owner / operator to implement multilingual worksite signage. Reduce language barriers at the worksite by using multilingual signage at work sites, including directional signs, safety notices, workplace policies, and equipment labels, to promote the use of Indigenous languages in the workplace. • Owner / operator to provide Cultural Sensitivity and Language Awareness Training. Educate non-Indigenous supervisors and workers on the importance of Indigenous languages in cultural identity, knowledge transmission, and community well-being. Encourage an inclusive workplace where traditional language use is supported and valued. • Owner / operator to implement a Zero-Tolerance Policy for Language Discrimination. Establish clear workplace policies so that Indigenous workers are not discouraged from speaking their traditional language. Supervisors and project managers should actively reinforce language inclusivity and address any instances of discrimination or bias. • Owner / operator to introduce a workplace mechanism, such as a cultural safety flag, allowing employees to pause work or request support if they feel uncomfortable due to language-

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						related issues. Propose a Cultural Safety and Stop Work Protocol.
CWB-16	• Community and Public Health	• Changes to mental health and well-being.	• Construction	• Not applicable	• Marten Falls First Nation with owner / operator will establish a working group with Marten Falls First Nation and Aroland First Nation to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, which could include topics in relation offering mental health supports, counselling and addiction support services.	• Owner / operator to provide cultural safety training for all workers to promote a safe and inclusive work environment. • Owner / operator to enforce a zero-tolerance policy for workplace discrimination so that Indigenous workers feel respected and included. • Owner / operator to provide all employees training on violence and harassment in the workplace. • Owner / operator to provide mental health counselling, mentorship, and peer support at work camps, with onsite Elders or cultural liaisons to promote emotional and cultural well-being. • Owner / operator to implement a gradual work force integration for community members, introducing shorter workdays and shift rotations.
CWB-17	• Community and Public Health	• Increased risk of substance use.	• Construction	• Not applicable	• The owner / operator to develop and implement monitoring and enforcement, including regular security checks at work camps and entry points (e.g., airport) for alcohol and substances to prevent entry into the community.	• All construction workers (including on- and off-reserve members) will be housed in autonomous work camps to limit demographic shifts and limit disruptions to social structures and community dynamics. • Owner / operator to collaborate with the community (Marten Falls First Nation and Aroland First Nation) to provide mental health counselling, addictions counselling, mentorship, and peer support at work camps, with onsite Elders or cultural liaisons to promote emotional and cultural well-being. • Owner / operator to enforce a zero-tolerance policy for alcohol and substance use at work camps. • Owner / operator to implement a gradual work force integration for community members, introducing shorter workdays and shift rotations (e.g., starting with 2-3 days on with a day or two break instead of 10 consecutive days) to ease new workers into construction roles. • Owner / operator to provide cultural safety training for all workers, including supervisors and non-Indigenous employees, to complete training on Indigenous culture, traditions, and historical experiences, to promote a safe and inclusive work environment. • Owner / operator to hold training session on violence and harassment prevention. • Owner / operator to enforce a zero-tolerance policy for workplace discrimination so that Indigenous workers feel respected and included. • Owner / operator to provide cultural and recreational activities, when possible, in work camps.

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CWB-18	• Community and Public Health	• Decrease in mental health and well-being due to loss of connectivity to the land, change in sense of place and identity due to presence of the road.	• Operations	• Not applicable	• Owner / operator to form a Working Group with Marten Falls First Nation, Aroland First Nation, the Road Contractor, and the Road Owner to develop a Safety and Wellness Plan that addresses project-related mental health and well-being concerns.	• Not Applicable
CWB-19	• Community and Public Health	• Increase in substance use due to easier access to drugs and alcohol.	• Operations	• Not applicable	• Owner / operator to form a Working Group with Marten Falls First Nation, Aroland First Nation, the Road Contractor, and the Road Owner to co-develop a Safety and Wellness Plan that addresses project-related substance use concerns. • Owner / operator will develop a community-based reporting system that enables Indigenous community members and employees to anonymously report concerns, including those relating to violence, harassment, and crime, providing an option for anonymous reporting.	• Owner / operator to implement a monitoring program and perform safety checks at work camps and entry points (for example, airport) for alcohol and substances to prevent entry into the community.
CWB-20	• Access to Clean Water	• Changes in access and cost of clean water. • Changes in quality of drinking or recreational water due to construction or operations activities.	• Construction • Operations	• Not applicable	• Conduct an existing conditions assessment of surface water used for drinking and recreational purposes. • Technical study recommendations to protect surface water and groundwater.	• During construction, implement temporary water storage tanks or other measures to accommodate peak water demands during construction, reducing reliance on flown-in water and helping to balance the construction and community needs. • During construction and operations adhere to required mitigations to protect surface water quality. Conduct monitoring of surface water and groundwater quality during construction and operations. • Human health team to review monitoring to evaluate for potential impacts to human health.
CWB-21	• Reliance on Store-Bought Food	• Change in reliance on store-bought food in the community.	• Construction • Operations	• Not applicable	• Not applicable.	• Owner / operator to coordinate bulk-orders of a diversity of fresh, high-quality foods to increase availability and selection of high-nutritional value foods during construction. • Owner to sponsor community-led educational efforts related to nutritional, healthy food choices.
CWB-22	• Traditional Foods	• Change in the availability of traditional foods.	• Construction • Operations	• Not applicable	• The owner / operator will establish a working group with Marten Falls First Nation and Aroland First Nation, and other interested Indigenous communities, to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, including identifying key harvesting areas to implement measures that can minimize construction disturbances to traditional food resources during harvesting seasons, adjusting construction activities to avoid peak harvesting periods etc.	• Owner / operator to provide flexibility in work schedules during important traditional food hunting and gathering periods. • Owner / operator to sponsor community-led harvesting initiatives in Marten Falls First Nation and Aroland First Nation.

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					• Owner to work with Ontario's Ministry of Natural Resources to encourage more frequent patrols of Conservation Officers along the Community Access Road to confirm hunters and fishermen are not exceeding their limits and that they have the proper tags and licenses. • Owner / operator to work with communities and governments, as required, to support education and development of Indigenous Conservation Officer (Game Warden) program.	
CWB-23	• Traditional Foods	• Change in the quality of country foods.	• Construction • Operations	• Not applicable	• Supplement existing conditions information related to the chemicals or concern present in country foods with the collection of additional samples from Marten Falls and Aroland Community Members over several years. • Continue an existing conditions assessment of country foods and review monitoring reports during construction and operations to evaluate potential for effects to country foods quality. • Review monitoring reports for surface water, sediment, air and groundwater quality during construction and operations to evaluate potential for effects to country foods quality.	• Not applicable.
CWB-24	• Public Safety	• Increased road-related accidents lack of driver's licences, and increased strain on emergency services.	• Construction	• Not applicable	• Explore opportunities to increase total Driver Licence holders, alongside the Ministry of Transportation, including partnerships with third-party remote licence providers. • Develop Equipment Mobilization Plans with local First Nations for the movement of equipment, personnel, and supplies. • Develop, with the Ministry of Health, onsite safety and emergency preparedness programs to include fire suppression systems, medical care, security personnel, monitor safety compliance, emergency response plans and clear communication protocols between construction teams and emergency responders.	• Implement driver safety training tailored to winter road conditions and remote community travel. • Comply with all relevant health and safety requirements, including but not limited to, preparation of a Health and Safety Policy.
CWB-25	• Public Safety	• Increased violence and harassment	• Construction	• Not applicable	• Owner / operator to establish working groups with Marten Falls First Nation, Aroland First Nation to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, including: - Financial literacy programs for workers and families to help manage income fluctuations and reduce financial stress, addressing	• House workers in autonomous work camps to limit unsupervised interactions with the community and prioritize gender-divided living quarters in the work camps. • Enforce zero-tolerance policies for harassment and violence. • Provide cultural safety and language awareness training for all workers, including supervisors and non-Indigenous employees, to complete training on Indigenous culture, traditions, and historical experiences to understand

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					economic disparities that could contribute to resentment and lateral violence. - Measures to strengthen cultural programming and land-based activities to reinforce community cohesion and well-being. Strengthening cultural identity and offering community-driven programs can provide positive coping mechanisms for workers and families experiencing stress due to shift work and can offer a protective factor against violence and social disruption by strengthening support networks and reducing isolation. - Supports for unemployed community members by identifying employment barriers and offering job readiness programs to support community members facing unemployment.	Indigenous cultural norms and appropriate community interactions to reduce instances of harassment or violence. • Comply with the *Human Rights Code* to prevent workplace discrimination and uphold employee rights to reduce work force tensions. • Mental health counselling, mentorship, and peer support at work camps to reduce stress-related aggression. Onsite Elders or cultural liaisons will offer emotional support and traditional guidance to workers. • Implement a gradual work force integration for community members, starting with shorter workdays and shift rotations. • Implement Diversity, Equity, and Inclusion hiring policy.
CWB-26	• Public Safety	• Increased in road-related injuries due to increase in road traffic.	• Operations	• Not applicable	• The Owner / operator will establish a working group with Marten Falls First Nation and Aroland First Nation to meet regularly to discuss community-proposed topics in relation to the operation of the Community Access Road, including advocating for funding to build a local fire station, recruit paramedics, and expand medical transport services; develop emergency preparedness plans, first responder training programs, and informing in independent medical providers (e.g., dentists and physiotherapists) for potential for increased demand.	• The owner to engage with law enforcement to implement increased monitoring; prepare for the opening of the road, allowing for an increased presence to monitor traffic, enforce speed limits, and deter impaired or reckless driving. • The owner to consider alternative methods to using salt on roadways to prevent attracting wildlife, minimizing the potential for vehicle-wildlife collisions. • The road owner will need to engage with law enforcement to implement increased monitoring of traffic and reckless driving to reduce road safety incidents. • The owner to consider the installation of road signage in both English and Indigenous languages indicated speed limits, sharp turns, wildlife crossings, and other hazards.
CWB-27	• Public Safety	• Increased in violence and harassment	• Operations	• Not applicable	• The Owner / operator to establish working groups with Marten Falls First Nation, Aroland First Nation, and other interested Indigenous communities from the Regional Study Area, to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, including, could include the consideration of developing community-based violence prevention programs, including safe shelters and crisis support for victims; strengthening mental health, addictions, harm reduction programs, and family support services to address root causes.	• To address potential effects anticipated during operations, the owner / operator will establish several different working groups with Marten Falls First Nation and Aroland First Nation to meet regularly to discuss community-proposed topics in relation to the Community Access Road. In many cases, these working groups should be established in detail design and then carry through construction and, potentially, into operations.
CWB-28	• Biophysical Determinants of Human Health	• Change in the quality of soils, sediment, and air • Change in noise levels	• Construction • Operations	• Not applicable	• Compile information on use of surface water for transient recreational and potable water sources and locations of use.	• During construction, monitoring of surface water quantity and quality parameters (including but not limited to water taking and discharge rates, pH, total suspended solids, turbidity, temperature, dissolved oxygen, biochemical oxygen demand,

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		• Potential for accidents and malfunctions			• Conduct surface water sampling where project effects are likely to interact with use of surface water for transient recreational and potable water sources to establish existing conditions. • Supplement existing conditions information related to the chemicals or concern present in country foods with the collection of additional samples from Marten Falls First Nation and Aroland First Nation members over several years. • Chemical analysis of quarry materials to be used in road construction should be completed during detail design. These materials will ultimately make up the majority of the fugitive dust created during road construction and operations. Interpretation of this information can be used to source materials with the least potential impacts and to support appropriate mitigations are implemented. • For groundwater, a pre-construction geochemical testing and monitoring program to assess the potential for acid rock drainage from any soils or bedrock that will be exposed during construction. The groundwater quality samples should be analyzed for general water quality parameters at minimum (such as, pH, temperature, conductivity, hardness, alkalinity, chloride, nitrate, nitrite, sulphate, phosphate, ammonia, total dissolved solids, dissolved organic carbon, calcium, copper, iron, magnesium, manganese, potassium, sodium, and zinc). Additional parameters of concern should also be sampled for where identified. • During detail design, develop a geochemical testing and monitoring program to assess the potential for acid rock drainage from any soils or bedrock that would be exposed during aggregate extraction. Include assessment of the material proposed to be used for road construction for potential for metal leaching and metal composition. Fugitive dust from the Project will be made up of materials proposed to be used for road construction. • Details are included in the Problem Formulation for Human Health Risk Assessment.	and other contaminants of concerns as required). Monitoring of total suspended solids and / or turbidity instrumented measurements and / or visual observations), as well as visual inspections to confirm the presence or absence of oil or sheen. • A construction groundwater monitoring program to continue the pre-construction monitoring through construction activities to identify and quantify any impacts to groundwater levels or quality resulting from construction activities. Groundwater quality should be sampled at the monitoring stations at least monthly for the same parameters as the pre-construction monitoring. • During construction, a construction monitoring program is recommended as a mechanism to help mitigate and / or identify potential conditions that may lead to air quality impacts from construction-related activities. An air monitoring station should be set up in Marten Falls throughout construction and into operations. Air monitoring in the community should have transparency in data to allow sensitive individuals to be aware of levels and remain inside during times of high particulate concentrations. • Details are included in the Problem Formulation for Human Health Risk Assessment. • During operations, monitoring of water quality, sediment quality, and streamflow conditions at waterbodies that include greater sensitivity or implication to change from the standpoint of fish habitat, Species at Risk, channel stability, drainage pattern, or other environmental considerations. The specific monitoring locations will be determined during the permitting and design stages of the Project; however, it is expected that waterbodies of varying size (small, medium, large) would be captured, recognizing that this would allow the performance / effectiveness of mitigation and enhancement measures to be evaluated Monitoring of surface water quantity and quality parameters will include but not limited to water taking and discharge rates, pH, total suspended solids, turbidity, temperature, dissolved oxygen, biochemical oxygen demand, and other contaminants of concerns as required). Monitoring of total suspended solids and / or turbidity instrumented measurements and / or visual observations, as well as visual inspections to confirm the presence or absence of oil or sheen. • An operations groundwater monitoring program to continue the construction monitoring until sites without impacts are decommissioned. Site where impacts to groundwater were observed should continue monitoring until a return to existing equivalent conditions is observed or a site-specific remediation monitoring plan is implemented. Groundwater monitoring should continue at applicable sites used

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						continuously or intermittently during operations, with monitoring starting and ending according to the established construction monitoring programs for the intermittently active sites. • During operation, it is recommended that consideration of input gathered through other technical monitoring programs specific to potential air quality concerns (in other words, potential dust deposition on vegetation) is completed and evaluated for consideration of future mitigation or monitoring options. An air monitoring station should be set up in Marten Falls throughout construction and into operations. Air monitoring in the community should have transparency in data to allow sensitive individuals to be aware of levels and remain inside during times of high particulate concentrations.
Land and Resource Use						
LRU- 01	• Land Use Compatibility	• The preferred route overlaps with approximately 1,257.1 ha of lands identified as Draft Dedicated Protected Area within the Draft Marten Falls First Nation Community-Based Land Use Plan. The Plan remains in draft form and continues to be developed. Draft Dedicated Protected Areas have been considered and the project team has learned that Marten Falls First Nation will revise the draft to remove these locations. • Constance Lake First Nation currently has a Terms of Reference issued for development of its Community-Based Land Use Plan; the Terms of Reference identifies an area of interest (including “Shared planning area #2”) that overlaps with the Project Study Area. • The Project is not located within any land use designations under the Municipality of Greenstone Official Plan. • Crown land management policies could support future construction of this road under the Public Lands Act (Crown Land Use Policy Atlas) and Far North Act jurisdiction. • The Proposed Route must be withdrawn from mining rights. • Potential for future development proposals during operations and	• Construction	• Ministry of Natural Resources • Ministry of Mines • Ontario Parks	• Involve Marten Falls First Nation in land and resource use planning activities to manage new development. • Engage with Aroland First Nation for additional measures. • Where relevant, consider any additional Community-Based Land Use Plan planning information that becomes available from Constance Lake First Nation through Community-Based Land Use Plan Terms of Reference process. • The owner / operator to negotiate with land users for the area that have expressed concerns with impacts associated with socio-economic losses as a result of the Community Access Road. Continued consultation during detail design will be required to address these concerns and comments. Future discussions and engagement with Ontario Parks will be completed during detail design to implement a communication strategy in order to provide ample notice for recreation users in the areas of construction.	• Not applicable

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		maintenance phase due to new access provided by the road. • No anticipated effects on Gender-Based Analysis Plus sub-groups.				
LRU- 02	• Ontraio Parks and Protected Areas	• Direct removal of 5.7 ha of Albany River Provincial Park land, representing 0.006% of the park's total area. • Potential noise and air quality effects on park users including canoeing and kayaking activities during construction, with noise levels up to 70 dBA at the bridge crossing in Albany River Provincial Park and 45 dBA at the most eastern end of Ogoki River Provincial Park. • Visual impact from new bridge in Albany River Provincial Park. • Improved access to Albany River and Ogoki River Provincial Parks, potentially increasing user volumes and changing the wilderness character of these parks. • No anticipated effects on Gender-Based Analysis Plus sub-groups.	• Construction • Operations	• Ministry of the Environment, Conservation and Parks • Ontario Parks	• Continued consultation between Ontario Parks and the owner of the road to develop an aesthetically pleasing bridge structure and to determine appropriate access or restrictions at the Albany River. • Any potential access considerations will be explored further through ongoing consultation with Ontario Parks so that future decisions align with park management objectives and protection priorities. • Marten Falls First Nation with the owner / operator to have further discussions with Ontario Parks regarding the Albany and Ogoki river crossings, access issues, and user impacts as well as identification of requirements for updates to Ogoki and Albany River Provincial Parks Management Statements and / or future Management Plans.	• Refer to mitigations as outlined in the Air Quality IDs. • Limit clearing and use of land within Parks to the minimum necessary for construction; locate temporary work areas outside of parks.
LRU-03	• Recreation and Tourism	• Improved access to remote crown lands and water resources, potentially increasing recreation and tourism opportunities and negative impacts on remote outfitter operations. • Potential negative effects on navigation during construction due to bridge construction over watercourses. • Changes in environmental conditions (i.e., noise, air quality, viewscapes) affecting recreation and tourism activities. • Potential increase in hunting pressure of key species which could affect their populations. Any restrictions on public access for hunting and / or fishing in the local area due to Indigenous community concerns would reduce the recreation benefits of the project. • No anticipated effects on Gender-Based Analysis Plus sub-groups	• Construction • Operations	• Ministry of Natural Resources • Ministry of Tourism Culture and Gaming • Ontario Parks	• Continued consultation with Ministry of Natural Resources and Ministry of Tourism Culture and Gaming to seek feedback related to potential introduction of access. • Collaborate on appropriate signage related to messaging on poaching, legal hunting, fishing or potential portage crossing (at Ogoki River). • Conduct monitoring measures as outlined in the air quality, noise, visual, surface water, fish, wildlife, and ungulates technical reports to manage impacts related to remote outfitters and recreation (fish and game harvesting) activities.	• Design and install proper water crossing structures to accommodate flow, drainage, and fish passage. • Navigable crossings to be installed in areas identified as navigable. • Minimize vegetation clearing to only what is required for construction and staging. • Implement progressive reclamation and revegetation of disturbed areas no longer required following construction. • Provide signage along the Preferred Route to inform road users about possible interaction with recreation users and wildlife. • Assess need for parking control along roadway for safety reasons. • A cleared width of 60 m will be maintained, buffer zones of 30 m will be maintained around waterbodies, and vegetation clearing activities will be limited. • The Proponent will discuss possible restrictions for hunting in the Project Area with the Ministry of Natural Resources.

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LRU-04	• Extractive Resource Industry	• 2,234 ha of operational mining claims affected by the road and associated Project components. • Improved access to mineral resource areas, facilitating the development of mines and providing economic benefits. • No anticipated effects on Gender-Based Analysis Plus sub-groups.	• Construction • Operations	• Ministry of Mines • Ministry of the Environment, Conservation and Parks	• Engage with Wabassi Resources Inc. regarding their exploratory mining lease on lands of aggregate site SG-20.	• Engage with mining claim holders during the road design stage to minimize impacts on known mineral deposit areas and / or proposed mining activities including exploration activities. • Mining companies to be advised of any access needs to the roadway including location of any planned roadway entrances. • Monitoring programs should be established to monitor use of the land once the road is operational with respect to collisions and recreation activities (such as, boating, fishing and hunting) so that wildlife and fish populations impacts are monitored and noted during maintenance and rehabilitation. A public reporting systems should be developed to report vehicle-wildlife collisions.
LRU-05	• Forest Industry	• Removal of 283 ha of forest within the Ogoki Forest, representing 0.04 percent of the forest's total area. • Potential increase in access to lands northeast of the Ogoki Forest containing merchantable timber stands. • No anticipated effects on Gender-Based Analysis Plus sub-groups.	• Construction	• Ministry of Natural Resources • Ontario Parks	• Engage with GreenForest Management Inc. to discuss the Annual Work Schedules as part of the Ogoki Forest Management Plan (2020-2030, and future plans) to learn of future vegetation clearing which could align with future construction as well as potential access through Painter Lake Road required for forestry operations.	• Should any commercial forest trees be felled within the Ogoki Forest Management area for the construction of the Project, the value of the timber will be determined.
LRU-06	• Remote Outfitters	• Six remote tourism outfitter camps were identified within 5 km of the Construction Disturbance Area. • Change in remoteness and attractiveness of outfitter camps due to new road access. • Potential noise, air quality (construction), and visual impacts on outfitter operations and guest experience. • Potential changes in wildlife affecting outfitter activities. • No anticipated effects on Gender-Based Analysis Plus sub-groups.	• Construction • Operations	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks	• The owner of the road should continue to consult and negotiate with remote outfitters as Detail Design phase progresses.	• Engage • Engage further with the impacted • outfitters / commercial outpost camp owners. • Provide at least one year notice to the remote outfitters in advance of construction start. • Implement mitigation measures for air quality, noise, visual, surface water, fish, wildlife, and ungulates as outlined in the appropriate Technical Support Documents. • The possession and use of firearms will not be permitted for construction personnel. • Restrict public access to the Marten Falls Community Access Road corridor during construction. Gate temporary access roads and block and restore as soon as possible after they are no longer needed. Permanent access roads used for maintenance activities will be gated while not in use. • Develop and implement an Environmental Protection Plan that includes the following measures to control, and / or restrict public use of access roads during construction and operation: speed limits, gates / manned gates, signage, reduced road standard, felling of timber across temporary access roads after reclaimed, removal of temporary watercourse crossings, reduce traffic by locating camps near construction sites. Posting of restricted access and speed signage will follow the *Construction Specification for*

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						Temporary Traffic Control Devices (Ministry of Transportation, 2025c). • During operations and maintenance, the Marten Falls Community Access Road will be accessible to the public but access roads for aggregate areas and other infrastructure required for maintenance activities will be gated to limit public access. Employees will be prohibited from hunting or carrying firearms while working on the Project maintenance.
LRU-07	• Trapping	• Overlap with seven traplines. • Potential disturbance to furbearing species (i.e., wolverine, American marten, beaver) due to noise and human presence. • Improved access to 13 identified trapping areas. • No anticipated effects on Gender-Based Analysis Plus sub-groups. • Reduced areas available for trapping activity. • Disturbances to Project adjacent lands during construction and operations (e.g., from noise)	• Construction • Operations	• Ministry of Natural Resources	• Continued engagement with trapline holders through communication protocols and development of signage and appropriate posting locations that is determined through the detail design phase (in sequence areas of future road construction).	• Provide notice to trapline holders about construction timelines and allow access through the Construction Disturbance Area when safe. • Permit travel through the Project corridor by trappers during construction with appropriate safety measures. • An Environmental Protection Plan will be implemented that includes the following measures to control, and / or restrict public use of access roads during construction and operation: speed limits, gates / manned gates, signage, reduced road standard, berming or felling of timber across temporary access roads after reclaimed, removal of temporary watercourse crossings, reduce traffic by locating camps near construction sites. Posting of restricted access and speed signage will follow the *Construction Specification for Temporary Traffic Control Devices* (Ministry of Transportation, 2025c). • Implement Environmental Protection Plan measures to protect sensitive sites like beaver lodges. • Communicate with trapline tenure holder in advance of, and during construction. • Permit travel through the project corridor by the trapper during construction. • Same mitigation measures previously outlined for the Valued Component #7 Trapping.
LRU-08	• Energy and Linear Infrastructure	• Marten Falls Community Access Road would promote linear infrastructure parallel to the road corridor. • Potential for increased opportunity for new energy facilities and linear infrastructure along the Project's route during operations and maintenance. • No anticipated effects on Gender-Based Analysis Plus sub-groups.	• Operations	• Ministry of Infrastructure	• Not applicable	• No specific mitigation recommended, but any potential energy projects must undergo their own Environmental Assessment / Impact Assessment process.
Visual						

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VIS-01	• Cultural Heritage Resources and Indigenous Experience and Sense of Place • Parks and Protected Areas • Recreation and Tourism • Permanent Settlements	• Construction activities may result in temporary changes to visual character and views due to the presence of equipment, temporary works, cleared approaches, exposed soils, and short-term dust deposition. • Construction lighting may affect night sky viewing and night-time wilderness character if not controlled. • Operations may result in long-term changes to visual character and views due to the presence of permanent bridge structures and maintained corridor opening, with localized medium-magnitude effects in very close-range river crossing views and generally low-magnitude effects in broader viewsheds • Indirect effects may include maintained openings due to vegetation management and seasonal snow windrows • Intermittent headlight beams may be perceptible, especially near open-water crossings and the Community approach.	• Construction • Operations	• Ontario Parks	• Use matte or weathered finishes for steel; consider colour or texture for exposed concrete; non-glare fasteners; avoid bright, specular surfaces in the design. • Co-develop finish palette, and bridge design, edge form, and opening limits with Indigenous knowledge holders and community members, • Site temporary staging, batch plants, and stockpiles behind landforms or retained vegetation where possible; cap material or equipment stack heights below the treeline where feasible. • Shape abutments and approach embankments to follow adjacent slopes where possible; use local rock; place coarse woody debris to restore texture; implement rapid stabilization and planting within the same season where possible. • Develop pre-clearing inspection forms. Stake meandering clearing limits; keep visible openings at shorelines to the smallest practicable width; feather edges with retained clumps and shrub screens where possible. • Point Receptor Validation and Protected or Priority No-Go View Cone Mapping: Field verification with Indigenous knowledge holders, Parks representatives, or other applicable community representatives to confirm exact lines of sight for specific locations that hold unique, sacred, or otherwise special, Indigenous cultural or sense of place value points identified during this assessment or through further engagement. These are locations that would be considered absolute no-go locations for Project-related visual environment effects; wherein destruction of the overall visual character (e.g., clearing of all vegetation and constructing a road) of this precise location would be detrimental. One example of this type of location could be a burial ground. Further engagement and ground-truthing is required to identify these precise locations during the final design and micrositing stages of the Project. - Deliverable: Georeferenced view cones of absolute no-go locations, including limit-of-clearing stakes signed off prior to clearing. The clearing limits should leave enough vegetation to prevent views of the	• Prohibit floodlighting; allow downward facing, fully shielded task lights only; enforce dark hours. • Schedule visually intrusive tasks outside peak paddling and cultural use periods identified with communities and outfitters where feasible • Apply water or equivalent suppressant; cover or stabilize stockpiles; promptly stabilize exposed soils; clean hard surfaces at staging areas. • Salvage and respread organics; seed with native species or allow natural regeneration; decommission temporary access; restore topography (progressive reclamation) • Provide clear advance notices for intrusively visible works; maintain one or more quiet, dark vantage spaces away from bridge view for elders and youth during key seasons. • Field checks from pre-construction (existing conditions) photo points and along staked limits; compare to edge plans; Site layout review versus “staging outside view cones” plan prior to set-up and after any relocation • Night audits; lux spot checks at ground (qualitative pass / fail), photograph capture, confirming no night-time lighting or night light pollution • Monitoring of dust and surface lightening near water and community approach, • Shoreline shaping and materials; As-built checks versus drawings; photograph from water level to confirm final form aligns with intended design • Confirm reclamation of temporary work areas is progessing; • Should community member complain about headlight light spill; Observational checks at identified lines of sight (with resident consent), including night photographs to confirm nuisance. If confirmed, installation of low berms or dense planting to prevent lines of site where possible.

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					Construction Disturbance Area from these absolute no-go locations. • Existing Conditions Photographs: Install permanent, surveyed photo-stations (minimum three at each of the Albany River Crossing and Ogoki River Crossing): upstream near, upstream mid, downstream near; plus two along Marten Falls Community approach, and any area identified in the task and deliverable preceeding (Point Receptor Validation and Protected or Priority No-Go View Cone Mapping). Capture leaf-on and leaf-off daytime sets; one night set under dark, clear conditions. - Deliverable: Existing Conditions Photograph Log with coordinates, bearings, lens, exposure, sky condition, with focus and attention to the absolute no-go protected or priority view cone locations.	
Climate Adaptation and Resiliency						
CLIMATE-01	• Extreme (high) Temperature and Heat Wave – Construction camps	• Extreme temperature and heat waves can reduce productivity and cause delays in construction and maintenance work. • Extreme temperature and heat waves can increase indoor air temperature in construction trailers and therefore the need for cooling/ventilation systems. • High temperature and heat waves will reduce the loading rate (maximum power rate) of above ground transformers and other electrical equipment like generators. The life expectancy for transformers (as for other electrical equipment) is reduced by 50% for every 10°C over their rated temperature limit. • The demand for water may increase during periods of high temperature and heat waves.	• Construction	• Ministry of Labour, Immigration, Training and Skills Development • Health Canada	• Increase thermal efficiency (e.g., insulation, ventilation, choice of materials, green or pale coloured/reflective roofs) of construction trailers to decrease indoor air temperature, as well as power demand from cooling during hot days. • Use white "cooling" boxes for outdoor electrical equipment (e.g., on the roof tops) to prevent overheating of power and heating equipment.	• Enforce breaks for workers during the construction, provide protective equipment and air conditions in camps, and implement flexible work schedules during heat waves.
CLIMATE-02	• Extreme (high) Temperature and Heat Wave – People	• Extreme temperature and heat waves can cause various health impacts, including skin rash, heatstroke, fainting, exhaustion, muscle cramps, dehydration, and edema. • Extreme temperatures and heat waves can affect vulnerable people in greater proportions and intensity.	• Construction	• Ministry of Labour, Immigration, Training and Skills Development • Health Canada	• Provide designated cool, shaded, or air-conditioned areas for workers in order to limit their exposure to extreme temperatures and heat.	• Limit the exposure of workers to extreme temperatures and heat waves by modifying physically demanding work schedules during periods of increased temperature, humidity, or insulation.

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CLIMATE-03	• Extreme (high) Temperature and Heat Wave – People	• Extreme temperature and heat waves can cause various health impacts, including skin rash, heatstroke, fainting, exhaustion, muscle cramps, dehydration, and edema. • Extreme temperatures and heat waves can affect vulnerable people in greater proportions and intensity.	• Construction • Operations	• Ministry of Labour, Immigration, Training and Skills Development • Health Canada • Ministry of Emergency Preparedness and Response	• Not applicable	• Implement an alert protocol designed to identify and communicate hot weather and heat wave conditions that could impact the well-being of community members, visitors, and workers. • Communicate the health risks of extreme heat events with the public, as recommended by Health Canada (2011). For example, share heat wave warnings and health safety tips on display signs in construction camps and in community buildings.
CLIMATE-04	• Melting Degree Days – Culverts and bridges	• The increase in melting degree days can increase the amount of runoff water that converges in culverts.	• Construction	• Ministry of Transportation	• Not applicable	• Schedule inspections and maintenance of culverts to prevent the worsening of wear and tear following the winter season.
CLIMATE-05	• Melting Degree Days – People	• The increase in melting degree days can lead to an increase in snow and ice melt, which in turn can lead to the deterioration of road conditions and accidents.	• Construction • Operations	• Ministry of Transportation	• Not applicable	• Communicate the condition of the roadway with the public in order to encourage people to be careful when travelling. For example, sharing the location of the greatest damage in construction camps and in community buildings.
CLIMATE-06	• Extreme Daily Rainfall, Short-duration, high-intensity Rainfall (50-year event), and Multi-day Heavy Precipitation – Community Access Road	• Extreme rainfall can cause the erosion of the road surface and can create rills and gullies. • Road washouts are possible in areas where runoff or surface water congregates (i.e., culvert or bridge). Washouts may render the road impassable for an extended period. • Extreme rainfall may cause flooding. Road segments with culverts and bridges may be more vulnerable to flooding.	• Construction	• Ministry of Transportation	• Design drainage systems to cope with heavy rainfall with well defined overland flow routes. On larger fill sites with expansive grade slopes, confirm that erosion protection measures are employed (blanket to foster revegetation growth, synthetic ditch checks, straw wattle, and others) to slow down erosive forces. • Use non-moisture susceptible building materials so that work can continue during rain events (e.g., quarried rock, granular fill materials).	• Not applicable
CLIMATE-07	• Extreme Daily Rainfall, Short-duration, high-intensity Rainfall (50-year event), and Multi-day Heavy Precipitation – Community Access Road	• Extreme rainfall can cause the erosion of the road surface and can create rills and gullies. • Road washouts are possible in areas where runoff or surface water congregates (i.e., culvert or bridge). Washouts may render the road impassable for an extended period. • Extreme rainfall may cause flooding. Road segments with culverts and bridges may be more vulnerable to flooding.	• Operations	• Ministry of Transportation	• Not applicable	• Increase inspections and maintenance after extreme rainfall event to prevent the worsening of wear and tear of the road during heavy rainfall and flooding events. • Conduct frequent grading and maintenance of the road to fill potholes and maintain a crowned (4%) surface that can handle heavy rainfall more effectively.
CLIMATE-08	• Extreme Daily Rainfall, Short-duration, high-intensity	• Extreme precipitations can cause an accelerated deterioration of culverts by increasing the amount of runoff water that converges through them.	• Construction	• Ministry of Transportation	• Choose oversized culverts to take into account the increase in the recurrence of floods and extreme rainfall of about 172 mm (i.e., a 100-year rainfall event in 2071-2100).	• Not applicable

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	Rainfall (50-year event), and Multi-day Heavy Precipitation – Culverts and bridges	• Extreme precipitations can increase the scour rate of bridge foundations. • High volumes of water can overwhelm culverts and lead to failure and flooding.			• Raising the bridge deck will increase the hydraulic capacity of bridges, limiting damages sustained during flooding event.	
CLIMATE-09	• Extreme Daily Rainfall, Short-duration, high-intensity Rainfall (50-year event), and Multi-day Heavy Precipitation – Culverts and bridges	• Extreme precipitations can cause an accelerated deterioration of culverts by increasing the amount of runoff water that converges through them. • Extreme precipitations can increase the scour rate of bridge foundations. • High volumes of water can overwhelm culverts and lead to failure and flooding.	• Operations	• Ministry of Transportation	• Not applicable	• Proceed to scour monitoring to limit the extent of the damaged to bridges during a flood. • Increase inspections and maintenance of culverts to prevent the worsening of wear and tear during heavy rainfall and flooding events.
CLIMATE-10	• Extreme Daily Rainfall, Short-duration, high-intensity Rainfall (50-year event), and Multi-day Heavy Precipitation – Construction camps	• Extreme rainfall may result in premature deterioration of exterior building elements (e.g., windows, exterior doors) and the construction trailers due to water infiltration, resulting in increased inspections and maintenance costs. • Extreme rainfall can lead to water accumulation on flat roofs (ensuing drainage difficulties). • Extreme rainfall can cause delays in construction and maintenance work. • Extreme rainfall can cause the erosion of the hard surfaces and can cause flooding	• Operations	• Ministry of Labour, Immigration, Training and Skills Development • Health Canada	• Not applicable	• Increase inspections and maintenance of construction trailers and other installations to prevent the worsening of wear and tear during heavy rainfall and flooding events.
CLIMATE-11	• Extreme Daily Rainfall, Short-duration, high-intensity Rainfall (50-year event), and Multi-day Heavy Precipitation – Rest stops and road turnout	• Extreme rainfall can cause the erosion of the road turnout surface and can create rills and gullies. • Road washouts are possible in areas where runoff or surface water congregates (i.e., culvert or bridge). Washouts may render the road impassable for an extended period. • Extreme rainfall may cause flooding. Road turnouts near culverts and bridges may be more vulnerable to flooding.	• Construction	• Ministry of Transportation	• Design drainage systems to cope with heavy rainfall with well defined overland flow routes.	• Not applicable

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CLIMATE-12	• Extreme Daily Rainfall, Short-duration, high-intensity Rainfall (50-year event), and Multi-day Heavy Precipitation – Rest stops and road turnout	• Extreme rainfall can cause the erosion of the road turnout surface and can create rills and gullies. • Road washouts are possible in areas where runoff or surface water congregates (i.e., culvert or bridge). Washouts may render the road impassable for an extended period. • Extreme rainfall may cause flooding. Road turnouts near culverts and bridges may be more vulnerable to flooding.	• Operations	• Ministry of Transportation	• Not applicable	• Increase inspections and maintenance to prevent the worsening of wear and tear of the rest stops and road turnouts after heavy rainfall and flooding events.
CLIMATE-13	• Extreme Daily Rainfall, Short-duration, high-intensity Rainfall (50-year event), and Multi-day Heavy Precipitation – People	• Extreme rainfall can cause dangerous driving conditions by reducing visibility and traction. Road conditions can deteriorate quickly. • Extreme rainfall may cause flooding or flash floods. Floods can reduce road safety for users and may cause road closures. This can cause delays in the mobilization and arrival of first responders during emergency situations.	• Construction • Operations	• Ministry of Transportation • Ministry of Emergency Preparedness and Response	• Develop an Emergency Preparedness and Management Plan in the case of a heavy rainfall or flood event.	• Communicate the condition of the road with the public in order to encourage people to be careful when travelling. For example, share the location and status of floods or road washouts in construction camps and in community buildings. Include the road in the internet feed for road conditions reporting. • Implement an Emergency Preparedness and Management Plan in the case of a heavy rainfall or flood event.
CLIMATE-14	• Daily Snowfall (50-year event) – People	• Heavy snowfall can cause dangerous driving conditions which can lead to skidding and collisions. • Heavy snowfall can increase frequency and effort needed during snow removal operations. This can cause delays in the mobilization and arrival of first responders during emergency situations	• Construction • Operations	• Ministry of Transportation • Ministry of Emergency Preparedness and Response	• Develop an Emergency Preparedness and Management Plan in the case of a heavy snowfall event.	• Communicate the conditions of the roadway with the public in order to encourage people to be careful when travelling. For example, share the status of plowing operations in construction camps and in community buildings. • Implement an Emergency Preparedness and Management Plan in the case of a heavy snowfall event.
CLIMATE-15	• Wildfire – Community Access Road	• Wildfires can cause the closure of the road for safety reasons, preventing the road users from using it, causing delays in the mobilization and arrival of first responders, and disrupting supply chains. • Wildfires in surrounding areas can create dangerous driving conditions, such as reduced visibility from smoke and ash. Heat from wildfires can damage vehicles. • The road should not be damaged directly from wildfire flames and heat.	• Operations	• Ministry of Transportation • Ministry of Emergency Preparedness and Response	• Not applicable	• Conduct regular maintenance and inspection of the road and its cleared 60 m right-of-way to prevent the accumulation of flammable debris and improve safe travel. • Implement early warning systems to prepare for wildfire events and make informed decisions about road closures.

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CLIMATE-16	• Wildfire – Culverts and bridges	• The flames and heat generated by forest fires can damage Marten Falls Community Access Road components, including bridges and culverts. • Wildfires can cause accelerated deterioration of bridge materials, especially fire-vulnerable materials such as timber. Such damage may affect the structural integrity of a concrete structure.	• Construction	• Ministry of Transportation	• The use of timber in bridge structures is discouraged, and steel/concrete will be incorporated.	• Not applicable
CLIMATE-17	• Wildfire – Culverts and bridges	• The flames and heat generated by forest fires can damage Marten Falls Community Access Road components, including bridges and culverts. • Wildfires can cause accelerated deterioration of bridge materials, especially fire-vulnerable materials such as timber. Such damage may affect the structural integrity of a concrete structure.	• Operations	• Ministry of Transportation	• Not applicable	• Conduct regular maintenance and inspection of bridges to prevent the accumulation of flammable debris and improve safe travel. • Increase inspections and maintenance after wildfire events to prevent the worsening of wear and tear of bridges and culverts.
CLIMATE-18	• Wildfire – Construction camps	• Wildfires can cause major damages to construction camps and decrease air quality, resulting in operational impact. • Evacuation may be necessary. • If wildfires reach explosives storages, large explosions may occur.	• Construction	• Ministry of Transportation • Ministry of Natural Resources • Ministry of Labour, Immigration, Training and Skills Development • Health Canada	• Develop early warning systems to prepare for wildfire events and make informed decisions about construction camp closures.	• Remove ground litter and high ignition vegetation (e.g., dead, dying, dried and overmature trees) on a regular basis to limit the presence of fire fuel around construction camp infrastructure, especially near explosives storage. • Keep grasses near the construction camp infrastructure cut at less than 10 cm in height during the fire season. • Install an external unmanned sprinkler system and have sources of water available (especially near storage of explosive materials). • Implement early warning systems to prepare for wildfire events and make informed decisions about construction camp closures.
CLIMATE-19	• Wildfire – People	• The intense heat caused by nearby wildfires can affect the integrity of vehicles. • Wildfires can cause the closure of the road, causing delays in the mobilization and arrival of first responders. • Wildfire smoke can decrease air quality by increasing the amount of Particular Matter (PM) 2.5. Wildfire smoke can be carried for considerable distances and for an extended period	• Construction	• Ministry of Labour, Immigration, Training and Skills Development • Health Canada	• Not applicable	• Monitor air quality and limit the exposure of workers to smoke by modifying work schedules during wildfire season. Keep monitoring the following website for smoke intensity and forecasts (https://firesmoke.ca/forecasts/current/).

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		of time, depending on wind intensity and direction. • Decreased visibility due to wildfire smoke and debris on the road can cause dangerous driving conditions which can lead to accidents.				
CLIMATE-20	• Wildfire – People	• The intense heat caused by nearby wildfires can affect the integrity of vehicles. • Wildfires can cause the closure of the road, causing delays in the mobilization and arrival of first responders. • Wildfire smoke can decrease air quality by increasing the amount of Particular Matter (PM) 2.5. Wildfire smoke can be carried for considerable distances and for an extended period of time, depending on wind intensity and direction. • Decreased visibility due to wildfire smoke and debris on the road can cause dangerous driving conditions which can lead to accidents.	• Construction • Operations	• Ministry of Labour, Immigration, Training and Skills Development • Health Canada • Ministry of Emergency Preparedness and Response	• Develop an Emergency Preparedness and Management Plan in the case of a wildfire event	• Communicate the health risks of wildfires and wildfire smoke with the public. For example, share wildfire, road, and evacuation status on display signs in construction camps and in community buildings. • Implement an Emergency Preparedness and Management Plan in the case of a wildfire event
CLIMATE-21	• Thunderstorm – Community Access Road	• Thunderstorms, combined with heavy winds and/or precipitations, may cause flooding and soil erosion.	• Construction	• Ministry of Transportation	• Design drainage systems to cope with heavy rainfall with well defined overland flow routes	• Not applicable
CLIMATE-22	• Thunderstorm – Community Access Road	• Thunderstorms, combined with heavy winds and/or precipitations, may cause flooding and soil erosion.	• Operations	• Ministry of Transportation	• Not applicable	• Design drainage systems to cope with heavy rainfall with well defined overland flow routes • Conduct frequent grading and maintenance of the road to fill potholes and maintain a crowned (4%) surface that can handle heavy rainfall more effectively.
CLIMATE-23	• Thunderstorm – Culverts and bridges	• Thunderstorms, combined with heavy winds and/or heavy precipitations, can cause an accelerated deterioration of bridges. • High volumes of water can overwhelm culverts and lead to failure and flooding.	• Operations	• Ministry of Transportation	• Not applicable	• Increase inspections and maintenance of culverts to prevent the worsening of wear and tear during heavy rainfall and flooding events.
CLIMATE-24	• Thunderstorm – Illumination	• Dense clouds associated with thunderstorms can extend the duration of illumination of the roadway and therefore use up the battery charge. • Thunderstorms, including heavy precipitations, strong winds, lightning	• Operations	• Ministry of Transportation	• Not applicable	• Keep backup solar streetlights in stock in order to be able to replace quickly any damaged equipment after a thunderstorm.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detailed Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
		and/or hail, can damage solar streetlights.				
CLIMATE-25	• Thunderstorm – Construction Camps	• Thunderstorms, combined with heavy winds, heavy precipitations, lightning, and/or hail, can cause damage to construction site equipment. • Thunderstorms can cause delays in construction and maintenance work.	• Construction	• Ministry of Labour, Immigration, Training and Skills Development • Health Canada • Ministry of Emergency Preparedness and Response	• Develop an Emergency Preparedness and Management Plan in the case of a thunderstorm.	• Secure construction equipment and material in preparation of thunderstorms (heavy wind). • Communicate the health risks of thunderstorms with the public. For example, track and share status of thunderstorms on display signs in construction camps and in community buildings. Use the following website to confirm threat (https://weather.gc.ca/lightning/index_e.html). • Implement an Emergency Preparedness and Management Plan in the case of a thunderstorm.
CLIMATE-26	• Thunderstorm – Rest stops and road turnout	• Thunderstorms, combined with heavy winds and/or precipitations, may cause flooding and soil erosion.	• Construction	• Ministry of Transportation	• Design drainage systems to cope with heavy rainfall with well defined overland flow routes.	• Not applicable
CLIMATE-27	• Thunderstorm – Rest stops and road turnout	• Thunderstorms, combined with heavy winds and/or precipitations, may cause flooding and soil erosion.	• Operations	• Ministry of Transportation	• Not applicable	• Increase inspections and maintenance after a thunderstorm to prevent the worsening of wear and tear of the rest stops and road turnouts.
CLIMATE-28	• Thunderstorm – People	• Thunderstorms, including heavy winds, heavy rain and lightning, can cause dangerous driving conditions which can lead to accidents.	• Construction • Operations	• Ministry of Labour, Immigration, Training and Skills Development • Health Canada • Ministry of Emergency Preparedness and Response	• Not applicable	• Establish a storm warning system that alerts road users in advance so that they can plan their travel. • Establish and communicate guidelines on what to do in case of a thunderstorm to road users.

Table 4: Consultation Commitments

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
Consult - 01	• General	• Concerns regarding access and questions about the future management, operations, and maintenance of the Community Access Road.	• Operations and Maintenance	• Animbiigoo-Zaagi'igan Anishinaabek • Constance Lake First Nation • Marten Falls First Nation • Red Sky Métis Independent Nation	• Not applicable.	• Decisions on access will be the responsibility of the Owner / Operator of the Community Access Road and the Province.
Consult - 02	• Consultation / Field Work	• Request for participation in fieldwork conducted in Aroland First Nation traditional territory.	• Detail Design / Pre-Construction	• Aroland First Nation	• The MFFN CAR Project Team will continue to offer opportunities to participate in the field study programs and monitoring, when applicable.	• Not applicable.
Consult - 03	• Consultation	• Original concern from the Progress Report: Aroland First Nation noted in 2022 that the community had not consented to the Community Access Road being built on their territory. Correspondence with Marten Falls First Nation to hold a Nation-to-Nation meeting followed. In 2024, a closed-door meeting was held between the two nations, followed by further meetings and correspondence.	• Detail Design / Pre-Construction • Construction	• Aroland First Nation	• The MFFN CAR Project Team encourages ongoing Nation-to-Nation meetings to continue dialogue about southern portions of the Community Access Road.	• The Owner / Operator of the Community Access Road will continue dialogue with Aroland First Nation during construction.
Consult - 04	• Cultural Heritage and Archaeology	• Request to be included as partners in the Archaeological study conducted in Aroland First Nation's Traditional Territory.	• Detail Design / Pre-Construction	• Aroland First Nation	• If a Stage 3 Archaeological Assessment is required within Aroland First Nation territory, the MFFN CAR Project Team will invite Aroland First Nation on the Stage 3 Archaeology Assessment and share the report.	• Not applicable.
Consult - 05	• Aboriginal and/or Treaty Rights and Interests	• Interest expressed in submitting existing and archival data and / or Indigenous Knowledge.	• Detail Design / Pre-Construction	• Constance Lake First Nation • Long Lake #58 First Nation	• Efforts to receive and incorporate Indigenous Knowledge from interested Indigenous Communities will continue to be pursued during detail design.	• Not applicable.
Consult - 06	• Cultural Heritage and Archaeology	• Feedback on the Stage 1 Archaeology Assessment Report, expressing interest in collaborating to identify and assess archaeologically important areas.	• Detail Design / Pre-Construction	• Fort Albany First Nation	• Per the Response to Fort Albany First Nation's feedback on the Stage 1 Archaeology Assessment Report, the MFFN CAR Project Team will assess any areas of archaeological importance that are identified by Fort Albany First Nation in the Stage 2 Archaeological Assessment fieldwork.	• Not applicable.
Consult - 07	• Aboriginal and/or Treaty Rights and Interests • Cultural Heritage	• A request for a ceremony to be held before construction of the road begins.	• Construction	• Ginoogaming First Nation	• Not applicable.	• The request for a ceremony to be conducted prior to the start of construction will be considered by the Owner / Operator of the Community Access Road.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
Consult - 08	• Community Well-Being	• Assurances that employment and training opportunities for community members are accounted for in the Project contract.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Long Lake #58 First Nation • Marten Falls First Nation	• The Proponent of the Community Access Road will share information about future training and employment opportunities related to construction in detail design phase.	• The Owner / Operator of the Community Access Road will share information about future training and employment opportunities related to construction in detail design, construction and / or maintenance phases.
Consult - 09	• Community Well-Being	• Provision of aggregate resources available for Project use.	• Detail Design / Pre-Construction • Construction	• Long Lake #58 First Nation • Marten Falls First Nation	• The Proponent of the Community Access Road will continue conversations regarding potential aggregate supplies in the detail design phase.	• The Owner / Operator of the Community Access Road will continue conversations regarding potential aggregate supplies in the detail design, construction and / or operations phases.
Consult - 10	• Land and Resource Use • Community Well-Being	• Concerns about how construction camps will be managed and the potential environmental impacts.	• Construction	• Marten Falls First Nation	• Not applicable.	• The Owner / Operator of the Community Access Road will be responsible for construction related contracts. Environmental Protection Plans must be prepared by construction companies who are awarded work.
Consult - 11	• Cultural Heritage and Archaeology	• Métis Nation of Ontario of noted that the methodology for the Stage 1 and Stage 2 Archaeological Reports only included “First Nations” or “European”, when Métis should fall under its own category.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Métis Nation of Ontario	• The Proponent of the Community Access Road will follow-up with Métis Nation of Ontario in relation to archaeology studies and information, as well as the inclusion of Métis in future archaeological studies, as a commitment into detail design.	• The Owner / Operator of the Community Access Road will follow-up with Métis Nation of Ontario in relation to archaeology studies and information, as well as the inclusion of Métis in future archaeological studies, as a commitment into detail design, construction and / or maintenance.
Consult - 12	• Land and Resource Use	• Twin Lakes Outfitters expressed their concern about the river crossings that are close to their camps and the proposed worker camp site that are near them.	• Detail Design / Pre-Construction	• Twin Lakes Outfitters	• The Proponent of the Community Access Road will continue consultation with Twin Lakes Outfitters into the detail design phase related to river crossings and proximity to camps.	• Not applicable.
Consult - 13	• Land and Resource Use	• Inquiry as to who owns the logging rights to the wood that will be cut down (to clear the area for construction) and if there is an option for Marten Falls First Nation on-reserve membership to obtain the wood for heat.	• Detail Design / Pre-Construction • Construction	• Interested Person	• Consideration for the Proponent and Owner / Operator of the Community Access Road on how wood from clearing and grubbing operations (pre-construction) might be provided to Marten Falls First Nation for their use.	• Consideration for the Proponent and Owner / Operator of the Community Access Road on how wood from clearing and grubbing operations (pre-construction) might be provided to Marten Falls First Nation for their use.
Consult - 14	• Land and Resource Use	• Concerns raised about the potential impact of workers in the area accessing the river to fish.	• Construction	• Interested Person	• Not applicable.	• The Owner / Operator of the Community Access Road will be responsible for construction related contracts. Environmental Protection Plans must be prepared by construction companies who are awarded work and restrictions will be applied to workers at these camps.

Table 5: Commitments Resulting from Responses to Draft Environmental Assessment / Impact Statement Comments

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
843	• Engineering and Design (incl. Bridges and Culverts)	• Disruption of wildlife movement and habitat connectivity.	• Detail Design / Pre-Construction • Operations and Maintenance	• Indigenous Community	• During detail design, the Proponent of the Community Access Road will assess and incorporate wildlife crossing and terrestrial connectivity measures, where warranted, based on the micro-sited alignment and site-specific conditions. The effectiveness of implemented measures will be evaluated through post-construction monitoring, and adaptive management will be applied as appropriate.	• During detail design, the Proponent of the Community Access Road will assess and incorporate wildlife crossing and terrestrial connectivity measures, where warranted, based on the micro-sited alignment and site-specific conditions. The effectiveness of implemented measures will be evaluated through post-construction monitoring, and adaptive management will be applied as appropriate.
844	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Limited access to safe roadside rest areas and access points.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will determine the details of rest areas and access points in the detail design phase of the project in collaboration with Marten Falls First Nation and Aroland First Nation.	• Not applicable.
845	• Engineering and Design (incl. Bridges and Culverts)	• Barriers to fish, reptile, and wildlife movement across the roadway.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will design the roadway to accommodate fish and/or reptile passage, where feasible and consistent with site conditions. Where the roadway is identified as a significant obstruction to safe wildlife movement, the Proponent will consider the use of bridges or large culverts to facilitate wildlife passage.	• Not applicable.
848	• Engineering and Design (incl. Bridges and Culverts); • Physio, Terrain, Soils	• Road instability and settlement in challenging soil conditions.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will consider appropriate engineering measures during detail design to address settlement-related risks and will incorporate those measures into the construction plan.	• Not applicable.
849	• General	• Inadequate consideration of Indigenous values and perspectives in Project implementation.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Interested Persons	• The Proponent and Owner/Operator of the Community Access Road will continue dialogue with Indigenous communities and work to reflect Indigenous values, perspectives, and voices throughout project development and implementation.	• The Proponent and Owner/Operator of the Community Access Road will continue dialogue with Indigenous communities and work to reflect Indigenous values, perspectives, and voices throughout project development and implementation.
851	• Engineering and Design (incl. Bridges and Culverts)	• Reduced wildlife movement and habitat connectivity across the road corridor.	• Detail Design / Pre-Construction • Operations and Maintenance	• Indigenous Community	• The Proponent of the Community Access Road will determine wildlife crossing requirements during detail design based on the micro-sited route alignment, bridges, and other project features. The Owner/Operator of the Community Access Road will undertake post-construction monitoring to evaluate the effectiveness of wildlife crossings and inform future management measures.	• The Proponent of the Community Access Road will determine wildlife crossing requirements during detail design based on the micro-sited route alignment, bridges, and other project features. The Owner/Operator of the Community Access Road will undertake post-construction monitoring to evaluate the effectiveness of wildlife crossings and inform future management measures.
857	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Increased environmental disturbance from inappropriate construction equipment.	• Construction	• Indigenous Community	• Not applicable.	• The Owner/Operator of the Community Access Road will require the construction contractor to determine and use appropriate types of construction vehicles for construction of the Community Access Road.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
858	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Disturbance to watercourses and land from temporary access roads and crossings.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Owner/ Operator of the Community Access Road will construct temporary structures in the form of culverts and/or bridges at water crossings along temporary access roads to aggregate pits and construction camp sites. It is possible that temporary structures may also be required to facilitate the construction of the main bridges. These structures will be removed upon completion of the construction. • The Proponent of the Community Access Road will determine the decommissioning of all temporary roads during detail design. If an access road is to be decommissioned, temporary culverts are removed and the stream/ water crossing is brought back to natural condition. The access road footprint is generally left in place but made to be un-useable to discourage use.	• The Owner/ Operator of the Community Access Road will construct temporary structures in the form of culverts and/or bridges at water crossings along temporary access roads to aggregate pits and construction camp sites. It is possible that temporary structures may also be required to facilitate the construction of the main bridges. These structures will be removed upon completion of the construction. • The Proponent of the Community Access Road will determine the decommissioning of all temporary roads during detail design. If an access road is to be decommissioned, temporary culverts are removed and the stream/ water crossing is brought back to natural condition. The access road footprint is generally left in place but made to be un-useable to discourage use.
859	• Fish and Fish Habitat	• Potential impacts to newly identified fish habitat and waterbodies.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will have newly identified waterbodies assessed by a qualified Aquatics Specialist prior to construction and will implement recommended mitigation, enhancement, and permitting requirements, including consultation with local First Nation communities and applicable regulatory agencies, where required.	• Not applicable.
861	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Contamination of land and water from wastewater generated at construction camps.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent of the Community Access Road will determine the method of domestic sewage disposal at temporary construction camps during detail design. If required and when feasible, domestic wastewater will be removed by approved disposal trucks and disposed of at wastewater treatment plants with the authorization and capacity to accept this wastewater.	• The Proponent of the Community Access Road will determine the method of domestic sewage disposal at temporary construction camps during detail design. If required and when feasible, domestic wastewater will be removed by approved disposal trucks and disposed of at wastewater treatment plants with the authorization and capacity to accept this wastewater.
863	• Provincial Process	• Introduction and spread of invasive plant species.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent and Owner/Operator of the Community Access Road will develop and implement a project-specific Environmental Protection Plan during detail design and construction that includes measures to prevent, detect, control, and monitor invasive plant species.	• The Proponent and Owner/Operator of the Community Access Road will develop and implement a project-specific Environmental Protection Plan during detail design and construction that includes measures to prevent, detect, control, and monitor invasive plant species.
864	• Ungulates	• Barriers to caribou, moose, and other wildlife movement.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will consider features during detail design for accommodating wildlife-friendly crossings. Decisions about mitigations (including whether wildlife over and under passes could be constructed, and if so, where) will take into account best practices from Ministry of Transportation, current understanding of caribou and moose movement relative to the road alignment, recommendations received from comments on the draft EA/IS, and feasibility/constructability based on environmental conditions.	• Not applicable.
865	• Physio, Terrain, Soils	• Deterioration of water quality from sedimentation and mercury mobilization.	• Construction	• Indigenous Community	• Not applicable.	• The Owner/ Operator of the Community Access Road will conduct a monitoring program during construction that includes monitoring of water quality parameters of concern, as required, to satisfy the conditions and/or requirements of applicable permits and approvals, and to confirm the effectiveness mitigation and enhancement measures. This will include monitoring of mercury either directly or using suspended solids as a proxy indicator.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
869	• Climate Change	• Loss of peatland functions, hydrological connectivity, and carbon storage.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent of the Community Access Road will determine the specific approach to the Biodiversity Offset Plan through consultation with Environment and Climate Change Canada, the Ministry of the Environment, Conservation and Parks, and the Ministry of Natural Resources, but will generally follow a hierarchy of restoration, reclamation and offset alternatives. • The Owner/Operator of the Community Access Road will implement measures to minimize peatland disturbance and maintain hydrological connectivity and will develop peatland restoration, reclamation, and biodiversity offset measures, to the extent feasible, in consultation with applicable regulatory agencies.	• The Proponent of the Community Access Road will determine the specific approach to the Biodiversity Offset Plan through consultation with Environment and Climate Change Canada, the Ministry of the Environment, Conservation and Parks, and the Ministry of Natural Resources, but will generally follow a hierarchy of restoration, reclamation and offset alternatives. • The Owner/Operator of the Community Access Road will implement measures to minimize peatland disturbance and maintain hydrological connectivity and will develop peatland restoration, reclamation, and biodiversity offset measures, to the extent feasible, in consultation with applicable regulatory agencies.
870	• Ungulates • Fish and Fish Habitat	• Adverse effects on fish habitat, wildlife habitat, and Indigenous harvesting resources.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent and Owner/Operator of the Community Access Road will design and construct the Community Access Road in a manner that minimizes adverse effects on fish, fish habitat, and wildlife, including moose, by implementing applicable mitigation measures, best management practices, and regulatory approval conditions; maintaining natural channel function and downstream flows at watercourse crossings; avoiding sensitive habitats where feasible; conducting in-water works outside applicable restricted activity timing windows; implementing, monitoring, and maintaining erosion and sediment control measures to prevent sediment release to waterbodies; implementing measures to prevent the introduction and spread of invasive species; and considering potential effects of increased Project access on wildlife, including increased harvest pressure on moose identified by Indigenous communities.	• The Proponent and Owner/Operator of the Community Access Road will design and construct the Community Access Road in a manner that minimizes adverse effects on fish, fish habitat, and wildlife, including moose, by implementing applicable mitigation measures, best management practices, and regulatory approval conditions; maintaining natural channel function and downstream flows at watercourse crossings; avoiding sensitive habitats where feasible; conducting in-water works outside applicable restricted activity timing windows; implementing, monitoring, and maintaining erosion and sediment control measures to prevent sediment release to waterbodies; implementing measures to prevent the introduction and spread of invasive species; and considering potential effects of increased Project access on wildlife, including increased harvest pressure on moose identified by Indigenous communities.
871	• Economy	• Loss of vegetation, habitat quality, and ecological function in disturbed areas, and potential adverse effects on local businesses resulting from Project activities.	• Construction • Operations and Maintenance	• Indigenous Community	• Not applicable.	• The Owner/Operator of the Community Access Road will rehabilitate disturbed areas adjacent to the Community Access Road be following construction to reflect surrounding natural conditions. • The Owner/Operator of the Community Access Road will implement habitat enhancements adjacent to the Community Access Road as part of site rehabilitation activities. • If a business alleges loss of revenue attributable to the Community Access Road, the Owner/Operator will work with the business owner to investigate the alleged losses.
873	• Fish and Fish Habitat • Indigenous Knowledge and Land Use • Operations and Maintenance (incl. post-construction monitoring) • Physio, Terrain, Soils	• Deterioration of water quality and potential mercury-related effects.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Owner/Operator of the Community Access Road will implement a construction-phase water quality monitoring program, as required by applicable permits and approvals, to monitor water quality parameters of concern and verify the effectiveness of mitigation and enhancement measures, including monitoring mercury directly or through suspended solids as a proxy indicator where appropriate, and will continue to consider Indigenous Knowledge during the detail design phase.	• The Owner/Operator of the Community Access Road will implement a construction-phase water quality monitoring program, as required by applicable permits and approvals, to monitor water quality parameters of concern and verify the effectiveness of mitigation and enhancement measures, including monitoring mercury directly or through suspended solids as a proxy indicator where appropriate, and will continue to consider Indigenous Knowledge during the detail design phase.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
874	• Fish and Fish Habitat	• Impacts to fish passage, aquatic connectivity, and fish habitat function.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent and Owner/Operator of the Community Access Road will complete site-specific fish and fish habitat assessments, surface water surveys, hydraulic modelling, and detail design for waterbody crossings; design and install culverts and other crossing structures in fish-bearing waterbodies to maintain fish passage in accordance with Fisheries and Oceans Canada guidance and applicable regulatory requirements; submit crossing designs as required to support Fisheries and Oceans Canada and Ministry of Natural Resources permitting; and inspect, maintain, and operate waterbody crossings in accordance with applicable best management practices, codes of practice, environmental approval conditions, and regulatory guidelines to prevent blockages and maintain fish habitat connectivity and function.	• The Proponent and Owner/Operator of the Community Access Road will complete site-specific fish and fish habitat assessments, surface water surveys, hydraulic modelling, and detail design for waterbody crossings; design and install culverts and other crossing structures in fish-bearing waterbodies to maintain fish passage in accordance with Fisheries and Oceans Canada guidance and applicable regulatory requirements; submit crossing designs as required to support Fisheries and Oceans Canada and Ministry of Natural Resources permitting; and inspect, maintain, and operate waterbody crossings in accordance with applicable best management practices, codes of practice, environmental approval conditions, and regulatory guidelines to prevent blockages and maintain fish habitat connectivity and function.
877	• Peatlands • Future Indigenous Involvement	• Peatland degradation, carbon release, and altered hydrology.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent of the Community Access Road will complete additional peatland investigations during detail design, including a groundwater monitoring program and water budget study, to improve understanding of peatland hydrology and hydrogeology and to support design refinement. • The Proponent and Owner/Operator of the Community Access Road will continue to engage and consult with Indigenous communities throughout detail design and will consider available Indigenous Knowledge in the identification and protection of sensitive peatland areas. • The Proponent of the Community Access Road will implement a peatland monitoring program that includes science-based thresholds and indicators of peatland degradation based on established standards and research. • The Proponent of the Community Access Road will develop and implement mitigation and adaptive response measures where monitoring identifies conditions that may result in peatland degradation, long-term damage, or carbon release.	• The Proponent of the Community Access Road will complete additional peatland investigations during detail design, including a groundwater monitoring program and water budget study, to improve understanding of peatland hydrology and hydrogeology and to support design refinement. • The Proponent and Owner/Operator of the Community Access Road will continue to engage and consult with Indigenous communities throughout detail design and will consider available Indigenous Knowledge in the identification and protection of sensitive peatland areas. • The Proponent of the Community Access Road will implement a peatland monitoring program that includes science-based thresholds and indicators of peatland degradation based on established standards and research. • The Proponent of the Community Access Road will develop and implement mitigation and adaptive response measures where monitoring identifies conditions that may result in peatland degradation, long-term damage, or carbon release.
886	• Request for Regulators	• Limited Indigenous participation in Project design.	• Detail Design / Pre-Construction	• Indigenous Community	• During the detail design phase, the Proponent of the Community Access Road will define and implement engagement processes to enable appropriate Indigenous community participation and representation in the design process.	• Not applicable.
891	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Contamination from improper domestic wastewater management.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Indigenous Community	• The Proponent of the Community Access Road will determine the domestic wastewater management system for temporary construction camps during detail design. The Owner/Operator of the Community Access Road will manage domestic wastewater in accordance with applicable legislation, best practices, guidelines, approvals, and permits, and will decommission construction camps and associated domestic wastewater systems following completion of construction activities.	• The Proponent of the Community Access Road will determine the domestic wastewater management system for temporary construction camps during detail design. The Owner/Operator of the Community Access Road will manage domestic wastewater in accordance with applicable legislation, best practices, guidelines, approvals, and permits, and will decommission construction camps and associated domestic wastewater systems following completion of construction activities.
893	• Physio, Terrain, Soils	• Increased sedimentation and turbidity in watercourses.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Owner/ Operator of the Community Access Road will monitor turbidity and suspended solids (sedimentation) according to the requirements of the anticipated Fisheries and Oceans Canada (DFO) and Ministry of Natural Resources (MNR) permits to determine if sediment control measures are effective. The monitoring will follow the Canadian Council of Ministers of the Environment's Canadian Water Quality Guidelines for the Protection of Aquatic Life (CCME, 1999). Turbidity will be measured using a water quality meter and samples will be collected for laboratory analysis of total suspended solids and are expected to	• The Owner/ Operator of the Community Access Road will monitor turbidity and suspended solids (sedimentation) according to the requirements of the anticipated Fisheries and Oceans Canada (DFO) and Ministry of Natural Resources (MNR) permits to determine if sediment control measures are effective. The monitoring will follow the Canadian Council of Ministers of the Environment's Canadian Water Quality Guidelines for the Protection of Aquatic Life (CCME, 1999). Turbidity will be measured using a water quality meter and samples will be collected for laboratory analysis of total suspended solids and are expected to

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
					be requirements of the anticipated DFO and MNR permits. Timing of monitoring and baseline characterization will be determined during monitoring plan development during the detail design and permitting phase of the project.	be requirements of the anticipated DFO and MNR permits. Timing of monitoring and baseline characterization will be determined during monitoring plan development during the detail design and permitting phase of the project.
897	• Future Indigenous Involvement • Physio, Terrain, Soils	• Erosion and sediment release affecting soils and water quality.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent and Owner/Operator of the Community Access Road will develop and implement the Erosion and Sediment Control Plan. The Erosion and Sediment Control Plan will be shared with Animbiigoo-Zaagi'igan Anishinaabek First Nation.	• The Proponent and Owner/Operator of the Community Access Road will develop and implement the Erosion and Sediment Control Plan. The Erosion and Sediment Control Plan will be shared with Animbiigoo-Zaagi'igan Anishinaabek First Nation.
899	• Engineering and Design (incl. Bridges and Culverts) • Physio, Terrain, Soils	• Erosion, sedimentation, and instability at watercourse crossings.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop an Erosion and Sediment Control Plan during detail design and will include site-specific plans for all watercourse crossings to address setback distances, ice-damming and erosion.	• Not applicable.
901	• Fish and Fish Habitat	• Introduction and spread of aquatic invasive species.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop protocols for the prevention of aquatic invasive species introduction and spread during construction and include those protocols in the Project-specific Environmental Protection Plan. • The Owner/Operator of the Community Access Road will implement applicable best management practices and regulatory requirements to reduce the spread of invasive species and will share the Environmental Protection Plan with Animbiigoo-Zaagi'igan Anishinaabek First Nation.	• The Proponent of the Community Access Road will develop protocols for the prevention of aquatic invasive species introduction and spread during construction and include those protocols in the Project-specific Environmental Protection Plan. • The Owner/Operator of the Community Access Road will implement applicable best management practices and regulatory requirements to reduce the spread of invasive species and will share the Environmental Protection Plan with Animbiigoo-Zaagi'igan Anishinaabek First Nation.
903	• Physio, Terrain, Soils	• Sediment mobilization into sensitive waterbodies.	• Detail Design / Pre-Construction	• Indigenous Community	• During detail design, the Proponent of the Community Access Road will consider increasing the riparian buffer around certain waterbodies with a high slope if it is determined to be suitable or necessary to protect the waterbody from sediment mobilization.	• Not applicable.
905	• Access and Security	• Road safety risks associated with wildlife, erosion, and remote conditions.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will consider items noted by Aroland First Nation including that the road is in a remote setting, wildlife corridors, soil conditions and erosion during the detail design phase.	• Not applicable.
906	• Future Indigenous Involvement • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Excess material requirements and limited Indigenous involvement in Project planning.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will seek to achieve a material cut/fill balance at the project level and will consider material balances throughout the phased project length during preliminary and detail design. • The Proponent of the Community Access Road will continue engagement with Indigenous communities, including Aroland First Nation, as the Community Access Road progresses to subsequent project phases.	• Not applicable.
907	• Engineering and Design (incl. Bridges and Culverts)	• Alteration of natural watercourse function and fish passage.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will complete culvert design during the preliminary and detail design phases and will include culvert designs in permit applications submitted to Fisheries and Oceans Canada and the Ministry of Natural Resources. The Proponent will consider the use of open-bottom box culverts at watercourse crossings where required to maintain natural flow and substrate conditions.	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
908	• Acoustic Environment (Noise and Vibration) • Future Indigenous Involvement	• Construction and operational noise and vibration effects on receptors.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent and Owner/Operator of the Community Access Road will develop and implement noise and vibration monitoring programs and will share the monitoring programs with Aroland First Nation as they are further developed.	• The Proponent and Owner/Operator of the Community Access Road will develop and implement noise and vibration monitoring programs and will share the monitoring programs with Aroland First Nation as they are further developed.
909	• Physio, Terrain, Soils	• Acid rock drainage and metal leaching from exposed soils and bedrock.	• Construction	• Indigenous Community	• Not applicable.	• The Owner/Operator of the Community Access Road will implement a geochemical monitoring program during construction, including testing of exposed bedrock and soils to confirm the potential for acid rock drainage and metal leaching. If monitoring identifies potential for acid generation and/or metal leaching, the Owner/Operator will implement additional mitigation measures, with a focus on avoiding disturbance of the affected material.
913	• Access and Security	• Reduced roadway safety due to limited sight distance.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent of the Community Access Road will design the road with tangent approaches to bridge structures extending a minimum of 150 m in each direction, where feasible, to provide adequate sight distance. • Where standard sight distance requirements cannot be achieved, the Owner/Operator of the Community Access Road will install advisory speed signage to warn road users of reduced operating conditions.	• The Proponent of the Community Access Road will design the road with tangent approaches to bridge structures extending a minimum of 150 m in each direction, where feasible, to provide adequate sight distance. • Where standard sight distance requirements cannot be achieved, the Owner/Operator of the Community Access Road will install advisory speed signage to warn road users of reduced operating conditions.
919	• Fish and Fish Habitat	• Disturbance to fish habitat from in-water construction activities.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will refine detailed, site-specific durations for in-water works at individual watercourse crossings during the next phase of the Community Access Road.	• Not applicable.
920	• Fish and Fish Habitat	• Disturbance or loss of sensitive fish habitat features.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will consider sensitive habitat features identified through fish and fish habitat surveys in the siting of final watercourse crossing locations and the design of crossing structures during detail design, where feasible.	• Not applicable.
921	• Fish and Fish Habitat	• Erosion and contamination near wetlands and watercourses.	• Construction	• Indigenous Community	• Not applicable.	• The Owner/Operator of the Community Access Road will not use herbicides for vegetation removal and will use manual vegetation clearing within 10 m of watercourses and wetlands to minimize erosion.
925	• Groundwater	• Environmental effects from dust suppression activities.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will review Environment Canada best management practices during planning for dust control measures and will seek to minimize potential environmental impacts.	• Not applicable.
927	• Future Indigenous Involvement • Ungulates	• Disturbance to moose and other ungulate populations.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop an Ungulates Management and Monitoring Plan as part of the Environmental Protection Plan. Mitigation and monitoring recommendations provided by First Nations during the EA/IS review process will be considered for inclusion in the Plan.	• Not applicable.
928	• Ungulates	• Loss and fragmentation of caribou habitat.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent and Owner/Operator of the Community Access Road will finalize and implement a Biodiversity Offset Plan for functional caribou habitat loss during detail design, including habitat restoration, enhancement and/or long-term habitat protection measures, and will undertake long-term monitoring to evaluate the effectiveness of the offsetting measures and inform adaptive management, as required.	• The Proponent and Owner/Operator of the Community Access Road will finalize and implement a Biodiversity Offset Plan for functional caribou habitat loss during detail design, including habitat restoration, enhancement and/or long-term habitat protection measures, and will undertake long-term monitoring to evaluate the effectiveness of the offsetting measures and inform adaptive management, as required.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
933	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring) • Future Indigenous Involvement	• Effects on previously unidentified waterbodies and aquatic habitats.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Owner/Operator of the Community Access Road will suspend construction activities within 30 m of any previously unidentified waterbody encountered during construction until the feature has been assessed by a qualified Aquatic Specialist and appropriate mitigation measures have been determined, including consultation with Fisheries and Oceans Canada and/or the Ministry of Natural Resources, where required. • The Proponent and Owner/Operator of the Community Access Road will develop and implement a project-specific Environmental Protection Plan during the detail design and permitting phases that includes site-specific mitigation measures, including waterbody and watercourse setback requirements. • The Proponent of the Community Access Road will evaluate site-specific conditions during detail design and establish enhanced riparian setbacks, where appropriate, to protect waterbodies from potential effects such as sediment mobilization. • The Proponent of the Community Access Road will share the Environmental Protection Plan with Aroland First Nation.	• The Owner/Operator of the Community Access Road will suspend construction activities within 30 m of any previously unidentified waterbody encountered during construction until the feature has been assessed by a qualified Aquatic Specialist and appropriate mitigation measures have been determined, including consultation with Fisheries and Oceans Canada and/or the Ministry of Natural Resources, where required. • The Proponent and Owner/Operator of the Community Access Road will develop and implement a project-specific Environmental Protection Plan during the detail design and permitting phases that includes site-specific mitigation measures, including waterbody and watercourse setback requirements. • The Proponent of the Community Access Road will evaluate site-specific conditions during detail design and establish enhanced riparian setbacks, where appropriate, to protect waterbodies from potential effects such as sediment mobilization. • The Proponent of the Community Access Road will share the Environmental Protection Plan with Aroland First Nation.
935	• Education, Training and Employment • Fish and Fish Habitat	• Increased hunting, fishing, and trapping pressure by Project personnel.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent and the Owner/Operator of the Community Access Road will develop and implement a policy for non-Indigenous Project personnel regarding hunting, fishing, and trapping activities while on shift or residing at temporary construction camps.	• The Proponent and the Owner/Operator of the Community Access Road will develop and implement a policy for non-Indigenous Project personnel regarding hunting, fishing, and trapping activities while on shift or residing at temporary construction camps.
940	• Climate Change • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Excessive artificial lighting affecting wildlife and the nighttime environment.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent of the Community Access Road will examine illumination throughout the Community Access Road for the operations phase, during detail design. During the construction phase the Owner/ Operator of the Community Access Road will restrict illumination to construction sites.	• The Proponent of the Community Access Road will examine illumination throughout the Community Access Road for the operations phase, during detail design. During the construction phase the Owner/ Operator of the Community Access Road will restrict illumination to construction sites.
941	• Operations and Maintenance (incl. post-construction monitoring)	• Traffic safety risks during road operation.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will design and sign the Community Access Road in accordance with Provincial Highway Standards and will incorporate applicable safety and traffic management requirements into the design, construction, and operation of the Community Access Road, regardless of final ownership.	• Not applicable.
945	• Fish and Fish Habitat	• Undetected fish habitat impacts at previously unassessed crossings.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will conduct pre-construction fish and fish habitat surveys for any previously unassessed waterbody where Project activities are proposed below the high-water mark, with survey timing and methods sufficient to satisfy DFO and MNR permitting requirements.	• Not applicable.
950	• Physio, Terrain, Soils • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Permafrost degradation and associated road instability.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will have the Permafrost Management Plan reviewed, informed, and verified by qualified professionals.	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
951	• Ungulates	• Insufficient understanding of Project effects on caribou populations.	• Detail Design / Pre-Construction	• Indigenous Community	• During the permitting phase, the Proponent of the Community Access Road will work with Indigenous communities, including Weenusk First Nation, and applicable regulators to establish requirements for ongoing caribou monitoring during construction and operations of the Community Access Road.	• Not applicable.
956	• Access and Security • Ungulates • Future Indigenous Involvement	• Increased moose harvest pressure and moose-vehicle collisions.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent and Owner/Operator of the Community Access Road will develop, implement, and share a Moose Access and Monitoring Plan with Animbiigoo-Zaagi'igan Anishinaabek First Nation that includes long-term monitoring of moose presence, population trends, hunting pressure, moose habitat use, access management measures, high-risk moose collision zones, and moose-vehicle collisions. The Plan will incorporate monitoring programs and adaptive management triggers developed in collaboration with Indigenous communities and the Ministry of Natural Resources.	• The Proponent and Owner/Operator of the Community Access Road will develop, implement, and share a Moose Access and Monitoring Plan with Animbiigoo-Zaagi'igan Anishinaabek First Nation that includes long-term monitoring of moose presence, population trends, hunting pressure, moose habitat use, access management measures, high-risk moose collision zones, and moose-vehicle collisions. The Plan will incorporate monitoring programs and adaptive management triggers developed in collaboration with Indigenous communities and the Ministry of Natural Resources.
958	• Future Indigenous Involvement • Vegetation	• Loss of vegetation communities and biodiversity.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop a Preliminary Biodiversity Offset Plan to be finalized during detail design.	• Not applicable.
959	• Surface Water	• Surface water quality effects from dust control activities.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will review best management practices recommended by Environment Canada as part of planning for dust control measures during detail design.	• Not applicable.
960	• Future Indigenous Involvement • Economy	• Limited Indigenous awareness of environmental management measures.	• Detail Design / Pre-Construction	• Indigenous Community	• The Owner/ Operator of the Community Access Road will share the Environmental Protection Plan with Animbiigoo-Zaagi'igan Anishinaabek.	• Not applicable.
964	• Atmospheric Environment	• Air quality degradation from dust emissions.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will review best management practices recommended by Environment Canada as part of planning for dust control measures, during the detail design phase.	• Not applicable.
965	• Ungulates	• Erosion and sedimentation from exposed disturbed soils.	• Construction	• Indigenous Community	• Not applicable.	• The Owner/Operator of the Community Access Road will complete stabilization of disturbed earth surfaces within 20 calendar days of disturbance. Where final stabilization measures cannot be applied due to timing or seasonal constraints, the Owner/Operator will implement appropriate interim measures to provide temporary protection until final cover can be applied.
966	• Future Indigenous Involvement • Indigenous Knowledge and Land Use • Peatlands	• Limited sharing of Project information and environmental management measures with Indigenous communities.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will provide Aroland First Nation with available preliminary design information, including the general locations of tie-ins and ancillary infrastructure associated with the Community Access Road, as such information becomes available during project development. • The Proponent will share Community Access Road environmental management plans developed by the owner/operator with Aroland First Nation following their development and as updates become available.	• Not applicable.

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969	• Vegetation • Future Indigenous Involvement	• Limited Indigenous access to vegetation management and restoration planning.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will share the Vegetation Restoration Plan, Vegetation Management Plan, and Environmental Protection Plan with Aroland First Nation.	• Not applicable.
972	• Groundwater	• Potential contamination of groundwater resources.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will retain a Qualified Person to conduct groundwater monitoring. The Qualified Person will select contaminants of concern for monitoring in accordance with applicable permitting requirements, standards, and regulations, and will consider Indigenous Knowledge and stakeholder input in the development and implementation of the groundwater monitoring program.	• Not applicable.
974	• General	• Commitments may not fully reflect site-specific conditions and Indigenous priorities.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will refine and clarify project commitments during the detail design phase based on site-specific conditions and technical constraints, and will work collaboratively with Indigenous communities to incorporate shared priorities into the final design.	• Not applicable.
976	• Ungulates	• Loss and disturbance of caribou habitat.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will refine the construction footprint during the detail design phase and identify opportunities to minimize impacts to caribou habitat.	• Not applicable.
977	• Future Indigenous Involvement • Vegetation	• Residual impacts to terrestrial biodiversity and habitat.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will finalize the Preliminary Terrestrial Biodiversity Offset Plan during detail design and share it with Aroland First Nation.	• Not applicable.
978	• Provincial Process	• Uncertainty regarding regulatory processes and requirements.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will continue to engage with Indigenous communities regarding the Community Access Road and will provide updates on the regulatory process once guidance is received from the provincial government regarding the implications of Bill 5 for the Project.	• Not applicable.
979	• Vegetation • Atmospheric Environment • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Disturbance of traditional harvesting areas and contamination of traditional food resources.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Owner/Operator of the Community Access Road will establish and maintain a working group with Marten Falls First Nation, Aroland First Nation, and other affected Indigenous communities to discuss Community Access Road construction activities and related concerns. • The Owner/Operator of the Community Access Road will work with Indigenous communities to identify key harvesting areas and implement measures to minimize construction-related disturbances and potential contamination of traditional food resources during harvesting seasons. • The Proponent of the Community Access Road will evaluate and select appropriate dust suppressant options prior to construction.	• Not applicable.

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983	• Future Indigenous Involvement • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Construction activities occurring during sensitive environmental periods.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent of the Community Access Road will prepare a construction schedule and include mapping of sensitive features within the Environmental Protection Plan for consideration during construction. • The Proponent of the Community Access Road will share the construction schedule with Aroland First Nation and will meet applicable regulatory and consultation obligations associated with sensitive timing windows.	• The Proponent of the Community Access Road will prepare a construction schedule and include mapping of sensitive features within the Environmental Protection Plan for consideration during construction. • The Proponent of the Community Access Road will share the construction schedule with Aroland First Nation and will meet applicable regulatory and consultation obligations associated with sensitive timing windows.
984	• Future Indigenous Involvement • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Loss of vegetation resources and unusable timber.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop plans for brush disposal during future phases of the Project and will discuss opportunities to provide unusable timber to Aroland First Nation during the development of those plans.	• Not applicable.
985	• General	• Loss of continuity in implementation of Project commitments.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will continue consultation with Indigenous communities and will provide documented Environmental Assessment/Impact Assessment commitments to the future owner/operator of the Community Access Road to support their implementation following any ownership transition.	• Not applicable.
989	• Physio, Terrain, Soils	• Permafrost degradation and related environmental effects.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will share the Permafrost Management Plan with Kashechewan First Nation.	• Not applicable.
991	• Wildlife • Future Indigenous Involvement	• Disturbance of nesting birds and breeding habitat.	• Construction	• Indigenous Community	• Not applicable.	• The Owner/Operator of the Community Access Road will require staff and contractors conducting nest sweeps to demonstrate proficiency and experience in conducting bird surveys and nest sweep surveys. • The Owner/Operator of the Community Access Road will implement a nest sweep protocol that includes species identification, where possible, to support the application of species-specific protective buffers around active nests.
992	• Future Indigenous Involvement • Vegetation • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Loss of medicinal plants and culturally important vegetation.	• Detail Design / Pre-Construction	• Indigenous Community	• Should the Community Access Road EA/IS be approved to proceed, the Proponent will establish a consultation and engagement program to guide discussions regarding opportunities to salvage medicinal plants or other plant species of importance in the construction disturbance area during detail design.	• Not applicable.

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995	• Future Indigenous Involvement • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Effects of blasting on watercourses and aquatic habitats.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will prepare a Blasting and Communication Management Plan in accordance with Ontario Provincial Standard Specification (OPSS.PROV 120) that describes measures to be implemented when blasting is required in proximity to watercourses. The Proponent will share the Blasting and Communication Management Plan with Kashechewan First Nation.	• Not applicable.
996	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Water contamination from wastewater generated during construction.	• Construction	• Indigenous Community	• Not applicable.	• The Owner/Operator of the Community Access Road will manage domestic wastewater in accordance with applicable regulatory requirements and will decommission construction camps and associated domestic wastewater systems following construction.
998	• Surface Water	• Unexpected changes in water quality.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will share the Adaptive Management Plan related to unexpected changes to water quality for the Community Access Road, once developed, with Kashechewan First Nation.	• Not applicable.
1000	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Disturbance of sensitive fish habitat during crossing design and construction.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent of the Community Access Road will conduct site-specific ground-based fish and fish habitat surveys at all waterbody crossings where in-water work below the high-water mark is anticipated, to support Fisheries and Oceans Canada and Ministry of Natural Resources permitting requirements. • The Proponent of the Community Access Road will conduct additional fish and fish habitat field surveys during the subsequent phase of the Project to support permitting requirements. • The Proponent of the Community Access Road will identify sensitive fish habitat features, including spawning areas and groundwater upwellings, through site-specific field investigations. • The Proponent of the Community Access Road will use the results of fish and fish habitat surveys to inform the siting of final waterbody crossing locations and the design of crossing structures. • The Proponent of the Community Access Road will apply an avoidance-first approach, where feasible, when siting waterbody crossings and designing structures in areas containing sensitive fish habitat features. • The Proponent of the Community Access Road will complete fish and fish habitat investigations and incorporate survey findings into final crossing siting and design prior to construction and in accordance with applicable regulatory requirements.	• The Proponent of the Community Access Road will conduct site-specific ground-based fish and fish habitat surveys at all waterbody crossings where in-water work below the high-water mark is anticipated, to support Fisheries and Oceans Canada and Ministry of Natural Resources permitting requirements. • The Proponent of the Community Access Road will conduct additional fish and fish habitat field surveys during the subsequent phase of the Project to support permitting requirements. • The Proponent of the Community Access Road will identify sensitive fish habitat features, including spawning areas and groundwater upwellings, through site-specific field investigations. • The Proponent of the Community Access Road will use the results of fish and fish habitat surveys to inform the siting of final waterbody crossing locations and the design of crossing structures. • The Proponent of the Community Access Road will apply an avoidance-first approach, where feasible, when siting waterbody crossings and designing structures in areas containing sensitive fish habitat features. • The Proponent of the Community Access Road will complete fish and fish habitat investigations and incorporate survey findings into final crossing siting and design prior to construction and in accordance with applicable regulatory requirements.
1002	• Fish and Fish Habitat • Future Indigenous Involvement	• Potential effects of fish relocation activities on fish populations.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will establish a consultation and engagement program to guide discussions regarding fish relocation during the detail design stage.	• Not applicable.
1006	• Land and Resource Use • Future Indigenous Involvement	• Inadequate implementation and communication of environmental protection measures.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Indigenous Community	• The Proponent and Owner/Operator of the Community Access Road will develop and implement an Environmental Protection Plan (EPP), share the EPP with Aroland First Nation, and carry forward relevant environmental mitigation and management measures into the operations and maintenance phase of the Project.	• The Proponent and Owner/Operator of the Community Access Road will develop and implement an Environmental Protection Plan (EPP), share the EPP with Aroland First Nation, and carry forward relevant environmental mitigation and management measures into the operations and maintenance phase of the Project.

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1007	• Climate Change • Indigenous Knowledge and Land Use	• Increased Project vulnerability to climate change effects.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop and implement climate adaptation measures during detail design and will share these measures with Aroland First Nation.	• Not applicable.
1011	• Future Indigenous Involvement • Physio, Terrain, Soils	• Soil erosion and sediment release to surface waters.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop a Sediment and Erosion Control Plan in accordance with Ontario Provincial Standard Specifications Construction Specification for Temporary Erosion Control (Ontario Provincial Standard Specifications, 2021a) and Construction Specification for Temporary Sediment Control (Ontario Provincial Standard Specifications, 2020). The Proponent will share the Sediment and Erosion Control Plan with Kashechewan First Nation.	• Not applicable.
1014	• Groundwater	• Contamination of groundwater and surface water from spills.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop a Spill Prevention and Emergency Response Plan during the next phase of the Project and will share the Plan with Kashechewan First Nation.	• Not applicable.
1015	• Future Indigenous Involvement • Groundwater	• Environmental contamination from improper waste management.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop a Waste Management Plan during the next phase of the Project and will share the Plan with Kashechewan First Nation.	• Not applicable.
1016	• Future Indigenous Involvement • Groundwater	• Community concerns related to blasting activities.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop a Blasting and Communication Management Plan during the detail design phase of the Project and will share the Plan with Kashechewan First Nation.	• Not applicable.
1018	• Vegetation • Future Indigenous Involvement	• Limited Indigenous awareness of environmental protection measures.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will share the Environmental Protection Plan with Kashechewan First Nation.	• Not applicable.
1019	• Future Indigenous Involvement • Vegetation	• Potential loss or disturbance of vegetation and associated Indigenous values due to project activities.	• Detail Design / Pre-Construction	• Indigenous Community	• The Owner/ Operator will share the Vegetation Restoration Plan with Kashechewan First Nation.	• Not applicable.
1023	• Atmospheric Environment	• Dust generation and air emissions during road operations may affect air quality.	• Detail Design / Pre-Construction • Operations and Maintenance	• Indigenous Community	• The Proponent of the Community Access Road will develop a Project-specific environmental monitoring program during the next phase of the Project that includes mitigation measures to control dust and air emissions during the operation and maintenance phase.	• The Proponent of the Community Access Road will develop a Project-specific environmental monitoring program during the next phase of the Project that includes mitigation measures to control dust and air emissions during the operation and maintenance phase.
1025	• Request for Regulators	• Limited Indigenous participation in project planning and decision-making may affect incorporation of Indigenous interests.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will continue to engage with Constance Lake First Nation and will define engagement processes during the detail design phase to support appropriate Indigenous community participation and representation in the Project.	• Not applicable.

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1027	• Engineering and Design (incl. Bridges and Culverts)	• Operational and construction lighting may disturb wildlife and alter the nighttime environment.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will evaluate operational lighting requirements during the detail design phase of the Project. Construction-phase lighting will be restricted to construction sites where required for safety purposes.	• Not applicable.
1030	• Accidents and Malfunctions	• Road design deficiencies could increase public safety risks and accident potential.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will design the Community Access Road in accordance with Provincial Highway Standards.	• Not applicable.
1031	• Future Indigenous Involvement	• Lack of culturally appropriate communication during construction may limit effective Indigenous involvement.	• Construction	• Indigenous Community	• Not applicable.	• The Owner/Operator of the Community Access Road will encourage the contractor to consider a culturally appropriate reporting system during construction.
1032	• Future Indigenous Involvement • Peatlands	• Peatland disturbance or removal may affect ecological functions and Indigenous interests.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will engage Kashechewan First Nation in the event that peatlands will be removed or altered.	• Not applicable.
1042	• Engineering and Design (incl. Bridges and Culverts)	• Remote road travel may create traveler safety risks and emergency preparedness concerns.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent of the Community Access Road will incorporate rest areas/pull-out relief points along the Community Access Road at approximately 12.5 km intervals, staggered on alternating sides of the roadway. • The owner/operator of the Community Access Road will install signage along the Community Access Road promoting traveler preparedness, including carrying essential survival supplies and providing information on distances to available fuel and supply services.	• The Proponent of the Community Access Road will incorporate rest areas/pull-out relief points along the Community Access Road at approximately 12.5 km intervals, staggered on alternating sides of the roadway. • The owner/operator of the Community Access Road will install signage along the Community Access Road promoting traveler preparedness, including carrying essential survival supplies and providing information on distances to available fuel and supply services.
1047	• Future Indigenous Involvement • Physio, Terrain, Soils	• Soil erosion and sediment transport may affect soil stability and adjacent environmental features.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will share the Erosion and Sediment Control Plan with Constance Lake First Nation.	• Not applicable.
1048	• Future Indigenous Involvement • Operations and Maintenance (incl. post-construction monitoring) • Fish and Fish Habitat	• Road construction and operation may affect fish habitat and waterbody conditions.	• Construction • Operations and Maintenance	• Indigenous Community	• Not applicable.	• The owner/operator of the Community Access Road will develop and implement waterbody monitoring programs.

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1052	• Ungulates	• Construction and operation activities may disturb caribou and affect habitat use.	• Detail Design / Pre-Construction • Operations and Maintenance • Construction	• Indigenous Community	• The Proponent of the Community Access Road will engage with Indigenous communities, including Kashechewan First Nation, and regulators during the permitting phase to determine requirements for ongoing caribou monitoring during the construction and operations phases of the Project.	• The Proponent of the Community Access Road will engage with Indigenous communities, including Kashechewan First Nation, and regulators during the permitting phase to determine requirements for ongoing caribou monitoring during the construction and operations phases of the Project.
1053	• Indigenous Knowledge and Land Use • Operations and Maintenance (incl. post-construction monitoring) • Ungulates	• Project activities may affect ungulate movement and distribution patterns.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will discuss and evaluate potential Before-After Control-Impact monitoring approaches, including remote camera monitoring, during engagement and consultation in the next phase of the Project.	• Not applicable.
1054	• Future Indigenous Involvement • Physio, Terrain, Soils	• Soil disturbance and handling activities may result in erosion, degradation, or loss of soil quality.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent and the Owner/Operator of the Community Access Road will develop and implement a soil management plan and will share it with Kashechewan First Nation.	• The Proponent and the Owner/Operator of the Community Access Road will develop and implement a soil management plan and will share it with Kashechewan First Nation.
1058	• Future Indigenous Involvement • Operations and Maintenance (incl. post-construction monitoring) • Groundwater	• Road operation may affect groundwater quantity and quality.	• Operations and Maintenance	• Indigenous Community	• Not applicable.	• The Owner/ Operator will develop and implement all required monitoring programs during the operations and maintenance phase.
1068	• Surface Water	• Dust suppression activities may affect nearby surface water quality.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will review best management practices recommended by Environment Canada as part of planning for dust control measures during the next phase of the Community Access Road. This will include applying dust suppressants, scheduling activities to reduce exposure during dry or windy conditions, etc. Specific measures will be finalized during detail design.	• Not applicable.
1071	• Future Indigenous Involvement • Peatlands	• Project effects on peatlands may overlap with other planned regional developments.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will work with Webequie First Nation to identify areas in which their respective road projects can collaborate on where feasible, as desired by Webequie First Nation.	• Not applicable.
1073	• Future Indigenous Involvement • Wildlife • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Blasting activities may disturb wildlife through noise and vibration.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent with the Owner/ Operator will develop a Blasting and Communication Management Plan that will be shared with Kashechewan First Nation.	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
1076	• Ungulates	• Disturbed soil surfaces may increase erosion and sedimentation.	• Construction	• Indigenous Community	• Not applicable.	• The Owner/Operator of the Community Access Road will complete stabilization of disturbed earth surfaces within 20 calendar days of disturbance. Where final stabilization measures cannot be applied within this timeframe, the Owner/Operator will implement appropriate interim measures to provide temporary protection until final cover can be applied.
1082	• Engineering and Design (incl. Bridges and Culverts) • Physio, Terrain, Soils	• Erosion and sedimentation at water crossings may affect soils and aquatic environments.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop the Erosion and Sediment Control Plan during detail design and will include site-specific plans for all watercourse crossings to address setback distances, ice-damming and erosion.	• Not applicable.
1084	• Fish and Fish Habitat	• Construction activities may introduce or spread aquatic invasive species.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent and Owner/Operator of the Community Access Road will develop and implement protocols within the Environmental Protection Plan to prevent the introduction and spread of aquatic invasive species during construction, including adherence to applicable best management practices and regulatory requirements. • The Proponent of the Community Access Road will share the Environmental Protection Plan with Constance Lake First Nation.	• The Proponent and Owner/Operator of the Community Access Road will develop and implement protocols within the Environmental Protection Plan to prevent the introduction and spread of aquatic invasive species during construction, including adherence to applicable best management practices and regulatory requirements. • The Proponent of the Community Access Road will share the Environmental Protection Plan with Constance Lake First Nation.
1091	• Wildlife • Consultation	• Wildlife movement and habitat connectivity may be affected by road construction and operation.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop reporting protocols for wildlife-vehicle collisions and incidental observations of Species at Risk and will incorporate these protocols into the Environmental Protection Plan. • The Proponent of the Community Access Road will evaluate potential modifications to the detailed road design to facilitate wildlife movement and maintain habitat connectivity at watercourse crossings.	• Not applicable.
1092	• Wildlife	• Project-related habitat disturbance may affect wildlife populations and behaviour.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop final monitoring programs through consultation with Indigenous communities, and federal and provincial regulators, and will incorporate requirements outlined in federal and provincial permits and/or authorizations.	• Not applicable.
1095	• Ungulates • Future Indigenous Involvement	• Increased access may affect moose populations through increased harvesting pressure and vehicle collisions.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop a comprehensive Moose Access and Monitoring Plan for the Community Access Road. The Moose Access and Monitoring Plan will be shared with Constance Lake First Nation. The plan will include long-term monitoring of moose presence, hunting pressure, identification of high-risk moose collision zones, and moose-vehicle collisions.	• Not applicable.
1104	• Future Indigenous Involvement • Physio, Terrain, Soils	• Soil erosion and sedimentation may affect landforms, soils, and nearby waterbodies.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop and implement an Erosion and Sediment Control plan. The plan will be shared with Ginoogaming First Nation.	• Not applicable.
1105	• Engineering and Design (incl. Bridges and Culverts) • Physio, Terrain, Soils	• Watercourse crossing construction may increase erosion and sediment transport.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop an Erosion and Sediment Control Plan during detail design and will include site-specific plans for all watercourse crossings to address setback distances, ice-damming and erosion.	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
1107	• Fish and Fish Habitat • Future Indigenous Involvement	• Construction equipment and activities may facilitate the spread of aquatic invasive species.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent and Owner/Operator of the Community Access Road will develop and implement protocols within the Project-specific Environmental Protection Plan to prevent the introduction and spread of aquatic invasive species during construction, including adherence to applicable best management practices and regulatory requirements. The Proponent will share the Environmental Protection Plan with Ginoogaming First Nation.	• The Proponent and Owner/Operator of the Community Access Road will develop and implement protocols within the Project-specific Environmental Protection Plan to prevent the introduction and spread of aquatic invasive species during construction, including adherence to applicable best management practices and regulatory requirements. The Proponent will share the Environmental Protection Plan with Ginoogaming First Nation.
1111	• Provincial Process • Surface Water	• Changes in water management regimes may affect watercourse crossing performance and surface water flows.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will design and construct watercourse crossing structures affected by the Community Access Road to accommodate seasonal flow variability and potential flow diversions associated with the Waboose Control Dam. • The Owner/Operator of the Community Access Road will coordinate with Ontario Power Generation and applicable regulators regarding the Nipigon River System Water Management Plan.	• Not applicable.
1112	• Surface Water	• Altered river flows and seasonal variability may affect crossing design and hydrologic conditions.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will consider seasonal flow variability and potential flow diversions associated with Cedar Channels Control Dam and the Albany River during detail design and will incorporate these considerations into the design and construction of affected watercourse crossing structures.	• Not applicable.
1113	• Physio, Terrain, Soils	• Geochemical conditions may result in acid rock drainage or metal leaching.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop a Geochemical Verification Plan during the detail design phase and provide to Constance Lake First Nation.	• Not applicable.
1114	• Physio, Terrain, Soils • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Aggregate source availability and suitability may affect project construction requirements.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will prepare a comprehensive inventory of proposed borrow/aggregate sources during the detail design phase. Geotechnical investigation results will be used during detail design to assess the suitability and sufficiency of aggregate materials and determine whether additional sources are required.	• Not applicable.
1117	• Surface Water	• Spills, erosion, and sediment release may degrade surface water quality.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop a Spill Prevention and Emergency Response Plan that incorporates Best Management Practices and regulatory permit requirements. • The Owner/Operator of the Community Access Road will conduct turbidity monitoring in accordance with applicable DFO/MNR permit requirements and CCME guidelines to verify sediment and erosion control effectiveness.	• The Proponent of the Community Access Road will develop a Spill Prevention and Emergency Response Plan that incorporates Best Management Practices and regulatory permit requirements. • The Owner/Operator of the Community Access Road will conduct turbidity monitoring in accordance with applicable DFO/MNR permit requirements and CCME guidelines to verify sediment and erosion control effectiveness.
1119	• Engineering and Design (incl. Bridges and Culverts) • Operations and Maintenance (incl. post-construction monitoring)	• Permafrost degradation may affect long-term road stability and performance.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will work with the Ministry of Transportation, the Northern Road Link, and Webequie Supply Road Project Team to develop a coordinated approach to permafrost assessment. • The Proponent of the Community Access Road will develop a Permafrost Management Plan during the detail design phase. • Results from additional permafrost investigations will be used to inform detail design and any required design modifications.	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
1120	• Physio, Terrain, Soils	• Construction activities near waterbodies may affect soils and water quality.	• Construction	• Indigenous Community	• Not applicable.	• The Owner/Operator of the Community Access Road will adhere to applicable guidelines governing setback distances from waterbodies during construction activities. A minimum 30-metre setback from the high-water mark of lakes, rivers, and streams will be maintained where feasible.
1125	• Future Indigenous Involvement • Atmospheric Environment	• Air emissions and particulate matter may affect air quality during construction and operation.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Indigenous Community	• The Proponent will prepare air emissions mitigation and monitoring plan for the Owner/ Operator to implement throughout the projects life cycle in response to predicted exceedances.	• The Proponent will prepare air emissions mitigation and monitoring plan for the Owner/ Operator to implement throughout the projects life cycle in response to predicted exceedances.
1128	• Physio, Terrain, Soils • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Sediment mobilization from steep slopes may affect adjacent waterbodies.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will consider increasing the riparian buffer around certain waterbodies with a high slope if it is determined to be suitable or necessary to protect the waterbody from sediment mobilization, during detail design.	• Not applicable.
1130	• Future Indigenous Involvement • Wildlife	• Habitat loss and fragmentation may affect wolverine populations and habitat availability.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will finalize the Preliminary Biodiversity Offset Plan during detail design. The plan will offset the loss of wolverine habitat and indirect alteration of additional habitat through habitat fragmentation, sensory disturbance, and edge effects. A long-term monitoring plan will also be included to validate success of the offsetting measures. • The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations	• Not applicable.
1131	• Wildlife	• Road infrastructure may impede wildlife movement and habitat connectivity.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will continue discussions regarding potential modifications to the preliminary engineering design to facilitate safe wildlife crossing, final decisions will be made during detail design. • The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. In the absence of an existing advisory committee with an aligned mandate to Marten Falls First Nation, a Terms of Reference between relevant agencies and Ginoogaming First Nation will be established. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities.	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
1136	• Ungulates • Future Indigenous Involvement	• Increased access may affect moose populations and increase collision risks.	• Detail Design / Pre-Construction	• Indigenous Community	• A comprehensive Moose Access and Monitoring Plan will be developed by the Proponent of the Community Access Road. The Moose Access and Monitoring Plan will be shared with Ginoogaming First Nation. The plan will include long-term monitoring of moose presence, hunting pressure, identification of high-risk moose collision zones, and moose-vehicle collisions. The plan will be developed to protect the safety of people and moose.	• Not applicable.
1137	• Ungulates • Cumulative Effects • Engineering and Design (incl. Bridges and Culverts)	• Cumulative effects and increased access may affect moose habitat use and population sustainability.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Indigenous Community	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs (including a Moose Access and Monitoring Plan), mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities including Ginoogaming First Nation. The Proponent will develop a Moose Access and Monitoring Plan which will include long-term monitoring of moose presence, identification of high-risk moose collision zones, and moose-vehicle collisions. The plan will be developed to protect the safety of people and moose.	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs (including a Moose Access and Monitoring Plan), mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities including Ginoogaming First Nation. • The Proponent will develop a Moose Access and Monitoring Plan which will include long-term monitoring of moose presence, identification of high-risk moose collision zones, and moose-vehicle collisions. The plan will be developed to protect the safety of people and moose.
1139	• Vegetation • Wildlife • Future Indigenous Involvement	• Construction and operation activities may affect vegetation and wildlife habitat.	• Detail Design / Pre-Construction	• Indigenous Community	• The Owner/Operator of the Community Access Road will share the Environmental Protection Plan with Ginoogaming First Nation and will be responsible for the development and implementation of the Environmental Protection Plan.	• Not applicable.
1140	• Wildlife • Vegetation • Ungulates • Future Indigenous Involvement	• Monitoring data may be required to verify project effects on vegetation, wildlife, and ungulates.	• Detail Design / Pre-Construction	• Indigenous Community	• The Owner/Operator of the Community Access Road will provide monitoring results to the Ministry of the Environment, Conservation and Parks (MECP) and the environmental advisory committees can request the results from MECP.	• Not applicable.
1143	• Surface Water	• Changes to surface water flow regimes and hydraulic conditions due to seasonal variability and upstream flow management.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will consider seasonal hydrologic variability and potential flow diversions from the Waboose Control Dam during detail design of downstream crossing structures. • The Proponent of the Community Access Road will coordinate with Ontario Power Generation and applicable regulators regarding the Nipigon River System Water Management Plan.	• Not applicable.
1147	• Groundwater	• Potential groundwater quality impacts from acid rock drainage and metal leaching.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will develop a geochemical verification plan during detail design phase and will share the plan with Ginoogaming First Nation.	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
1148	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Insufficient quantity or quality of aggregate resources for construction activities.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will use geotechnical information collected from aggregate sites during the detail design phase to better understand the volume and quality of materials present. The findings will be used to assess if the materials are sufficient and of adequate quality or if other sources would be required.	• Not applicable.
1149	• Future Indigenous Involvement • Physio, Terrain, Soils	• Potential soil and groundwater contamination from acid-generating or metal-leaching materials.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will develop a geochemical verification plan during detail design phase and will share the plan with AZA.	• Not applicable.
1151	• Surface Water	• Deterioration of surface water quality during construction activities.	• Construction	• Indigenous Community	• Not applicable.	• The Owner/Operator of the Community Access Road will conduct surface water quality monitoring in accordance with applicable DFO and MNR permit requirements and CCME Canadian Water Quality Guidelines for the Protection of Aquatic Life to evaluate the effectiveness of mitigation measures.
1152	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring) • Groundwater	• Potential groundwater quality impacts associated with aggregate source development.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will use geotechnical information collected from aggregate sites during the detail design phase to better understand the volume and quality of materials present. The findings will be used to assess if the materials are sufficient and of adequate quality or if other sources would be required.	• Not applicable.
1154	• Atmospheric Environment • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Air emissions from construction and operation activities affecting local air quality.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will prepare an emissions management plan during detail design phases for both construction and operation phases and will include vehicle emissions and considerations for the use of non-diesel vehicles.	• Not applicable.
1155	• Future Indigenous Involvement • Atmospheric Environment	• Degradation of air quality and potential effects on human and ecological receptors.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Indigenous Community	• The Proponent will prepare an emissions management plan during detail design phase for both construction and operations phases. Mitigation measures will be considered for all activities. After reviewing the impacts of mitigation options on air quality, monitoring will be considered in each phase and appropriate levels of monitoring will be conducted based on the results of the assessment. • The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring	• The Proponent will prepare an emissions management plan during detail design phase for both construction and operations phases. Mitigation measures will be considered for all activities. After reviewing the impacts of mitigation options on air quality, monitoring will be considered in each phase and appropriate levels of monitoring will be conducted based on the results of the assessment. • The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
					programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities including Constance Lake First Nation.	programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities including Constance Lake First Nation.
1157	• Climate Change • Wildlife	• Climate change altering wildlife timing, behaviour, and habitat use.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Indigenous Community	• The Proponent and/or Owner/Operator will consider, during project mitigation, monitoring, and adaptive manage planning, the effects of climate change in determining the appropriate timing of sensitive periods for wildlife (e.g., breeding, migration, denning).	• The Proponent and/or Owner/Operator will consider, during project mitigation, monitoring, and adaptive manage planning, the effects of climate change in determining the appropriate timing of sensitive periods for wildlife (e.g., breeding, migration, denning).
1158	• Operations and Maintenance (incl. post-construction monitoring) • Engineering and Design (incl. Bridges and Culverts)	• Permafrost degradation affecting road and crossing infrastructure stability.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will work with the Ministry of Transportation, the Northern Road Link, and Webequie Supply Road Project Team to develop a coordinated approach to permafrost assessment. • The Proponent will use information collected during additional permafrost studies to inform potential changes during detail design.	• Not applicable.
1159	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring) • Physio, Terrain, Soils	• Erosion, sedimentation, and disturbance to waterbodies and sensitive features.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent will develop detail design drawings which include setbacks from waterbodies and other sensitive features as applicable. • The Owner/ Operator will adhere to applicable guidelines during construction governing setback distances from waterbodies. In accordance with standard planning and environmental protection practices in Ontario, a minimum 30-metre setback from the high-water mark of lakes, rivers, and streams will be maintained wherever feasible.	• The Proponent will develop detail design drawings which include setbacks from waterbodies and other sensitive features as applicable. • The Owner/ Operator will adhere to applicable guidelines during construction governing setback distances from waterbodies. In accordance with standard planning and environmental protection practices in Ontario, a minimum 30-metre setback from the high-water mark of lakes, rivers, and streams will be maintained wherever feasible.
1164	• Peatlands	• Loss or alteration of peatland habitat and ecological functions.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will offset the loss of peatlands (where feasible) through the Preliminary Biodiversity Offset Plan along with a long-term monitoring plan to validate success of the offsetting measures. The Preliminary Biodiversity Offset Plan will be finalized during detail design phase and the specific approach will be determined though consultation with Indigenous communities.	• Not applicable.
1168	• Atmospheric Environment	• Air quality impacts from road operations and vehicle emissions.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will develop an air quality emissions mitigation and monitoring plan for the operations phase that considers representative locations for air quality monitoring.	• Not applicable.
1169	• Future Indigenous Involvement • Atmospheric Environment	• Elevated particulate matter and dust affecting air quality and nearby receptors.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will prepare air quality mitigation and monitoring plans for both construction and operations in response to predicted exceedances, mostly of particulate concentrations. • The Proponent will consider, for the operations phase, the use of environmentally friendly dust suppression methods approved by the Ontario ministry of Transport and the use of roadside vegetation and natural windbreaks. • A consultation and engagement program will be established by the Proponent of the Community Access Road to guide discussions through detail design.	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
1170	• Atmospheric Environment • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Air contaminant emissions from vehicles and equipment.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will prepare an air quality mitigation and monitoring plan during detail design phase for both construction and operation phases and will include vehicle emissions and considerations for the use of non-diesel vehicles.	• Not applicable.
1171	• Atmospheric Environment	• Long-term air quality impacts requiring mitigation and monitoring.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will prepare an air quality mitigation and monitoring plan during detail design phase. The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities including Ginoogaming First Nation.	• Not applicable.
1174	• Operations and Maintenance (incl. post-construction monitoring) • Engineering and Design (incl. Bridges and Culverts)	• Infrastructure instability associated with permafrost conditions.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will use the information collected during additional permafrost studies to inform potential changes during detail design phase.	• Not applicable.
1178	• Indigenous Knowledge and Land Use • Future Indigenous Involvement • Operations and Maintenance (incl. post-construction monitoring)	• Potential effects on Indigenous land use values due to incomplete Indigenous Knowledge incorporation.	• Detail Design / Pre-Construction	• Indigenous Community	• Any additional Indigenous Knowledge that becomes available will be considered by the Proponent during the detail design phase of the Community Access Road.	• Not applicable.
1179	• Surface Water	• Changes to surface water quality from runoff and project-related activities.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will undertake a Quantitative Water Quality Assessment during the next phase of the Community Access Road, prior to construction.	• Not applicable.
1180	• Surface Water	• Surface water contamination from concrete washout water.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent to design wash systems for concrete washout water at the detail design stage in compliance with applicable regulations.	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
1182	• Indigenous Knowledge and Land Use	• Potential effects on Indigenous rights and land use values if Indigenous Knowledge is not incorporated.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities.	• Not applicable.
1183	• Future Indigenous Involvement • Consultation	• Potential inadequate incorporation of Indigenous interests, perspectives, and rights-based resource use considerations in environmental monitoring programs.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities including Animbiigoo-Zaagi'igan Anishinaabek.	• Not applicable.
1184	• Surface Water	• Adverse effects on sensitive aquatic ecosystems from wastewater discharge.	• Detail Design / Pre-Construction	• Indigenous Community	• The Owner/ Operator of the Community Access Road will work with local communities to develop and implement a discharge plan to avoid discharge into sensitive areas and will account for ecologically and socially sensitive waterbodies, during detail design.	• Not applicable.
1186	• Surface Water	• Disturbance to watercourses and fish habitat during temporary crossing activities.	• Construction	• Indigenous Community		• The Owner / Operator of the Community Access Road will follow the DFO interim code of practice for temporary bridges and for removing beaver dams, where applicable.
1188	• Atmospheric Environment	• Air quality degradation from construction and operation emissions.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will prepare an air emissions management plan during detail design phase for both construction and operations phases. Mitigation measures will be considered for all activities. After reviewing the impacts of mitigation options on air quality, monitoring will be considered in each phase and appropriate levels of monitoring will be conducted based on the results of the assessment.	• Not applicable.
1190	• Engineering and Design (incl. Bridges and Culverts)	• Long-term disturbance from temporary project infrastructure.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Owner / Operator will develop and implement the Reclamation Plan for the Community Access Road.	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
1192	• Surface Water	• Surface water quality impacts from construction dewatering and discharge activities.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent of the Community Access Road will develop discharge plans at the detail design stage and will submit to regulating authorities for permitting/approval prior to construction. Construction discharge/ dewatering to land surface will require a minimum of 30 m setback from the waterbody. These plans will be shared with local indigenous groups/communities. • The Owner/ Operator of the Community Access Road will be responsible for the implementation of the discharge plan.	• The Proponent of the Community Access Road will develop discharge plans at the detail design stage and will submit to regulating authorities for permitting/approval prior to construction. Construction discharge/ dewatering to land surface will require a minimum of 30 m setback from the waterbody. These plans will be shared with local indigenous groups/communities. • The Owner/ Operator of the Community Access Road will be responsible for the implementation of the discharge plan.
1196	• Future Indigenous Involvement • Atmospheric Environment • Community Well-Being	• Dust and particulate emissions affecting community well-being and air quality.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will prepare an air quality mitigation and monitoring plan during detail design phase in response to predicted exceedances, mostly of particulate concentrations. • The Proponent, for use during the operations phase, will consider environmentally friendly dust suppression methods that are approved by the Ontario ministry of Transport, as would the use of roadside vegetation and natural windbreaks. • Should the Community Access Road EA / IS be approved to proceed, the Proponent will establish a consultation and engagement program to guide discussions through detail design.	• Not applicable.
1198	• Future Indigenous Involvement • Surface Water	• Surface water quality impacts from road runoff.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will conduct a Quantitative Water Quality Assessment to evaluate runoff quality and confirm appropriate treatment measures once design details are available.	• Not applicable.
1201	• Cumulative Effects	• Cumulative effects on surface water quantity from project water use and discharge.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent has undertaken cumulative effects assessment for surface water quantity which provide project and physical activity inclusion lists within the aquatics effects assessment regional study area. The Proponent will prepare a water taking and discharge plan(s) during the detail design stage which will utilize information from the cumulative effects assessment, which will be provided in permitting applications as required.	• Not applicable.
1205	• Indigenous Knowledge and Land Use • Groundwater	• Effects on springs, seeps, and groundwater-dependent features.	• Detail Design / Pre-Construction	• Indigenous Community	• If seep/springs are identified within the groundwater effects assessment study areas during the detail design phase of the Community Access Road, they will be considered by the Proponent in the pre-construction monitoring programs, as applicable.	• Not applicable.
1206	• Groundwater	• Groundwater quantity and quality impacts from water taking activities.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will prepare a Groundwater Use/Taking Management Plan that will outline the considerations and expectations for Project groundwater use, including what supporting investigations and studies are required to assess water taking impacts, what thresholds of groundwater taking will trigger the investigations, and how the groundwater taken should be managed and returned to the environment.	• Not applicable.
1207	• Groundwater	• Limited Indigenous participation in the development and implementation of environmental monitoring programs.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities including Nibinamik First Nation.	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
1208	• Groundwater	• Altered groundwater and drainage patterns causing flooding or erosion.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• As a component of detail design, the Proponent will complete refined ground water and surface water drainage management investigations and mitigations where necessary to maintain existing drainage patterns and prevent flooding or erosion as applicable.	• As a component of detail design, the Proponent will complete refined ground water and surface water drainage management investigations and mitigations where necessary to maintain existing drainage patterns and prevent flooding or erosion as applicable.
1209	• Groundwater	• Groundwater contamination from accidental spills or releases.	• Detail Design / Pre-Construction	• Indigenous Community	• During detail design, the Proponent in consultation with applicable environmental committees and Indigenous communities, will develop a Spill Prevention and Emergency Response Plan for the Community Access Road. During construction, operation, and maintenance, the Owner/Operator of the Community Access Road will be responsible for implementing and maintaining the Plan and will employ adaptive management, as appropriate, through the established environmental committees.	• Not applicable.
1210	• Groundwater	• Potential groundwater effects requiring monitoring and adaptive management.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities including Nibinamik First Nation.	• Not applicable.
1211	• Atmospheric Environment • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring) • Community Well-Being	• Worker exposure to environmental contaminants and associated health risks.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• During detail design, the Proponent of the Community Access Road will evaluate potential worker health and safety risks, including exposure to contaminants, and develop appropriate construction planning, scheduling, and work camp logistics measures to manage those risks. During construction and operation, the Owner/Operator will be responsible for implementing such measures and maintaining the health and safety of workers employed on the Community Access Road.	• During detail design, the Proponent of the Community Access Road will evaluate potential worker health and safety risks, including exposure to contaminants, and develop appropriate construction planning, scheduling, and work camp logistics measures to manage those risks. During construction and operation, the Owner/Operator will be responsible for implementing such measures and maintaining the health and safety of workers employed on the Community Access Road.
1212	• Atmospheric Environment	• Air emissions from vehicles and construction equipment.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will prepare an air quality mitigation and monitoring plan during detail design phase and will include vehicle emissions and considerations for the use of non-diesel vehicles.	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
1213	• Operations and Maintenance (incl. post-construction monitoring) • Atmospheric Environment	• Air quality degradation affecting nearby receptors.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will prepare an air quality mitigation and monitoring plan during detail design phase. • The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities including Animbiigoo-Zaagi'igan Anishinaabek.	• Not applicable.
1215	• Engineering and Design (incl. Bridges and Culverts)	• Inadequately designed water crossings affecting flow and aquatic habitat.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will determine the type of water crossing to be constructed at each creek and river and will consider the Ministry of Transportation Highway Drainage Standards, January 2008.	• Not applicable.
1216	• Engineering and Design (incl. Bridges and Culverts)	• Improper sizing or design of crossing structures affecting water movement.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will determine additional information regarding approvals for each water crossing type and how structures will be properly sized during the permitting stage.	• Not applicable.
1217	• Provincial Process • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Potential impacts on surface water and groundwater quantity from Project-related water takings.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Owner/ Operator will register relevant water takings activities on the Environmental Activity and Sector Registry (EASR). Where the activity does not meet the criteria for an EASR, a Permit to Take Water (PTTW) may be required.
1222	• Surface Water	• Increased runoff, flooding, or infrastructure instability due to inadequate stormwater design and changing precipitation patterns.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent of the Community Access Road will analyze rainfall data during detail design to establish representative rainfall (storm) event(s) for the design of project facilities/components and will include the review of available IDF-curves such as Ministry of Transportation Intensity-Density-Frequency (IDF) curve tool.	• Not applicable.

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1225	• Groundwater	• Changes to groundwater levels or quality resulting from water taking activities.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent will establish the site-specific groundwater taking needs, impacts, mitigations, and monitoring during the detail design phase. • The established Permit to Take Water (PTTW) and Environmental Activity and Sector Registry (EASR) programs to assess and mitigate the risks of water takings. • The Owner/ Operator will adhere to the Permit to Take Water system, where new water takings require the submission of either a Category 2 or 3 application which includes a scientific evaluation and a technical study to be completed to support the water taking permit.	• The Proponent will establish the site-specific groundwater taking needs, impacts, mitigations, and monitoring during the detail design phase. • The established Permit to Take Water (PTTW) and Environmental Activity and Sector Registry (EASR) programs to assess and mitigate the risks of water takings. • The Owner/ Operator will adhere to the Permit to Take Water system, where new water takings require the submission of either a Category 2 or 3 application which includes a scientific evaluation and a technical study to be completed to support the water taking permit.
1227	• Groundwater	• Groundwater quantity or quality impacts associated with aggregate pit and quarry development.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will complete the permitting for aggregate pits and quarries in the pre-construction period. During the detail design phase, a consultation and engagement program will be established by the Proponent which will include Nibinamik First Nation in discussions including regarding aggregate permitting.	• Not applicable.
1228	• Surface Water	• Degradation of surface water quality from construction and operational activities.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent of the Community Access Road will apply the Ministry's hierarchy of water quality guidelines when assessing future surface water quality monitoring data and related comparisons.	• Not applicable.
1229	• Groundwater	• Groundwater impacts and long-term site disturbance associated with aggregate extraction areas.	• Detail Design / Pre-Construction	• Indigenous Community	• Where required, the Proponent will permit all aggregate pits and quarries used for the Community Access Road under the Aggregate Resources Act and will be subject to the standards of the Act which include the filing of rehabilitations plans, payment of rehabilitation security fees, and ongoing and final rehabilitation of the pit or quarry.	• Not applicable.
1231	• Cumulative Effects • Groundwater	• Insufficient understanding of groundwater conditions resulting in unanticipated cumulative effects.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will undertake additional groundwater monitoring and water budget study during detail design. These may result in the recommendation of additional mitigation measures and/or adaptive management measures.	• Not applicable.
1238	• Physio, Terrain, Soils • Surface Water	• Erosion and sedimentation affecting soils, watercourses, and aquatic habitat.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will prepare an Erosion and Sediment Control Plan as a component of detail design. The Plan will be provided to the relevant agencies for review and comment.	• Not applicable.
1239	• Accidents and Malfunctions • Request for Regulators • Surface Water	• Surface water contamination resulting from accidental spills or releases.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will provide the Spill Prevention and Emergency Response Plan to regulatory agencies for review, ahead of construction activities, as applicable.	• Not applicable.

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1242	• Groundwater	• Groundwater and surface water contamination from acid rock drainage or metal leaching.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will conduct additional geochemical sampling in detail design to assess potential for acid rock generation or metal leaching. Areas identified with potential will be avoided where possible. If excavation in such areas cannot be avoided, a management plan will be drafted which will focus on limiting oxygen and water exposure, recognizing the remote project location.	• Not applicable.
1246	• Groundwater	• Groundwater depletion and wastewater discharge associated with aggregate pit dewatering.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent of the Community Access Road will evaluate dredging as an alternative to aggregate pit dewatering during detail design and will implement measures, where feasible, to minimize water takings and associated wastewater discharge.	• Not applicable.
1247	• Groundwater	• Undetected changes in groundwater quantity or quality resulting from Project activities.	• Detail Design / Pre-Construction • Construction	• Government / Agency – Provincial	• The Proponent will develop a groundwater and geochemistry monitoring plan which includes the two quaternary watersheds (i.e., Gittins Lake, Robins Island-Albany River). The owner / operator will execute the monitoring program as a component of construction and operations.	• The Proponent will develop a groundwater and geochemistry monitoring plan which includes the two quaternary watersheds (i.e., Gittins Lake, Robins Island-Albany River). The owner / operator will execute the monitoring program as a component of construction and operations.
1249	• Fish and Fish Habitat	• Sedimentation and degradation of fish habitat and water quality.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent will develop the erosion and sediment control plans which the owner / operator will implement for the Community Access Road. • The Owner/ Operator will only use erosion-resistant fill material below the high-water level within the floodplain of a waterbody. Erosion resistant fill material will generally include riprap (gravel) and will be sourced from local pits and quarries. • The Owner/ Operator will only use materials cleared for acid rock drainage (i.e., non-potentially acid generating rock) by a geochemical verification process for the road surface to avoid acid rock drainage or metal leaching.	• The Proponent will develop the erosion and sediment control plans which the owner / operator will implement for the Community Access Road. • The Owner/ Operator will only use erosion-resistant fill material below the high-water level within the floodplain of a waterbody. Erosion resistant fill material will generally include riprap (gravel) and will be sourced from local pits and quarries. • The Owner/ Operator will only use materials cleared for acid rock drainage (i.e., non-potentially acid generating rock) by a geochemical verification process for the road surface to avoid acid rock drainage or metal leaching.
1251	• Groundwater	• Changes in groundwater and geochemical conditions affecting aquatic and terrestrial environments.	• Detail Design / Pre-Construction • Construction	• Government / Agency – Provincial	• The Proponent will develop a groundwater and geochemistry monitoring plan which includes the two quaternary watersheds (i.e., Gittins Lake, Robins Island-Albany River). The owner / operator will execute the monitoring program as a component of construction and operations.	• The Proponent will develop a groundwater and geochemistry monitoring plan which includes the two quaternary watersheds (i.e., Gittins Lake, Robins Island-Albany River). The owner / operator will execute the monitoring program as a component of construction and operations.
1252	• Provincial Process • Request for Regulators • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Surface water and soil contamination from improper management of domestic sewage.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will evaluate domestic sewage systems during detail design. Management of domestic sewage will be governed by established Provincial legislation, Best Practices and Guidelines and will be subject to applicable regulatory applications and permits.	• Not applicable.

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1253	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Environmental contamination resulting from improper waste handling and disposal.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will follow established Provincial legislation, Best Practices and Guidelines for general waste management, and will be subject to applicable regulatory applications and permits. • The Proponent will consider potential beneficial uses for incinerator ash during detail design.	• Not applicable.
1254	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Adverse environmental effects from poorly located temporary construction camps.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will evaluate setbacks from temporary construction camps facilities during detail design, this will also include identification of additional permitting and application requirements.	• Not applicable.
1255	• Provincial Process • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Surface water and groundwater impacts associated with water taking activities.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will follow the Permit to Take Water (PTTW) and Environmental Activity and Sector Registry (EASR) requirements.	• Not applicable.
1256	• Fish and Fish Habitat	• Disturbance or loss of fish habitat and increased sedimentation at watercourse crossings.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• During detail design The Proponent will ensure design avoids sensitive features by the road alignment wherever possible. Where they cannot be avoided due to technical constraints, the Proponent will ensure they are included in the permit applications to the Ministry of Natural Resources and Fisheries and Oceans Canada. • During construction the Owner / Operator will ensure permit conditions will be met, including the site-specific restricted activity timing window set by Ministry of Natural Resources. • The Proponent will develop mitigation measures related to the removal of temporary crossing materials during detail design. Including requirements for sediment and erosion control and reprofiling where applicable.	• During detail design The Proponent will ensure design avoids sensitive features by the road alignment wherever possible. Where they cannot be avoided due to technical constraints, the Proponent will ensure they are included in the permit applications to the Ministry of Natural Resources and Fisheries and Oceans Canada. • During construction the Owner / Operator will ensure permit conditions will be met, including the site-specific restricted activity timing window set by Ministry of Natural Resources. • The Proponent will develop mitigation measures related to the removal of temporary crossing materials during detail design. Including requirements for sediment and erosion control and reprofiling where applicable.
1258	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Environmental contamination from improper management and disposal of construction and domestic waste.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will develop the waste management plan during detail design. It will include how construction and domestic waste will be handled, waste generated, timing of removal, and destination of final waste. It will also include information on servicing options for waste disposal. The Plan will be submitted to the District for review.	• Not applicable.
1261	• Fish and Fish Habitat	• Disturbance or loss of sensitive fish and fish habitat due to road construction activities.	• Detail Design / Pre-Construction	• Indigenous Community	• During detail design the Proponent will ensure design avoids sensitive features by the road alignment wherever possible. Where they cannot be avoided due to technical constraints, the Proponent will ensure they are included in the permit applications to the Ministry of Natural Resources and Fisheries and Oceans Canada.	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
1262	• Fish and Fish Habitat • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Surface water and fish habitat degradation resulting from wastewater disposal.	• Detail Design / Pre-Construction • Construction	• Government / Agency – Provincial	• The Proponent will obtain all required permits and authorizations related to holding tank systems for off-site disposal, or on-site leaching beds as determined in the detail design process. • The Owner/ Operator will dispose of domestic sewage from temporary construction camps with off-site disposal or on-site leaching beds designed in accordance with applicable codes and approvals. If required and when feasible, domestic wastewater will be removed by approved disposal trucks and disposed of at wastewater treatment plants with the authorization and capacity to accept this wastewater.	• The Proponent will obtain all required permits and authorizations related to holding tank systems for off-site disposal, or on-site leaching beds as determined in the detail design process. • The Owner/ Operator will dispose of domestic sewage from temporary construction camps with off-site disposal or on-site leaching beds designed in accordance with applicable codes and approvals. If required and when feasible, domestic wastewater will be removed by approved disposal trucks and disposed of at wastewater treatment plants with the authorization and capacity to accept this wastewater.
1263	• Erosion and Sediment Control	• Increased erosion, sediment transport, and surface water quality degradation.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Owner/ Operator will develop and implement an Erosion and Sediment Control Plan in accordance with the Ontario Provincial Standard Specifications for erosion and sediment control measures (OPSS.PROV 804, OPSS.MUNI 182 and OPSS.MUNI 805). This includes provision of multistage drainage and sediment controls to collect and treat stormwater runoff from Project components, as appropriate. These controls may include diversion swales / dykes, collection ditches, silt fences, rock check dams, sediment traps / basins, level spreaders and riparian buffer strips. • The Owner/ Operator will use erosion resistant fill material which includes riprap (gravel) and will be sourced from local pits and quarries.	• The Owner/ Operator will develop and implement an Erosion and Sediment Control Plan in accordance with the Ontario Provincial Standard Specifications for erosion and sediment control measures (OPSS.PROV 804, OPSS.MUNI 182 and OPSS.MUNI 805). This includes provision of multistage drainage and sediment controls to collect and treat stormwater runoff from Project components, as appropriate. These controls may include diversion swales / dykes, collection ditches, silt fences, rock check dams, sediment traps / basins, level spreaders and riparian buffer strips. • The Owner/ Operator will use erosion resistant fill material which includes riprap (gravel) and will be sourced from local pits and quarries.
1264	• Fish and Fish Habitat	• Sedimentation and habitat degradation affecting fish and fish habitat.	• Construction	• Indigenous Community	• Not applicable.	• The Proponent will develop and implement the Erosion and Sediment Control Plans for the Community Access Road.
1266	• Provincial Process • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Noise and vibration effects on nearby receptors from blasting activities.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will develop a blasting and communication management plan during the detail design phase. The following publications will be reviewed as part of the plan development: MECP Publications NPC-115 and NPC-118 for source-based noise limits, NPC-119 and NPC-207 for receptor-based limits due to impulsive vibration from construction activities such as blasting and pile driving, and MECP Publications NPC-300 for stationary and transportation sources.	• Not applicable.
1267	• Engineering and Design (incl. Bridges and Culverts)	• Uncontrolled burning causing safety risks, air quality impacts, or wildfire hazards.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Owner/ Operator will contact the Ministry of Natural Resources to determine permitting requirements prior to burning slash piles for the Community Access Road.
1270	• Physio, Terrain, Soils	• Soil degradation and improper management of excess soil materials.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will develop a Soil Management Plan during the detail design phase. Considerations for the Excess Soil Regulation (Ontario Regulation 406/19) will occur during detail design.	• Not applicable.
1271	• Fish and Fish Habitat	• Soil erosion and sedimentation affecting aquatic habitats.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will define detailed soil management and handling procedures (including erosion and sediment control). During the detail design phase, additional Plans will be developed that include project specific soil management and handling procedures such as erosion control procedures required regardless of season.	• Not applicable.

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1272	• Fish and Fish Habitat	• Cumulative sedimentation effects on fish habitat and water quality.	• Detail Design / Pre-Construction	• Indigenous Community	• The proponent will develop an Erosion and Sediment Control Plans for the Community Access Road.	• Not applicable.
1277	• Fish and Fish Habitat	• Injury, mortality, or disturbance to fish from blasting overpressure and vibration.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Indigenous Community	• The Owner/ Operator will follow overpressure and vibration guidelines for blasting activities as outlined in the Ontario Provincial Standard Specification General Specifications for the Use of Explosives (OPSS, 2014) and the Fisheries and Oceans Canada Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters (Wright and Hopky, 1998). Explosives will only be used if alternate methods of excavation to remove materials for foundation systems and roads are not feasible. • The Proponent will use calculations based on charge weights and substrates (as outlined in Wright and Hopky, 1998) to determine the setback distance for blasting from fish habitat to meet the overpressure and vibration guidelines. • The Owner / Operator will not detonate explosives in or near fish habitat that produces, or is likely to produce, an instantaneous water pressure change (i.e., overpressure) greater than 100 kilopascals (kPa) where fish are present. • The Owner/ Operator will not detonate explosives that produce / are likely to produce, a peak particle velocity greater than 13 millimetres per second (mm/s) during the restricted activity timing window in the waterbody to protect spawning beds during the period of egg incubation, even when fish are not present. • The Owner / Operator will conduct blasting activities outside of the setbacks required to meet the Fisheries and Oceans Canada overpressure and vibrations guidelines such that additional mitigations such as exclusions are not expected to be required. • The Owner / Operator will prepare a Blasting and Communication Management Plan in accordance with Ontario Provincial Standard Specification General Specifications for the Use of Explosives (OPSS, 2024) and will describe specific measures that will be implemented if blasting is required.	• The Owner/ Operator will follow overpressure and vibration guidelines for blasting activities as outlined in the Ontario Provincial Standard Specification General Specifications for the Use of Explosives (OPSS, 2014) and the Fisheries and Oceans Canada Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters (Wright and Hopky, 1998). Explosives will only be used if alternate methods of excavation to remove materials for foundation systems and roads are not feasible. • The Proponent will use calculations based on charge weights and substrates (as outlined in Wright and Hopky, 1998) to determine the setback distance for blasting from fish habitat to meet the overpressure and vibration guidelines. • The Owner / Operator will not detonate explosives in or near fish habitat that produces, or is likely to produce, an instantaneous water pressure change (i.e., overpressure) greater than 100 kilopascals (kPa) where fish are present. • The Owner/ Operator will not detonate explosives that produce / are likely to produce, a peak particle velocity greater than 13 millimetres per second (mm/s) during the restricted activity timing window in the waterbody to protect spawning beds during the period of egg incubation, even when fish are not present. • The Owner / Operator will conduct blasting activities outside of the setbacks required to meet the Fisheries and Oceans Canada overpressure and vibrations guidelines such that additional mitigations such as exclusions are not expected to be required. • The Owner / Operator will prepare a Blasting and Communication Management Plan in accordance with Ontario Provincial Standard Specification General Specifications for the Use of Explosives (OPSS, 2024) and will describe specific measures that will be implemented if blasting is required.
1278	• Atmospheric Environment	• Reduced air quality from fugitive dust emissions.	• Detail Design / Pre-Construction	• Indigenous Community	• The Owner / Operator will develop and implement the Fugitive Dust Management Plan for the Community Access Road.	• Not applicable.
1279	• Fish and Fish Habitat	• Introduction and spread of aquatic invasive species.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Owner / Operator will use best management practices and the regulations outlined by the Ministry of Natural Resources to reduce the spread of invasive species. The “Clean, Drain, Dry” method is part of the Boaters Action Plan (Ministry of Natural Resources 2022), implemented by the Ministry of Natural Resources. • The Owner / Operator will develop protocols for the prevention of aquatic invasive species during construction and will include them in the Project-specific Environmental Protection Plan. This will include the best management practices and regulations outlined by the Ministry of Natural Resources.	• The Owner / Operator will use best management practices and the regulations outlined by the Ministry of Natural Resources to reduce the spread of invasive species. The “Clean, Drain, Dry” method is part of the Boaters Action Plan (Ministry of Natural Resources 2022), implemented by the Ministry of Natural Resources. • The Owner / Operator will develop protocols for the prevention of aquatic invasive species during construction and will include them in the Project-specific Environmental Protection Plan. This will include the best management practices and regulations outlined by the Ministry of Natural Resources.
1285	• Peatlands	• Increased wildfire risk affecting peatland ecosystems and stored carbon.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will consider enhanced forest fire management measures during detail design.	• Not applicable.

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1293	• Provincial Process	• Environmental contamination from improper waste management practices.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Owner / Operator will follow the Environmental Activity and Sector Registry (EASR) for non-hazardous waste and will follow the waste management system, Environmental Compliance Approval (ECA), for all other types of waste.
1296	• Wildlife	• Insufficient consideration of Indigenous knowledge in wildlife monitoring and management.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities.	• Not applicable.
1297	• Ungulates • Wildlife	• Potential impacts to ungulates and wildlife not adequately identified or monitored.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities.	• Not applicable.
1300	• Consultation	• Reduced stakeholder and Indigenous participation during detail design.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• Should the Community Access Road EA / IS be approved to proceed, the Proponent will establish a consultation and engagement program to guide discussions through detail design.	• Not applicable.
1301	• Engineering and Design (incl. Bridges and Culverts)	• Unauthorized road access and associated public safety concerns.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Owner/Operator will review law enforcement options for the Community Access Road.
1302	• Engineering and Design (incl. Bridges and Culverts)	• Roadside instability and safety hazards associated with roadway slope design.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will design roadway fore slopes in accordance with the Ministry of Transportation (MTO) Roadside Design Manual.	• Not applicable.

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1306	• Fish and Fish Habitat • Provincial Process	• Impacts to Species at Risk, including Lake Sturgeon, during Project implementation.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Owner / Operator will pursue additional permitting with respect to Fisheries and Oceans Canada (under the Species at Risk Act) and the Ministry of the Environment, Conservation and Parks (under the Endangered Species Act and/or the Species Conservation Act) if any Species at Risk (including Lake Sturgeon) is impacted or is found in the Project Study Area prior to the permitting phase. This includes potential Species at Risk uplisting or additional species in the Project Study Area.
1309	• Indigenous Knowledge and Land Use • Visual	• Adverse visual and Indigenous land use effects requiring adaptive management.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Indigenous Community	• The Proponent of the Community Access Road will develop an Adaptive Management Plan. • The Owner/Operator of the Community Access Road will implement the Adaptive Management Plan.	• The Proponent of the Community Access Road will develop an Adaptive Management Plan. • The Owner/Operator of the Community Access Road will implement the Adaptive Management Plan.
1312	• Climate Change	• Altered drainage patterns and reduced hydrological connectivity due to climate change and infrastructure.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent will appropriately size and position culverts to confirm flow across the Community Access Road will maintain hydrological connectivity.	• The Proponent will appropriately size and position culverts to confirm flow across the Community Access Road will maintain hydrological connectivity.
1313	• Climate Change	• Unsafe road conditions caused by ponding, ice accumulation, and extreme weather events.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will design the roadway and bridges to comply with the Ministry of Transportation Design Standards addressing roadway profiles, roadside ditches and road surface cross slopes for the purposes of avoiding water ponding / ice buildup. Design parameters will also take into consideration snow plowing and maintenance requirements during the design of roadway shoulders and bridge widths along with appropriate signage.	• Not applicable.
1314	• Indigenous Knowledge and Land Use	• Potential effects on Indigenous land use not fully considered during design.	• Detail Design / Pre-Construction	• Indigenous Community	• During detail design, the Proponent will review and consider the Traditional Knowledge and Land Use study currently being undertaken by Nibinamik First Nation if the study becomes available.	• Not applicable.
1320	• Wildlife • Provincial Process	• Wildlife-vehicle interactions and insufficient wildlife occurrence data.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will develop a wildlife reporting protocol and system in consultation with interested Indigenous communities and will include Traditional Knowledge regarding wildlife hotspots, if provided during consultation.	• Not applicable.
1324	• Ungulates	• Wildlife attraction to improperly maintained rest areas and waste accumulation.	• Detail Design / Pre-Construction • Operations and Maintenance	• Government / Agency – Provincial	• The Proponent to consider the practicality of maintenance of rest areas to prevent accumulation of waste during detail design. • The Owner / Operator will determine the frequency of maintenance for the rest areas, and during the operations phase, will maintain these areas so that they are kept clean for users and to deter wildlife.	• The Proponent to consider the practicality of maintenance of rest areas to prevent accumulation of waste during detail design. • The Owner / Operator will determine the frequency of maintenance for the rest areas, and during the operations phase, will maintain these areas so that they are kept clean for users and to deter wildlife.
1325	• Engineering and Design (incl. Bridges and Culverts)	• Inaccurate traffic projections affecting roadway design & safety.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will review traffic count data available at locations closer to the study area during detail design.	• Not applicable.
1329	• Engineering and Design (incl. Bridges and Culverts)	• Alteration of watercourses and aquatic habitat from crossing structures.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will determine the type of water crossing to be constructed at each creek and river during detail design and permitting stages, and will consider bridge structures that do not require the placement of in-water abutments. The Proponent will hold discussions with Ontario Parks for water crossings within Albany River and Ogoki River Provincial Parks.	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
1335	• Ungulates	• Increased risk of wildlife-vehicle collisions.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will prioritize safety in the implementation and design phases of the Community Access Road. The road leading to and from the bridges will be designed to be tangential for at least 150 metres in both directions to provide drivers with at least 300 metres of clear view ahead to see other vehicles or wildlife. In the event that standard sight distances cannot be achieved, roadway signage will be installed to warn the travelling public of advisory reductions in travelling speed.	• Not applicable.
1336	• Provincial Process • Wildlife • Vegetation • Fish and Fish Habitat	• Disturbance to wildlife, vegetation, and fish habitat due to activities during sensitive periods.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent of the Community Access Road will integrate timing windows into detail design, and all permits and authorizations during design phases.	• Not applicable.
1341	• Provincial Process	• Environmental effects resulting from non-compliance with regulatory requirements and best practices.	• Detail Design / Pre-Construction • Construction	• Government / Agency – Provincial	• The Proponent will design the Community Access Road to meet the Ministry of Transportation guidelines and best management practices, and will follow all permit conditions from other ministries. • The Owner/ Operator will construct the Community Access Road to meet the Ministry of Transportation guidelines and best management practices, and will follow all permit conditions from other ministries.	• The Proponent will design the Community Access Road to meet the Ministry of Transportation guidelines and best management practices, and will follow all permit conditions from other ministries. • The Owner/ Operator will construct the Community Access Road to meet the Ministry of Transportation guidelines and best management practices, and will follow all permit conditions from other ministries.
1348	• Atmospheric Environment • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Air quality impacts from blasting emissions.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent, in the Emissions Management Plan, will consider formulations of the ammonium nitrate/fuel oil (ANFO) used in blasting to reduce nitrogen dioxide (NO2) and sulphur dioxide (SO2) emissions. The amount of ANFO used in each blast may need to be scaled back to reduce the number of exceedances and the distance to exceedances.	• Not applicable.
1356	• Provincial Process • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring) • Groundwater	• Groundwater impacts associated with aggregate extraction activities.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will design groundwater monitoring programs to support the aggregate permit application, and the programs will be implemented in accordance with the Aggregate Resources of Ontario: Technical Reports and Information (2023) Standards.	• Not applicable.
1358	• Land and Resource Use • Provincial Process • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Conflicts with existing mineral claims and resource users.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Owner/Operator will require the contractor responsible for detail design and permitting to consider consulting with the applicable claim and/or lease holder(s) prior to submitting the quarry permit application.	• Not applicable.

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1363	• Land and Resource Use	• Loss of merchantable timber and associated resource-use impacts.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• Merchantable timber removed from the Ogoki Forest for the purposes of the Project will receive "applicable compensation" which will be determined by the Proponent during the detail design phase.	• Not applicable.
1365	• Land and Resource Use	• Impacts to forest resources from tree harvesting activities.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Owner / Operator will provide site specific details for the harvesting of merchantable trees to the Ministry of Natural Resources during the permitting stage.	• Not applicable.
1366	• General	• Inadequate environmental planning and implementation during Project development.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• Should the Community Access Road be approved to proceed, the Proponent will address the development of environmental plans during detail design stage.	• Not applicable.
1370	• Engineering and Design (incl. Bridges and Culverts) • Fish and Fish Habitat • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Adverse effects on watercourses and fish habitat from crossing construction methods.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• A description of where culverts and/or bridges may be required and what criteria will be used to determine to snow fill crossing use will be developed by the Proponent during detail design. • Site specific water crossing information will be provided by the Proponent during the permitting stage.	• Not applicable.
1373	• Provincial Process • Physio, Terrain, Soils • Atmospheric Environment	• Erosion, sedimentation, and reduced air quality during construction.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will develop a sediment and erosion control plan and a dust/air quality management plan before construction of the Community Access Road.	• Not applicable.
1375	• Accidents and Malfunctions • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Environmental contamination and habitat impacts resulting from spills and accidental releases.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent and / or Owner / Operator will prepare a Spill Prevention and Emergency Response Plan and will include commitments to report releases to the Ministry of Environment, Conservation and Parks (MECP) Spills Action Centre at 1-800-268-6060, and implement corrective action and mitigation measures following release(s). • The Proponent and/ or Owner/ Operator to include specific details regarding fuel and material storage mitigation measures in the Spill Prevention and Emergency Response Plan. • The Proponent and/ or Owner/ Operator will include mitigations measures in the Spill Prevention and Emergency Response Plan including Project-specific training/information sessions regarding best management practices to avoid negatively affecting fish and fish habitat.	• Not applicable.

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1376	• Fish and Fish Habitat	• Increased fishing pressure affecting fish populations and Indigenous harvesting opportunities.	• Detail Design / Pre-Construction • Construction	• Government / Agency – Provincial	• The Proponent and/or Owner/Operator of the Community Access Road will work with local Indigenous communities and regulators to consider other mitigation related to increased fishing pressures as appropriate (e.g., signs, access restrictions).	• The Proponent and/or Owner/Operator of the Community Access Road will work with local Indigenous communities and regulators to consider other mitigation related to increased fishing pressures as appropriate (e.g., signs, access restrictions).
1378	• Surface Water	• Inadequate crossing design resulting in flooding, scour, or altered flow conditions.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• During detail design, the Proponent of the Community Access Road will complete hydrological and hydraulic analyses for each waterbody crossing as part of bridge and culvert design. Hydrographs representing small, medium, and large drainage areas/watersheds will be developed and submitted as part of applicable permitting applications.	• Not applicable.
1379	• Surface Water	• Flooding risks associated with watercourse crossings.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent of the Community Access Road will complete an analysis on the waterbody crossing specific flood frequency during detail design.	• Not applicable.
1380	• Cumulative Effects • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Surface water and groundwater impacts from water taking and discharge activities.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• Water taking and discharge plans will be prepared at the detail design stage by the Proponent of the Community Access Road and will be provided in permitting applications.	• Not applicable.
1388	• Engineering and Design (incl. Bridges and Culverts)	• Permafrost degradation affecting roadway stability and performance.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will develop a permafrost management plan during the detail design stage.	• Not applicable.
1390	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring) • Visual	• Visual effects and land disturbance associated with temporary infrastructure remaining after construction.	• Operations and Maintenance	• Government / Agency – Provincial	• Not applicable.	• The Owner / Operator will provide the decommissioning plan for temporary infrastructure and roads to the Ministry of Natural Resources after construction.
1391	• Land and Resource Use	• Unauthorized access to the road and aggregate sources resulting in land use conflicts and safety concerns.	• Construction • Operations and Maintenance	• Government / Agency – Provincial	• Not applicable.	• The Owner / Operator will monitor road restrictions. • The Owner / Operator will restrict access to pits/quarries as per the Aggregate Resources Regulation 244/97.

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1392	• Operations and Maintenance (incl. post-construction monitoring) • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Insufficient Indigenous participation in environmental monitoring may reduce monitoring effectiveness and incorporation of Indigenous knowledge.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Indigenous Community	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities including Marten Falls First Nation and Nibinamik First Nation. • Capacity and funding requirements to support involvement of Environmental Monitors and Indigenous Environmental Monitors during environmental monitoring programs will be determined by the Proponent and/or Owner/Operator of the Community Access Road.	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities including Marten Falls First Nation and Nibinamik First Nation. • Capacity and funding requirements to support involvement of Environmental Monitors and Indigenous Environmental Monitors during environmental monitoring programs will be determined by the Proponent and/or Owner/Operator of the Community Access Road.
1394	• Vegetation • Request for Regulators • Wildlife	• Potential effects on Species at Risk vegetation and wildlife requiring regulatory review and permitting.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent of the Community Access Road will engage the Ministry of the Environment, Conservation and Parks on plans related to Species at Risk.	• Not applicable.
1395	• Wildlife • Request for Regulators	• Potential effects on newly listed bat Species at Risk and their habitats.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Owner/Operator of the Community Access Road will engage with the Ministry of Environment, Conservation and Parks (MECP) to determine appropriate permitting requirements for the newly listed bat species (i.e., Hoary Bat, Silver-haired Bat, Eastern Red Bat).	• Not applicable.
1397	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Potential impacts to Species at Risk requiring authorizations and regulatory approvals.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will follow potential authorizations under the Endangered Species Act or the Species Conservation Act during the permitting phase.	• Not applicable.
1398	• Wildlife	• Disturbance or loss of Species at Risk bat roosting habitat.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Owner/Operator will engage with the Ministry of Environment, Conservation and Parks (MECP) to determine appropriate permitting requirements for impacts to roosting habitat of the Species at Risk bats.	• Not applicable.
1399	• Wildlife	• Disturbance to wolverine denning habitat and denning individuals during construction.	• Construction	• Government / Agency – Provincial •	• Not applicable. •	• The Owner / Operator will continue to consider the two suspected wolverine denning areas that were identified south of Ogoki River and Plots 7 and 26 as active unless additional surveys are conducted to determine the areas are not being used by wolverines. A 4 km buffer will be applied in which no construction activities will be conducted during the wolverine denning period of February 1 to May 1.

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1400	• Wildlife	• Potential impacts to wolverine requiring regulatory authorization and mitigation.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Owner/Operator will engage with the Ministry of Environment, Conservation and Parks (MECP) to determine the appropriate assumptions that will be required for the permitting or authorization requirements for impacts of the Community Access Road on wolverine.	• Not applicable.
1401	• Provincial Process • Federal Process	• Risks to environmental quality from spills, waste management issues, and emergency events.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will prepare spill contingency, waste management and emergency response plans during detail design. • The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities.	• Not applicable.
1402	• Ungulates	• Information gaps regarding ungulate habitat use and potential Project effects.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities.	• Not applicable.
1403	• Engineering and Design (incl. Bridges and Culverts) • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Road settlement may affect road integrity, safety, and maintenance requirements.	• Operations and Maintenance	• Government / Agency – Provincial	• Not applicable.	• The Owner/Operator of the Community Access Road will monitor and address road settlement during the operations and maintenance phase of the Community Access Road.
1404	• Vegetation	• Loss or alteration of native vegetation and ecological function following construction.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent of the Community Access Road will develop the Vegetation Restoration Plan through engagement and consultation with Indigenous communities and will integrate local Indigenous Knowledge and stewardship protocols where feasible.	• Not applicable.

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1405	• Wildlife • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Noise disturbance to maternity roosting bats during sensitive breeding periods.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Owner / Operator will not cause loud noises including the use of heavy machinery within 50 m of candidate or confirmed maternity roosts from 30 minutes before sunset to 30 minutes after sunrise during the bat maternity roost season (May 1 to August 31).
1406	• Wildlife • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Artificial lighting may disrupt bat behaviour and use of maternity roost habitat.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Owner / Operator will minimize the use of nighttime lighting to the extent possible in proximity to suitable bat maternity roost habitat during the maternity season (May 1 to August 21).
1407	• Wildlife • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Increased risk of wildlife-vehicle interactions and wildlife disturbance during construction.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Owner / Operator will implement wildlife awareness training and implement reduced speed limits during construction as a standard safety measure.
1409	• Wildlife • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Disturbance or injury to wildlife and migratory birds from blasting activities.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Owner / Operator will develop and implement an environmental monitoring program during construction to include policies and actions for avoiding and minimizing impacts to wildlife from blasting and blasting materials. Best management practices for environmental monitoring programs will include recommendations for pre-blast surveys for migratory birds, bird nest sweeps, habitat assessment for migratory birds, and noise and vibration control.
1411	• Ungulates • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Sensory disturbance to caribou during sensitive seasonal periods.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Owner / Operator will obtain authorizations under the Endangered Species Act or Species Conservation Act if activities result in sensory disturbance to caribou during sensitive time periods (May 1 to September 15 for nursery areas, December 1 to March 31 for winter use areas).

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1412	• Acoustic Environment (Noise and Vibration) • Ungulates • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Noise and vibration effects on wildlife and surrounding environmental receptors.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities.	• Not applicable.
1413	• Ungulates • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Disturbance to caribou nursery and wintering areas from construction activities.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Owner / Operator will avoid activities during the sensitive timing windows for caribou (May 1 to September 15 for nursery areas, December 1 to March 31 for winter use areas) within 10 km of known and potential new Category 1 areas, to the extent practical. When activity restrictions cannot be followed, the Ministry of Environment, Conservation and Parks will be engaged to determine alternative approaches.
1414	• Ungulates • Physio, Terrain, Soils	• Disturbance to sensitive esker landforms and ungulate habitat from aggregate extraction.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will complete a comprehensive inventory of proposed borrow sources, including location maps, estimated volumes, material types and confirmation for suitability through preliminary geotechnical investigations for the purposes of aggregate licensing through Ministry of Natural Resources. An application for proposed pits will be submitted and will follow the Aggregate Resources of Ontario: Provincial Standards, Version 1.0, including notifications and consultation. Alternative aggregate sources from bedrock quarries or sand and gravel glacial fluvial deposits that are not esker landforms will be prioritized for use.	• Not applicable.
1415	• Wildlife • Climate Change	• Potential adverse effects on Species at Risk and wildlife requiring legislative compliance.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Owner / Operator will consider applicable legislation following completion of the EA/IS including the Ontario Endangered Species Act (ESA) and Species Conservation Act (SCA).	• Not applicable.

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1416	• Ungulates	• Inadequate monitoring may reduce effectiveness of caribou mitigation measures.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs (including Caribou monitoring), mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities. • The Owner / Operator will invite Indigenous Environmental Monitors to be onsite during construction to confirm mitigations are being implemented properly.
1418	• Ungulates	• Outdated baseline data may result in inaccurate assessment of ungulate effects.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Government / Agency – Provincial	• The Proponent will complete additional baseline monitoring for ungulates if the initiation of construction has been delayed for an extended period of time (e.g., 5+ years) to update an assessment of adverse effects during the Endangered Species Act authorization process.	• The Proponent will complete additional baseline monitoring for ungulates if the initiation of construction has been delayed for an extended period of time (e.g., 5+ years) to update an assessment of adverse effects during the Endangered Species Act authorization process.
1422	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring) • Physio, Terrain, Soils	• Borrow source development may increase disturbance to soils, terrain, and natural features.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will locate borrow sites within the Project Study Area, only along the Preferred Route. The locations will be determined during detail design.	• Not applicable.
1423	• Engineering and Design (incl. Bridges and Culverts)	• Improper drainage design may alter natural hydrology and water movement.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will determine information on cross drainage planning and culver installations for each crossing during detail design.	• Not applicable.
1424	• Engineering and Design (incl. Bridges and Culverts) • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Sedimentation and water quality degradation from construction activities near waterbodies.	• Detail Design / Pre-Construction • Construction	• Government / Agency – Provincial	• The Owner / Operator will prepare construction contracts that require pre-washing of crushed rock when placed within specified radius of waterbodies. These contracts will also require the use and placement of mitigation measures such as silt curtains in direct response to the specific needs of specific waterbodies which will be identified during detail design.	• The Owner / Operator will prepare construction contracts that require pre-washing of crushed rock when placed within specified radius of waterbodies. These contracts will also require the use and placement of mitigation measures such as silt curtains in direct response to the specific needs of specific waterbodies which will be identified during detail design.

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1425	• Vegetation • Birds	• Disturbance or destruction of active migratory bird nests during vegetation clearing.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Owner / Operator will contract qualified staff to conduct non-intrusive nest surveys within seven days of any tree clearing occurring during the migratory bird season. If any active nests or areas where breeding behaviour is observed, it will be flagged and protected with appropriate buffers until nesting is complete. • The Owner / Operator will adhere to all environmental approval conditions, permits and authorizations during construction.
1428	• Wildlife	• Limited understanding of wolverine distribution and habitat use during operations.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will develop wolverine aerial survey methods for inclusion in the Environmental Protection Plan.	• Not applicable.
1429	• Birds	• Loss of nesting habitat and disturbance to birds from vegetation clearing.	• Detail Design / Pre-Construction • Construction	• Government / Agency – Provincial	• The Proponent will develop an Environmental Protection Plan to include mitigation measures for vegetation clearing. These mitigation measures will be re-evaluated during Construction and Operation phases as necessary.	• The Proponent will develop an Environmental Protection Plan to include mitigation measures for vegetation clearing. These mitigation measures will be re-evaluated during Construction and Operation phases as necessary.
1430	• Wildlife • Consultation	• Insufficient coordination may reduce effectiveness of wildlife monitoring programs.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities.	• Not applicable.
1431	• Ungulates	• Insufficient monitoring may limit understanding of Project effects on ungulates.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities.	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
1432	• Ungulates	• Disturbance to caribou during sensitive periods and inadequate monitoring of effects.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will prepare monitoring details for ungulates in the Environmental Protection Plan, and will obtain authorizations under the Endangered Species Act or the Species Conservation Act if works cannot be avoided during the caribou sensitive timing windows.	• The Proponent will prepare monitoring details for ungulates in the Environmental Protection Plan and will obtain authorizations under the Endangered Species Act or the Species Conservation Act if works cannot be avoided during the caribou sensitive timing windows.
1433	• Ungulates	• Wildlife injury, habitat disturbance, or mortality during clearing and blasting activities.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Owner/Operator will preform ground-based or aerial pre-clearing surveys (“wildlife sweeps”) will be completed outside of the sensitive timing windows to detect and document presence of large mammals, migratory bird nests and raptor stick nests and Caribou ahead of clearing and blasting activities. Trained staff will survey the areas to be cleared or blasted, plus a biologically relevant distance, by foot or via aerial transect surveys, all-terrain vehicles, snow machine, or trucks. Wildlife observations and signs will be documented and reported to the contractor’s Environmental Manager and the Environmental Manager will ensure all species at risk observations will be reported to the Natural Heritage Information Centre (NHIC).
1434	• Operations and Maintenance (incl. post-construction monitoring) • Ungulates	• Lack of monitoring details may hinder assessment of Project effects on ungulates.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities. Details about the monitoring programs will be included in the Environmental Protection Plan.	• Not applicable.
1435	• Wildlife	• Uncertainty regarding bat maternity habitat use and Project-related effects.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will consult with the Indigenous communities and federal and provincial regulators to determine the final bat maternity acoustic monitoring requirements.	• Not applicable.
1438	• Wildlife • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Wildlife disturbance from blasting in sensitive habitats.	• Detail Design / Pre-Construction • Construction	• Government / Agency – Provincial	• During Detail Design the Proponent will develop specifications including industry best practices for the owner / operator to employ for blasting activities, including scheduling when in the vicinity of sensitive wildlife habitat.	• During Detail Design the Proponent will develop specifications including industry best practices for the owner / operator to employ for blasting activities, including scheduling when in the vicinity of sensitive wildlife habitat.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
1439	• Wildlife	• Loss or disturbance of bat maternity roost habitat during vegetation clearing.	• Detail Design / Pre-Construction • Construction	• Government / Agency – Provincial	• The Owner / Operator will not undertake clearing in areas occupied with roosting habitat. If clearing is required during the roosting period (May 1 to September 30), the MECP will be engaged to determine if additional exit surveys are appropriate to confirm if potential roost trees are occupied. • The Proponent will obtain authorization under the Endangered Species Act or the Species Conservation Act if clearing of confirmed or potential bat maternity roost habitat is required during the active period. Conditions and site-specific mitigation measures would be developed in consultation with the MECP.	• The Owner / Operator will not undertake clearing in areas occupied with roosting habitat. If clearing is required during the roosting period (May 1 to September 30), the MECP will be engaged to determine if additional exit surveys are appropriate to confirm if potential roost trees are occupied. • The Proponent will obtain authorization under the Endangered Species Act or the Species Conservation Act if clearing of confirmed or potential bat maternity roost habitat is required during the active period. Conditions and site-specific mitigation measures would be developed in consultation with the MECP.
1442	• Wildlife • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Loss of habitat and delayed recovery of disturbed areas following construction.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Owner/Operator will complete progressive revegetation/restoration during construction
1444	• Wildlife • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Disturbance to active wolverine dens during vegetation clearing.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Owner/Operator will implement pre-clearing wolverine surveys, including aerial survey methods where appropriate, prior to vegetation clearing during wolverine denning periods. Details of survey methods and mitigation measures will be included in the Environmental Protection Plan.
1445	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Disturbance to peatlands and sensitive environmental features from construction activities.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent of the Community Access Road will identify and map staging areas, vegetation clearing and grubbing requirements, peatland features, sensitive environmental features, and machinery travel routes during detail design.	• Not applicable.
1446	• Land and Resource Use • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Impacts to timber resources and land use from vegetation clearing and disposal activities.	• Detail Design / Pre-Construction • Construction	• Government / Agency – Provincial	• During detail design, the Proponent of the Community Access Road will coordinate with MNR regarding the use, salvage, disposal, or management of merchantable and non-merchantable timber and will obtain any required burn permits prior to commencing burning activities.	• During detail design, the Proponent of the Community Access Road will coordinate with MNR regarding the use, salvage, disposal, or management of merchantable and non-merchantable timber and will obtain any required burn permits prior to commencing burning activities.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
1447	• Wildlife • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Disturbance or harm to denning wolverines during construction.	• Construction	• Government / Agency – Provincial	• Not applicable.	• If a wolverine den is identified during construction, the Owner/Operator of the Community Access Road will develop a Wolverine Den Management Plan, notify the local MECP Species at Risk Branch office, and notify appropriate Indigenous communities, where requested. • If project activities with the potential to adversely affect denning wolverines cannot be avoided, the Owner/Operator of the Community Access Road will obtain any required authorization under the Endangered Species Act or Species Conservation Act before undertaking those activities.
1451	• Consultation • Ungulates	• Long-term impacts to caribou habitat requiring reclamation and restoration planning.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent of the Community Access Road will develop a Cleanup and Reclamation Plan during detail design that incorporates, where applicable, the Best Management Practices for Mineral Exploration and Development Activities and Woodland Caribou in Ontario. The Proponent will engage with MECP during plan development to identify and confirm appropriate mitigation measures for species at risk.	• Not applicable.
1453	• Wildlife	• Potential impacts to wolverine requiring permitting and mitigation measures.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent of the Community Access Road will engage with the Ministry of the Environment, Conservation and Parks (MECP) to determine the appropriate assumptions that will be required for the permitting or authorization requirements for impacts of the Community Access Road on wolverine.	• Not applicable.
1458	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Disturbance from construction camps, staging areas, and laydown areas.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent of the Community Access Road will determine the location and footprint of construction camps, laydown areas, and staging areas during detail design and will locate them within the Project Study Area.	• Not applicable.
1459	• Provincial Process	• Contamination of land and water resources from accidental spills.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent of the Community Access Road will prepare a Spill Contingency Plan which will incorporate best management practices and include mitigation measures, response timelines, spill response procedure information, equipment, safety, communications and training as part of the tender package.	• Not applicable.
1462	• Engineering and Design (incl. Bridges and Culverts) • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Disturbance associated with turnaround areas and temporary storage locations.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent of the Community Access Road will determine the footprint and locations of turnaround and storage areas during detail design and will locate them within the Project Study Area.	• Not applicable.

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1463	• Acoustic Environment (Noise and Vibration) • Engineering and Design (incl. Bridges and Culverts)	• Residual biodiversity, noise, and vibration effects requiring monitoring and offsetting.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent of the Community Access Road will include details of all required environmental monitoring programs in the Environmental Protection Plan (EPP). The EPP will be prepared and submitted prior to obtaining applicable provincial and federal authorizations. • The Proponent of the Community Access Road will finalize the Terrestrial Biodiversity Offsetting Plan during detail design.	• Not applicable.
1464	• Wildlife • Engineering and Design (incl. Bridges and Culverts)	• Increased traffic may result in wildlife mortality and habitat disturbance.	• Operations and Maintenance	• Government / Agency – Provincial	• Not applicable.	• The Owner/Operator of the Community Access Road will develop and implement a traffic volume monitoring program for the Community Access Road during operations.
1465	• Wildlife • Provincial Process	• Potential effects on Lesser Yellowlegs and associated habitat.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• If authorization is required under the Endangered Species Act or Species Conservation Act, the Proponent of the Community Access Road will provide Lesser Yellowlegs observation locations to MECP as part of the authorization process.	• Not applicable.
1467	• Wildlife	• Wildlife injury or displacement during vegetation clearing and grubbing.	• Detail Design / Pre-Construction • Construction	• Government / Agency – Provincial	• The Owner/Operator of the Community Access Road will conduct wildlife sweeps prior to clearing and grubbing activities. Details of the wildlife sweep methods and procedures will be included in the Environmental Protection Plan.	• The Owner/Operator of the Community Access Road will conduct wildlife sweeps prior to clearing and grubbing activities. Details of the wildlife sweep methods and procedures will be included in the Environmental Protection Plan.
1469	• Wildlife • Ungulates	• Potential impacts on caribou and other wildlife requiring monitoring and adaptive management.	• Detail Design / Pre-Construction • Construction	• Government / Agency – Provincial	• The Proponent and Owner/Operator of the Community Access Road will develop and implement monitoring programs during construction and operations, including caribou monitoring as appropriate. Details of the monitoring programs will be described in the Environmental Protection Plan and finalized through engagement with Indigenous communities and regulators.	• The Proponent and Owner/Operator of the Community Access Road will develop and implement monitoring programs during construction and operations, including caribou monitoring as appropriate. Details of the monitoring programs will be described in the Environmental Protection Plan and finalized through engagement with Indigenous communities and regulators.
1470	• Surface Water	• Impacts to groundwater discharge areas, springs, seeps, and watercourses from crossing installations.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent of the Community Access Road will field verify all water crossings to inform submissions during the permitting process. The Proponent will determine crossing structures during detail design to avoid ephemeral streams, springs, seeps, and other areas of groundwater discharge.	• Not applicable.
1471	• Engineering and Design (incl. Bridges and Culverts)	• Effects on watercourses associated with aggregate source access and crossing construction.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent of the Community Access Road will complete preliminary investigative activities and geotechnical studies during detail design to confirm aggregate pit and quarry locations and associated access water crossings. The Proponent will assess all associated water crossings and obtain any required approvals and permits prior to construction.	• Not applicable.
1473	• Wildlife	• Wildlife mortality or injury from Project activities and vehicle collisions.	• Construction • Operations and Maintenance	• Government / Agency – Provincial	• Not applicable.	• The Owner/Operator of the Community Access Road will develop and implement a reporting protocol for incidental wildlife observations and wildlife-vehicle collisions during construction and operations. Details of the protocol, including reporting procedures and follow-up actions, will be included in the Environmental Protection Plan.

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1474	• Wildlife	• Habitat loss, fragmentation, and reduced wildlife movement/connectivity.	• Detail Design / Pre-Construction • Construction	• Government / Agency – Provincial	• The Owner / Operator will develop an Environmental Protection Plan that will contain mitigation measures that include construction activity timing windows, buffers and disturbance zones, habitat retention and restoration, the implementation of wildlife awareness training and the implementation of best management practices. • The Owner/Operator will maintain a 30 m buffer zone around waterbodies to protect aquatic habitat and maintain wildlife habitat connectivity. The Owner/Operator will limit the clearing of riparian vegetation to the extent practicable and to the requirement of the access road and alignment clearing width only. • Following the completion of construction, the Owner/Operator will reclaim temporary disturbance areas, such as access roads, trails, construction camps, laydown areas, turnaround areas and temporary waterbody crossings. • The Proponent will finalize the Terrestrial Biodiversity Offset Plan during detail design in consultation with Indigenous communities and regulators.	• The Owner / Operator will develop an Environmental Protection Plan that will contain mitigation measures that include construction activity timing windows, buffers and disturbance zones, habitat retention and restoration, the implementation of wildlife awareness training and the implementation of best management practices. • The Owner/Operator will maintain a 30 m buffer zone around waterbodies to protect aquatic habitat and maintain wildlife habitat connectivity. The Owner/Operator will limit the clearing of riparian vegetation to the extent practicable and to the requirement of the access road and alignment clearing width only. • Following the completion of construction, the Owner/Operator will reclaim temporary disturbance areas, such as access roads, trails, construction camps, laydown areas, turnaround areas and temporary waterbody crossings. • The Proponent will finalize the Terrestrial Biodiversity Offset Plan during detail design in consultation with Indigenous communities and regulators.
1475	• Physio, Terrain, Soils	• Wildlife disturbance from blasting noise and vibration.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Proponent will incorporate industry-standard best practices for blasting during detail design including but not limited to controlling blast timing to reduce noise and vibration exposure, implementing setback distances from sensitive wildlife features, using appropriate charge sizes, and adhering to regulatory guidance intended to minimize sensory disturbance to wildlife. • The Owner/Operator will implement industry-standard best practices for blasting during construction. During sensitive periods, the Project will avoid blasting within 4 km of known or suspected wolverine denning areas between January 15 to May 31. Additional sensitive periods for other species are also considered through mitigation measures such as timing windows.
1476	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Permafrost degradation resulting in terrain instability and infrastructure impacts.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Proponent will develop a Permafrost Management Plan during detail design to prioritize the use of fill along the access road to minimize permafrost degradation. • The Owner / Operator will avoid excavation within identified permafrost areas, whenever possible. Should excavation within permafrost be unavoidable, excavation will follow the recommendations outlined in a Permafrost Management Plan.
1477	• Access and Security • Vegetation	• Vegetation disturbance and unsuccessful revegetation following construction activities.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will develop an Environmental Protection Plan during detail design which will include mitigation measures for snow removal, and identify the seed mix to be used for revegetation.	• Not applicable.

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1478	• Fish and Fish Habitat • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Impacts to fish habitat and watercourse crossings from construction activities.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Owner / Operator will contract Environmental Monitors to conduct environmental monitoring activities for the Project, and will confirm Environmental Monitors have appropriate experience and training for their role, preferably as an Environmental Professional. • The Owner / Operator will contract the Environmental Monitors to confirm the locations of waterbody crossings have been identified, and monitor that Fisheries and Oceans Canada (DFO) and Ministry of Natural Resources (MNR) approvals and permits are in place and being adhered to. • The Owner / Operator will contract Environmental Monitors to review the mitigation and enhancement measures outlined in the EA/IS and the Environmental Protection Plan are being implemented during construction.
1479	• Engineering and Design (incl. Bridges and Culverts) • Fish and Fish Habitat	• Altered drainage patterns and fish habitat impacts due to road embankments.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will determine the opportunities for placement of regularly spaced equalization culverts during detail design.	• Not applicable.
1480	• Acoustic Environment (Noise and Vibration)	• Potential operational traffic noise effects at sensitive receptors.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• During detail design, the Proponent of the Community Access Road will review the operational road traffic noise assessment based on the finalized gravel road specifications and surface treatments, determine whether a gravel-road noise adjustment factor is warranted, consult with MTO, and submit any proposed adjustment factors to MTO for approval where appropriate.	• Not applicable.
1481	• Atmospheric Environment	• Air quality degradation at sensitive receptors due to Project emissions.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Proponent will review the atmospheric environment results at specific receptor locations during detail design to understand if further modelling work is needed to implement an appropriate mitigation approach for those receptor locations.
1482	• Atmospheric Environment	• Air emissions from blasting and wood burning affecting air quality.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Owner / Operator will be responsible for the development of management plans to reduce the potential impacts of products of combustion from blasting and wood burning.
1483	• Community Well-Being	• Human health effects related to dust emissions and potential contaminant release.	• Detail Design / Pre-Construction • Construction	• Government / Agency – Provincial	• The Proponent of the Community Access Road will consider further mitigation measures to reduce PM2.5, PM10, and TSP emissions as part of preliminary and detail design. • The Owner/Operation will implement a geochemical monitoring program during construction to confirm the potential for acid rock drainage and / or metal leaching, including contaminants of concern such as arsenic, cobalt and vanadium. Results of this monitoring program will be considered in the development of mitigation measures related to human health effects, as needed.	• The Proponent of the Community Access Road will consider further mitigation measures to reduce PM2.5, PM10, and TSP emissions as part of preliminary and detail design. • The Owner/Operation will implement a geochemical monitoring program during construction to confirm the potential for acid rock drainage and / or metal leaching, including contaminants of concern such as arsenic, cobalt and vanadium. Results of this monitoring program will be considered in the development of mitigation measures related to human health effects, as needed.
1484	• Access and Security	• Snow and ice management potentially contributing to erosion and sedimentation.	• Construction	• Government / Agency – Provincial	• Not applicable.	• The Owner / Operator will remove snow and ice and store it in piles and/or windows adjacent to construction work areas. Snow and ice piles and windows will be accounted for in the erosion and sediment control plan.

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1485	• Engineering and Design (incl. Bridges and Culverts)	• Aggregate extraction activities affecting nearby protected areas.	• Detail Design / Pre-Construction • Construction	• Government / Agency – Provincial	• The Owner / Operator will work with Ontario Parks to determine appropriate setbacks to Provincial Parks and Conservation Reserves Act (PPCRA) boundaries for aggregate extractions.	• The Owner / Operator will work with Ontario Parks to determine appropriate setbacks to Provincial Parks and Conservation Reserves Act (PPCRA) boundaries for aggregate extractions.
1486	• Engineering and Design (incl. Bridges and Culverts)	• Public concern and uncertainty regarding Project cost estimates.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent can accept inquiries regarding the construction cost scenarios, if the Final EA/IS is approved.	• Not applicable.
1487	• Future Indigenous Involvement	• Insufficient Indigenous participation in implementation of mitigation and monitoring commitments.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities. • At this time, there are no funding provisions associated with the environmental advisory committees of the Community Access Road. The Owner / Operator will address future funding requests and opportunities related to the environmental advisory committees.	• Not applicable.
1488	• Operations and Maintenance (incl. post-construction monitoring) • Future Indigenous Involvement	• Illegal dumping and road-related environmental impacts during operations.	• Detail Design / Pre-Construction • Operations and Maintenance	• Indigenous Community	• The Proponent will develop a road monitoring and dumping prevention plan for Operations and Maintenance activities if determined by the regulator to be a required approval condition.	• The Proponent will develop a road monitoring and dumping prevention plan for Operations and Maintenance activities if determined by the regulator to be a required approval condition.
1489	• Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Sedimentation of waterbodies from stockpiles and disturbed soils.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent may increase the 30 m riparian buffer around certain waterbodies with a high slope if it is determined to be suitable or necessary to protect the waterbody from sediment mobilization. • The Proponent will develop an Environmental Protection Plan and an Erosion and Sediment Control Plan during detail design which will include the management of stockpiles and potential erosion and sedimentation from stockpiles.	• The Proponent may increase the 30 m riparian buffer around certain waterbodies with a high slope if it is determined to be suitable or necessary to protect the waterbody from sediment mobilization. • The Proponent will develop an Environmental Protection Plan and an Erosion and Sediment Control Plan during detail design which will include the management of stockpiles and potential erosion and sedimentation from stockpiles.

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1490	• Vegetation	• Residual vegetation and biodiversity losses requiring offsetting measures.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities. • The Proponent will develop and refine the Final Biodiversity Offset Plan during detail design, following confirmation of the final Project footprint and construction methods, in consultation with Indigenous Communities (including Constance Lake First Nation), Environment and Climate Change Canada, and the Ministry of the Environment, Conservation and Parks Species at Risk Branch through the Environmental Advisory Committees.	• Not applicable.
1491	• Wildlife	• Reduced effectiveness of water crossings resulting in wildlife movement impacts.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will develop routine monitoring and maintenance protocol for water crossings during detail design.	• Not applicable.
1492	• Wildlife	• Potential effects on Ptarmigan not adequately captured in monitoring programs.	• Detail Design / Pre-Construction	• Indigenous Community	• During detail design, the Proponent will consider the recommendation for including Ptarmigan in the wildlife monitoring programs.	• Not applicable.
1494	• Consultation	• Insufficient Indigenous engagement throughout Project implementation.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Indigenous Community	• The Proponent and Owner / Operator are committed to ongoing engagement throughout the next stages of the Community Access Road, including the development of a new consultation and engagement program to guide discussions and define Indigenous engagement through detail design, permitting, construction and operation.	• The Proponent and Owner / Operator are committed to ongoing engagement throughout the next stages of the Community Access Road, including the development of a new consultation and engagement program to guide discussions and define Indigenous engagement through detail design, permitting, construction and operation.
1495	• Atmospheric Environment • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Greenhouse gas emissions and air quality impacts associated with diesel use.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will consider completing a Best Available Technology Economically Achievable (BETEA) assessment, and / or implementing meaningful reductions in diesel reliance during detail design.	• Not applicable.

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1496	• Atmospheric Environment • Construction (Camps, Aggregate, Waste Management, Decommissioning Abandonment, Construction Monitoring)	• Air quality impacts and fire risks associated with vegetation burning activities.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent will develop an Environmental Protection Plan to include mitigations for burning to be completed in a controlled and with fire suppression equipment available. • The Owner / Operator is bound by the commitments within the Final EA / IS, the approval conditions provided by the regulators, and regulations such as the Ontario Regulation 207/96 as amended by Ontario Regulation 94/18 under the Forest Fires Prevention Act (Government of Ontario, 1990). • The Owner / Operator will determine the quantities of materials to be burn or chipped during construction with a commitment to reduce the quantity burned.	• The Proponent will develop an Environmental Protection Plan to include mitigations for burning to be completed in a controlled and with fire suppression equipment available. • The Owner / Operator is bound by the commitments within the Final EA / IS, the approval conditions provided by the regulators, and regulations such as the Ontario Regulation 207/96 as amended by Ontario Regulation 94/18 under the Forest Fires Prevention Act (Government of Ontario, 1990). • The Owner / Operator will determine the quantities of materials to be burn or chipped during construction with a commitment to reduce the quantity burned.
1497	• Climate Change	• Uncertainty regarding climate change and sustainability performance of the Project.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will consider the development of a climate and sustainability monitoring program during detail design.	• Not applicable.
1498	• Fish and Fish Habitat • Physio, Terrain, Soils	• Sediment-related effects on fish habitat at waterbody crossings.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will conduct additional pre-construction assessments including sediment quality data collection, for waterbody crossings not previously assessed and/or where monitoring during spring streamflow conditions were not feasible during previous Project stages.	• Not applicable.
1499	• Groundwater • Physio, Terrain, Soils	• Groundwater and surface water impacts from quarry and borrow area development.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will complete further delineation and assessment to permit quarries and borrow areas in accordance with the Aggregate Resources Act. Borrow areas will not be developed directly adjacent to waterbodies, including the Albany River; sufficient buffer distances will be identified and applied. Site-specific mitigation measures will be included within the applicable management plans for the Community Access Road.	• Not applicable.
1500	• Fish and Fish Habitat • Physio, Terrain, Soils	• Erosion and sedimentation affecting water quality and fish habitat.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent will develop the frequency of inspections of erosion and sediment control measures during detail design. • The Owner / Operator will apply erosion and sedimentation control measures and monitoring to temporary crossings, where necessary.	• The Proponent will develop the frequency of inspections of erosion and sediment control measures during detail design. • The Owner / Operator will apply erosion and sedimentation control measures and monitoring to temporary crossings, where necessary.
1502	• Future Indigenous Involvement	• Insufficient Indigenous involvement in mitigation, monitoring, and management planning.	• Construction • Operations and Maintenance	• Indigenous Community	• Not applicable.	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities. The nature of collaboration on road development at Ogoki and Albany River crossing locations (including refinement of mitigation measures and development of management plans) are expected to be defined through environmental advisory committee Terms of Reference.

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1503	• Future Indigenous Involvement • Wildlife	• Potential impacts on wolverine requiring species-specific management and monitoring.	• Detail Design / Pre-Construction	• Indigenous Community	• The Owner / Operator of the Community Access Road will work with regulators to develop Project-specific management and monitoring plans for wolverine if required as part of future project-specific permitting requirements.	• Not applicable.
1504	• Future Indigenous Involvement	• Site-specific environmental sensitivities not adequately considered during implementation.	• Construction • Operations and Maintenance	• Indigenous Community	• Not applicable.	• The Proponent will develop the environmental protection plan to include planning and scheduling information that includes site-specific sensitivities. • The Owner / Operator will obtain necessary permits as required and directed by regulators. • The Proponent and the Owner / Operator will be committed to ongoing engagement throughout the next stages of the Community Access Road.
1505	• Future Indigenous Involvement • Wildlife • Vegetation • Final EA / IS Section	• Potential impacts to traditional plant harvesting areas and wildlife habitat.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent of the Community Access Road will consider Aroland First Nation's recommendations when developing relocation protocols of specific and incorporated at the discretion of the Owner/Operator. • Future funding requests and opportunities will be addressed by the Owner/Operator of the Community Access Road.	• Not applicable.
1506	• Wildlife	• Wildlife mortality and injury events not being adequately tracked or reported.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will determine the inclusions of birds in the reporting protocol for incidental observations and vehicle collisions during development of the Environmental Protection Plan.	• Not applicable.
1507	• Wildlife	• Uncertainty in assessing Project effects on bats and bat habitat.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Indigenous Community	• The Owner / Operator will follow accepted methods for accurate and statistically valid data results for the acoustic recording unit (ARU) analysis, such as Guide for Bat Monitoring in Atlantic Canada, which will be conducted as part of monitoring during the active and post-construction stages.	• The Owner / Operator will follow accepted methods for accurate and statistically valid data results for the acoustic recording unit (ARU) analysis, such as Guide for Bat Monitoring in Atlantic Canada, which will be conducted as part of monitoring during the active and post-construction stages.
1508	• Wildlife • Indigenous Knowledge and Land Use	• Potential impacts to eastern whip-poor-will, short-eared owl, and associated habitat.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will consider targeted surveys for eastern whip-poor-whil and short-eared owl during the pre-construction / detail design phase.	• Not applicable.
1509	• Future Indigenous Involvement • Ungulates	• Limited Indigenous participation in review of monitoring and offsetting programs.	• Construction	• Indigenous Community	• Not applicable.	• The Owner / Operator will address future funding requests from Aroland First Nation associated with the review project-specific monitoring and offsetting plans
1510	• Future Indigenous Involvement • Ungulates	• Potential impacts on ungulates requiring mitigation and monitoring measures.	• Detail Design / Pre-Construction	• Indigenous Community	• The proponent will develop an Environmental Protection Plan, which includes provisions for mitigation and monitoring of Ungulates.	• Not applicable.

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1513	• Country/Traditional Foods • Community Well-Being	• Potential contamination of country/traditional foods affecting community well-being.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent completed the country foods sampling program through engagement with Aroland First Nation and Marten Falls First Nation to characterize a baseline contaminant concentration in key country foods. The dataset collected will be used to inform the Problem Formulation Report in detail design.	• Not applicable.
1514	• Wildlife	• Uncertainty regarding beaver lodge distribution and Project interactions.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent will consider additional aerial surveys on beaver lodges during the next phase of the Community Access Road.	• Not applicable.
1515	• Fish and Fish Habitat	• Disturbance to sensitive fish habitat and Indigenous fishing areas.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities. Input into the design will avoid, where feasible, areas of sensitive fish, fish habitat, and fishing areas that have been identified through Indigenous Knowledge. Permit from the MNR and DFO will be obtained where required.	• Not applicable.
1516	• Wildlife	• Wildlife mortality, habitat fragmentation, and restricted wildlife movement across the road corridor.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Indigenous Community	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities. Discussions will include design measures and wildlife crossing mitigation options at select bridges and culverts located in high-suitability habitat for Species at Risk and species vulnerable to road mortality. • During Construction the Owner / Operator will implement these design features at prioritized locations. During operations, the Owner / Operator will maintain gaps in road berms and snowbanks along the right-of-way and access roads to facilitate wildlife movement.	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities. Discussions will include design measures and wildlife crossing mitigation options at select bridges and culverts located in high-suitability habitat for Species at Risk and species vulnerable to road mortality. • During Construction the Owner / Operator will implement these design features at prioritized locations. During operations, the Owner / Operator will maintain gaps in road berms and snowbanks along the right-of-way and access roads to facilitate wildlife movement.

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1517	• Future Indigenous Involvement	• Insufficient Indigenous participation in environmental management and decision-making.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities.	• Not applicable.
1518	• Vegetation	• Introduction and spread of invasive plant species.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs (including invasive species), mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities.	• Not applicable.
1519	• Future Indigenous Involvement • Atmospheric Environment	• Dust and air quality impacts affecting communities and the environment.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures (including for dust and air), protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities.	• Not applicable.

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1520	• Future Indigenous Involvement	• Potential adverse effects on Indigenous rights and interests identified through ATRI Technical Support Documents.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities.	• Not applicable.
1521	• Future Indigenous Involvement	• Limited community readiness and workforce participation opportunities.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities. Through this advisory committee process, the proponent of the Community Access Road will work collaboratively with participating communities to help determine how community readiness and workforce measures are applied, including identifying appropriate opportunities, training programs, and timing of initiatives to support community participation and workforce transition over the life of the Community Access Road.	• Not applicable.
1522	• Peatlands • Future Indigenous Involvement	• Peatland disturbance and uncertainty regarding monitoring and mitigation implementation.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Indigenous Community	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities. Subcommittees/working groups may be established to address specific topics.	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities. Subcommittees/working groups may be established to address specific topics.

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1523	• Future Indigenous Involvement	• Potential impacts associated with placement of road maintenance facilities and pull-out areas.	• Detail Design / Pre-Construction	• Indigenous Community	• The proponent will continue to consult and engage with Indigenous Communities during detail design, including in the placement and configuration of road maintenance facilities, rest stops and pull-out areas within the corridor assessed in the EA/IS.	• Not applicable.
1524	• Future Indigenous Involvement • Wildlife	• Limited access to wildlife monitoring results by Indigenous communities.	• Detail Design / Pre-Construction • Construction	• Indigenous Community	• The Proponent and Owner/Operator of the Community Access Road will follow existing mechanisms and processes for sharing the Wildlife Monitoring Program with Indigenous communities, including Kashechewan First Nation.	• The Proponent and Owner/Operator of the Community Access Road will follow existing mechanisms and processes for sharing the Wildlife Monitoring Program with Indigenous communities, including Kashechewan First Nation.
1525	• Provincial Process	• Environmental impacts associated with aggregate source development and permitting.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will discuss all plans for bedrock, sand and gravel, and borrow areas / pits locations with MNR in order to understand their permitting requirements.	• Not applicable.
1526	• General	• Limited understanding of peatland road construction methods and associated effects.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The proponent will use real-life images of comparable nature to illustrate the realities of road building in peatlands during detail design, where applicable.	• Not applicable.
1527	• Future Indigenous Involvement	• Reduced access to traditional plant harvesting areas.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will develop mitigation measures specific to the traditional plant harvest areas identified as "inaccessible" through engagement with Indigenous Communities (i.e. Environmental Advisory Committees)	• Not applicable.
1528	• Consultation	• Outstanding Indigenous concerns regarding Project effects and consultation outcomes.	• Detail Design / Pre-Construction	• Indigenous Community	• The Proponent has prepared and provided a detailed Feedback and Response Log in Appendix C of the Final EA / IS. For each submission, the log identifies the comment, our response, and includes specific references to the relevant sections of the Final EA / IS where the comment has been addressed, where applicable. Should Fort Albany First Nation determine that any referenced sections do not adequately address their outstanding concerns, additional comments may be submitted during the regulator-led consultation period for the Final EA / IS, at which time the proponent will provide additional clarification or discussion as applicable.	• Not applicable.
1529	• Operations and Maintenance (incl. post-construction monitoring)	• Surface water degradation from maintenance activities, waste accumulation, and road operations.	• Construction • Operations and Maintenance	• Indigenous Community	• Not applicable.	• The Owner / Operator will be responsible for following mitigation measures aimed at protecting surface water during construction and operations, as well as maintenance of the road, including garbage removal.
1778	• Final EA / IS Section	• Potential environmental effects from routine and emergency maintenance activities.	• Provincial Process • Operations and Maintenance	• Government / Agency – Provincial	• Not applicable.	• The Owner / Operator will follow the requirements of the MTO Class EA which exempts routine and emergency maintenance activities from completing an assessment.

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1779	• Land and Resource Use	• Aggregate extraction affecting ecological integrity of Albany River Provincial Park.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will work with Ontario Parks during detail design to determine an appropriate setback to PPCRA boundaries for aggregate extractions so that extraction does not occur within the park so that the ecological integrity of the Albany River Provincial Park is maintained.	• Not applicable.
1780	• General	• Potential impacts on MNR interests requiring mitigation, monitoring, and management planning.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will consult with the MNR to develop mitigation measures, monitoring programs and management plans related to potential impacts on MNR interests. The final measures and plans will be implemented in accordance with applicable legislative and permitting requirements.	• Not applicable.
1781	• Atmospheric Environment	• Construction-related air quality impacts and uncertainty in emissions predictions.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will undertake additional air quality assessment work, as needed, to address MECP's technical comments on the MFCAR Final Atmospheric Environment Technical Support Document. Consultation with the MECP will occur to determine modeling requirements. The assessment will use five years of meteorological data provided by MECP to support identification of appropriate mitigation measures during detail design.	• Not applicable.
1782	• Community Well-Being	• Potential exposure to contaminants from aggregate source materials affecting human health.	• Detail Design / Pre-Construction	• Government / Agency – Provincial	• The Proponent will undertake characterization of aggregate sources and use this analysis to characterize the potential risk prior to use. Where potential contaminants of concern are identified, the proponent will engage with MECP to determine whether additional risk assessment and/or mitigation measures are required.	• Not applicable.

Table 6: Additional Commitments Resulting from Comments on the Draft Aboriginal and / or Treaty Rights and Interests Technical Support Document, the Final Aboriginal and / or Treaty Rights and Interests Technical Support Document, and the Final Cultural Heritage Technical Support Document

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
1	• Aboriginal and Treaty Rights	• Potential adverse effects on Indigenous interests and treaty rights due to Project activities.	• Detail Design / Pre-Construction • Construction	• Ministry of Natural Resources	• Prior to permitting or construction, the Proponent shall work with MNR to develop mitigation measures, monitoring programs, and management plans related to potential impacts on MNR interests, as applicable. These plans will be shared with MNR for review and comment, and MNR input will be incorporated where appropriate. The proponent shall implement the final measures and plans in accordance with applicable legislative and permitting requirements.	• Prior to permitting or construction, the Proponent shall work with MNR to develop mitigation measures, monitoring programs, and management plans related to potential impacts on MNR interests, as applicable. These plans will be shared with MNR for review and comment, and MNR input will be incorporated where appropriate. The proponent shall implement the final measures and plans in accordance with applicable legislative and permitting requirements.
2	• Aboriginal and Treaty Rights	• Potential impacts to Indigenous land use areas and valued community resources.	• Detail Design / Pre-Construction • Construction	• Marten Falls First Nation	• The Proponent of the Community Access Road will continue to work with Marten Falls First Nation throughout Project planning, including detail design, to review existing or develop appropriate mitigation or avoidance measures, (e.g., where aggregate site buffers greater than 100 m may be required for certain waterbodies), where possible.	• The Proponent of the Community Access Road will continue to work with Marten Falls First Nation throughout Project planning, including detail design, to review existing or develop appropriate mitigation or avoidance measures, (e.g., where aggregate site buffers greater than 100 m may be required for certain waterbodies), where possible.
3	• Aboriginal and Treaty Rights	• Unauthorized access and disturbance of Indigenous lands and resources by construction personnel.	• Detail Design / Pre-Construction • Construction	• Indigenous Communities	• The Owner / Operator of the Community Access Road will implement a policy requiring all construction vehicles to remain on designated access roads, within the construction site, or at the construction camp at all times.	• The Owner / Operator of the Community Access Road will implement a policy requiring all construction vehicles to remain on designated access roads, within the construction site, or at the construction camp at all times.
4	• Aboriginal and Treaty Rights	• Reduced awareness of Indigenous values and concerns, potentially affecting Aboriginal and Treaty Rights.	• Detail Design / Pre-Construction • Construction	• Marten Falls First Nation	• The Proponent and Owner/Operator of the Community Access Road will develop and implement a Cultural Awareness and Community Engagement Plan, in consultation with Marten Falls First Nation, building on the measures outlined in Section 13.1.4 of the Final EA/IS. The Plan will be developed prior to construction and implemented throughout construction and operations. The Plan will include cultural competency training for Project personnel, engagement protocols, and procedures for receiving, documenting, and responding to community concerns.	• The Proponent and Owner/Operator of the Community Access Road will develop and implement a Cultural Awareness and Community Engagement Plan, in consultation with Marten Falls First Nation, building on the measures outlined in Section 13.1.4 of the Final EA/IS. The Plan will be developed prior to construction and implemented throughout construction and operations. The Plan will include cultural competency training for Project personnel, engagement protocols, and procedures for receiving, documenting, and responding to community concerns.
5	• Aboriginal and Treaty Rights	• Loss of access to traditional use plants due to vegetation clearing.	• Detail Design / Pre-Construction • Construction	• Indigenous Communities	• The Owner / Operator of the Community Access Road will provide Indigenous community members with the opportunity to harvest traditional use plants from areas scheduled for land clearing prior to construction, where safe and practicable.	• The Owner / Operator of the Community Access Road will provide Indigenous community members with the opportunity to harvest traditional use plants from areas scheduled for land clearing prior to construction, where safe and practicable.
6	• Aboriginal and Treaty Rights	• Potential adverse effects on trapline use and associated economic interests.	• Detail Design / Pre-Construction	• Ministry of Natural Resources	• The Proponent of the Community Access Road will provide all necessary documentation and information requested by the Province to facilitate compensation claims by affected trapline holders, as appropriate.	• The Proponent of the Community Access Road will provide all necessary documentation and information requested by the Province to facilitate compensation claims by affected trapline holders, as appropriate.
8	• Aboriginal and Treaty Rights	• Disturbance or damage to burial sites and culturally sensitive areas.	• Detail Design / Pre-Construction	• Indigenous Communities	• The Owner/Operator of the Community Access Road will construct the road in a way that minimizes disturbance to culturally sensitive sites wherever possible. • The Owner/Operator of the Community Access Road will work with all potentially impacted Indigenous communities prior to construction to identify potential burial sites and other culturally sensitive areas, and will avoid or minimize disturbance to these areas wherever possible.	• The Owner/Operator of the Community Access Road will construct the road in a way that minimizes disturbance to culturally sensitive sites wherever possible. • The Owner/Operator of the Community Access Road will work with all potentially impacted Indigenous communities prior to construction to identify potential burial sites and other culturally sensitive areas, and will avoid or minimize disturbance to these areas wherever possible.
9	• Aboriginal and Treaty Rights	• Disturbance to cultural, spiritual, and historical sites and values.	• Detail Design / Pre-Construction • Construction	• Indigenous Communities	• The Owner/Operator of the Community Access Road will work with all potentially impacted Indigenous communities to better understand cultural, spiritual, and/or historical areas that may interact with the Construction Disturbance Area and to identify strategies to avoid or minimize disturbance to these areas.	• The Owner/Operator of the Community Access Road will work with all potentially impacted Indigenous communities to better understand cultural, spiritual, and/or historical areas that may interact with the Construction Disturbance Area and to identify strategies to avoid or minimize disturbance to these areas.

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11	• Aboriginal and Treaty Rights	• Inadequate incorporation of Indigenous knowledge and interests in environmental monitoring.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Indigenous Communities	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities.	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities.
12	• Aboriginal and Treaty Rights	• Disruption of Indigenous harvesting activities and harvester safety during construction.	• Construction	• Indigenous Communities	• Not applicable	• The Owner/Operator will, where feasible, implement localized construction restrictions or temporarily pause construction activities in areas where identified Indigenous harvesting activities are occurring and where construction activities may adversely affect harvesting activities or harvester safety, in order to reduce potential interference with harvesting activities. Any such measures will be based on demonstrated conflicts between construction activities and identified harvesting activities. The Owner/Operator will consider information provided by potentially impacted Indigenous communities when determining appropriate measures to reduce potential interference with harvesting activities. Implementation of any construction restrictions or temporary pauses will be subject to regulatory requirements, safety considerations, engineering requirements, and Owner/Operator decision-making. • The Proponent will engage with all potentially impacted Indigenous communities to identify key harvesting periods and harvesting activities that may interact with construction activities, and will consider this information when developing and implementing measures to reduce potential interference with harvesting activities.
13	• Aboriginal and Treaty Rights	• Reduced availability or access to hunting, trapping, fishing, and plant harvesting resources.	• Detail Design / Pre-Construction • Construction	• Indigenous Communities	• The Proponent of the Community Access Road will continue to communicate with all potentially impacted Indigenous communities whose Aboriginal and/or Treaty Rights may be affected by the Community Access Road to better understand specific sites and areas used for hunting, trapping, fishing, and/or traditional use plant harvesting that could be impacted by changes to the availability of resources.	• The Proponent of the Community Access Road will continue to communicate with all potentially impacted Indigenous communities whose Aboriginal and/or Treaty Rights may be affected by the Community Access Road to better understand specific sites and areas used for hunting, trapping, fishing, and/or traditional use plant harvesting that could be impacted by changes to the availability of resources.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
14	• Aboriginal and Treaty Rights	• Potential increase in road-related access pressures affecting wildlife harvesting and resource management.	• Detail Design / Pre-Construction	• Marten Falls First Nation	• The Proponent of the Community Access Road will support Marten Falls First Nation in introductory discussions with the Province on topics related to long-term planning for the community, including signage along the road regarding hunting regulations and restrictions, potential hunting and fishing regulations for the region, monitoring of hunting and fishing activities and other land uses along the road, and the potential development of an Indigenous Conservation Officer Program. The Proponent's role will be limited to facilitating discussions, sharing Project-related information, and communicating relevant Project planning and design considerations. Decisions regarding policy, regulation, enforcement, monitoring, and resource management will remain the responsibility of the appropriate provincial authorities.	• Not applicable
15	• Aboriginal and Treaty Rights	• Limited Indigenous participation in environmental monitoring and stewardship.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Indigenous Communities	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities. • The Proponent of the Community Access Road will provide opportunities for members of all potentially impacted Indigenous communities to participate in Project-related environmental monitoring programs, including consideration of technical training and capacity-building initiatives where feasible.	• The Proponent and/or Owner/Operator of the Community Access Road will establish and maintain an Environmental Advisory Committee, including representatives from interested Indigenous Communities, prior to the commencement of construction and throughout construction and operations. • The Committee will participate in the development, implementation, review, and adaptive management of environmental monitoring programs, mitigation measures, protocols, and management plans. Indigenous interests, perspectives, Indigenous Knowledge, and Indigenous Community land use information provided through the Committee will be considered and documented in Project decision-making. The Committee's Terms of Reference, membership, meeting frequency, reporting procedures, and decision-tracking process will be established in consultation with participating Indigenous Communities. • The Proponent of the Community Access Road will provide opportunities for members of all potentially impacted Indigenous communities to participate in Project-related environmental monitoring programs, including consideration of technical training and capacity-building initiatives where feasible.
16	• Aboriginal and Treaty Rights	• Adverse effects on fish habitat, wildlife habitat, and species at risk important to Indigenous land users.	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• The Proponent of the Community Access Road will design the road and associated bridges to avoid and minimize impacts to sensitive fish and wildlife habitat. Where adverse impacts to protected species or their habitat cannot be avoided, the Proponent will comply with all applicable requirements under the Species Conservation Act, 2025 and associated regulations.	• Not applicable.
17	• Aboriginal and Treaty Rights	• Loss or disturbance of culturally important berry harvesting areas.	• Detail Design / Pre-Construction • Construction	• Marten Falls First Nation	• To the greatest extent feasible, the Proponent of the Community Access Road will continue to engage with Marten Falls First Nation to identify Saskatoon berry and highbush cranberry areas and will seek to avoid or minimize impacts to these areas during clearing for construction.	• To the greatest extent feasible, the Proponent of the Community Access Road will continue to engage with Marten Falls First Nation to identify Saskatoon berry and highbush cranberry areas and will seek to avoid or minimize impacts to these areas during clearing for construction.
18	• Aboriginal and Treaty Rights	• Potential increase in recreational harvesting pressure affecting traditional resource use.	• Operations and Maintenance	• Marten Falls First Nation	• Not applicable.	• The Proponent of the Community Access Road will bring forward and discuss Marten Falls First Nation concerns and recommendations regarding recreational harvesting management and monitoring with the Province.

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19	• Aboriginal and Treaty Rights	• Contamination of land or water resources from accidental spills.	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• The Proponent of the Community Access Road will maintain readily available holding bays and designated gravel- or cement-based backfilling areas during construction activities to minimize the risk of material spills and facilitate timely spill containment and response.
23	• Aboriginal and Treaty Rights	• Risk of spills entering waterways and affecting aquatic resources.	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks • Indigenous Communities	• The Proponent will consider barriers along bridge crossings to reduce the risk of spills entering waterways.	• Not applicable.
28	• Aboriginal and Treaty Rights	• Disruption of traditional travel routes during construction.	• Construction	• Marten Falls First Nation	• Not applicable.	• The Proponent of the Community Access Road will continue to communicate with Marten Falls First Nation to better understand the use and significance of travel routes that may be affected by the Project.
29	• Aboriginal and Treaty Rights	• Temporary restrictions to Indigenous travel and access during construction activities.	• Construction	• Indigenous Communities	• Not applicable.	• The Proponent of the Community Access Road will provide Indigenous communities with advance notice and regular updates regarding location and timing of construction activities, including bridge construction, blasting operations, and specific locations where waterway and overland travel may be temporarily restricted.
30	• Aboriginal and Treaty Rights	• Interruption of established overland and water-based travel routes.	• Construction	• Marten Falls First Nation	• Not applicable.	• Where the Community Access Road intersects with existing travel routes used by Marten Falls First Nation members, the Proponent will create temporary detour routes for snowmobiles, all-terrain vehicles, and canoes with associated signage in both English and Indigenous languages.
31	• Aboriginal and Treaty Rights	• Reduced long-term access across the road corridor.	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ministry of the Environment, Conservation and Parks • Indigenous Communities	• Not applicable.	• The Proponent and the Owner/Operator of the Community Access Road will provide signed access ramps for motorists at locations where the Community Access Road bisects existing overland travel routes, where such ramps are required to maintain access and where their provision is feasible considering safety, engineering, environmental, and property constraints.
32	• Aboriginal and Treaty Rights	• Limited Indigenous involvement in road management matters affecting community interests.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Marten Falls First Nation • Aroland First Nation	• The Owner/Operator of the Community Access Road will support a collaborative role for Marten Falls First Nation and Aroland First Nation in matters related to road maintenance, management, and permitting through information sharing and engagement opportunities. For greater certainty, this commitment does not create shared responsibility, co-management, approval authority, decision-making authority, or any ownership or operational responsibility with respect to road maintenance, operations, permitting, asset management, or regulatory compliance. • The Proponent and Owner/Operator of the Community Access Road will participate in and support discussions with Aroland First Nation and the Province regarding Aroland First Nation's proposed operations. Participation in these discussions is for information-sharing and engagement purposes only and does not create shared responsibility, co-management, approval authority, decision-making authority, or any ownership or operational responsibility with respect to road maintenance, operations, permitting, asset management, or regulatory compliance.	• The Owner/Operator of the Community Access Road will support a collaborative role for Marten Falls First Nation and Aroland First Nation in matters related to road maintenance, management, and permitting through information sharing and engagement opportunities. For greater certainty, this commitment does not create shared responsibility, co-management, approval authority, decision-making authority, or any ownership or operational responsibility with respect to road maintenance, operations, permitting, asset management, or regulatory compliance. • The Proponent and Owner/Operator of the Community Access Road will participate in and support discussions with Aroland First Nation and the Province regarding Aroland First Nation's proposed operations. Participation in these discussions is for information-sharing and engagement purposes only and does not create shared responsibility, co-management, approval authority, decision-making authority, or any ownership or operational responsibility with respect to road maintenance, operations, permitting, asset management, or regulatory compliance.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
33	• Aboriginal and Treaty Rights	• Disruption to navigation and traditional waterway use.	• Construction	• Transport Canada	• Not applicable.	• The Proponent of the Community Access Road will design and construct water crossings to minimize disruption to navigation where feasible. Any temporary navigation closures will be planned in collaboration with all potentially impacted Indigenous communities to minimize disruption to waterway users, including consideration of the timing and duration of closures where feasible, and will be communicated in advance.
35	• Aboriginal and Treaty Rights	• Disruption to community access, harvesting activities, and resource users from maintenance activities.	• Construction • Operations and Maintenance	• Indigenous Communities	• Not applicable.	• The Owner/Operator of the Community Access Road will provide Indigenous Communities with advance notice of and updates on non-routine maintenance activities, including significant quarry activities such as quarry development, expansion, or material extraction, where such activities may reasonably affect community access, travel routes, harvesting activities, or resource users. Routine operational activities will not require advance notification.
37	• Aboriginal and Treaty Rights	• Potential effects of aggregate extraction on Indigenous land use and valued areas.	• Operations and Maintenance	• Marten Falls First Nation	• Not applicable.	• The Proponent of the Community Access Road will engage with Marten Falls First Nation members to inform decisions regarding the use of aggregate sites. Input received will be considered in identifying sites to be used or avoided in order to minimize the potential for, and magnitude of, Project-related adverse effects. The selection of aggregate sources will also be subject to engineering, environmental, operational, property, and regulatory considerations.
38	• Aboriginal and Treaty Rights	• Adverse effects on traditional land and resource use areas.	• Detail Design / Pre-Construction	• Indigenous Communities	• The Proponent of the Community Access Road will continue to engage with members of all potentially impacted Indigenous communities to better understand the importance, nature, and frequency of traditional land and resource use in areas identified through Indigenous Knowledge and community input that may interact with the Project. Information received will be considered during detail design to inform Project siting and support the avoidance or minimization of potential effects on traditional land and resource use.	• Not applicable.
39	• Aboriginal and Treaty Rights	• Interference with cultural practices and Indigenous knowledge transmission.	• Construction	• Indigenous Communities	• Not applicable.	• The Proponent of the Community Access Road will continue to engage with all potentially impacted Indigenous communities to better understand community priorities related to the locations, resources, and timing of cultural traditions, as well as areas of importance for teaching and knowledge sharing. Information shared by Indigenous communities will be considered during Project planning and detail design to support the avoidance or minimization of potential effects on cultural practices and the transmission of Indigenous Knowledge.
40	• Aboriginal and Treaty Rights	• Effects on areas important for practicing and teaching cultural traditions.	• Construction	• Marten Falls First Nation	• Not applicable	• The Proponent of the Community Access Road will consider information provided by Marten Falls First Nation during detail design and, where feasible and subject to engineering, environmental, safety, and regulatory requirements, avoid locating the route alignment within areas identified as important for the practice and teaching of cultural traditions.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
41	• Aboriginal and Treaty Rights	• Reduced accessibility and cultural recognition for Indigenous communities.	• Construction	• Indigenous Communities	• Not applicable.	• The Proponent and Owner/Operator of the Community Access Road will, in consultation with affected Indigenous communities, incorporate local Indigenous language(s) on road signage, where appropriate.
42	• Aboriginal and Treaty Rights	• Disturbance of culturally sensitive areas during excavation and ground disturbance.	• Detail Design / Pre-Construction	• Marten Falls First Nation	• The Proponent of the Community Access Road will continue to work with Marten Falls First Nation to identify and flag culturally sensitive areas prior to construction, where information is provided by the community. Information received will be considered in planning excavation and ground disturbance activities to support the avoidance or minimization of potential effects on culturally sensitive areas, where feasible and subject to safety, engineering, and regulatory requirements.	• Not applicable.
43	• Aboriginal and Treaty Rights	• Disturbance or loss of burial sites and culturally sensitive locations.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Marten Falls First Nation	• The Proponent and Owner/Operator of the Community Access Road will collaborate with Marten Falls First Nation during detail design and construction planning to identify, avoid, and protect burial sites and other culturally sensitive locations.	• The Proponent and Owner/Operator of the Community Access Road will collaborate with Marten Falls First Nation during detail design and construction planning to identify, avoid, and protect burial sites and other culturally sensitive locations.
45	• Aboriginal and Treaty Rights	• Effects on Indigenous land use activities within trapline areas and traditional use areas.	• Detail Design / Pre-Construction • Construction	• Aroland First Nation	• The Proponent of the Community Access Road will continue to engage with Aroland First Nation to better understand the significance, use, and spatial extent of activities associated with trapline areas GE148 and GE153, as well as other areas identified by the community. Information shared through engagement will be considered during detail design and construction planning to identify locations where Project activities may interact with Indigenous land use and to support the avoidance or minimization of potential effects.	• The Proponent of the Community Access Road will continue to engage with Aroland First Nation to better understand the significance, use, and spatial extent of activities associated with trapline areas GE148 and GE153, as well as other areas identified by the community. Information shared through engagement will be considered during detail design and construction planning to identify locations where Project activities may interact with Indigenous land use and to support the avoidance or minimization of potential effects.
46	• Aboriginal and Treaty Rights	• Potential adverse effects on Aboriginal and Treaty Rights.	• Detail Design / Pre-Construction • Construction	• Aroland First Nation	• The Proponent of the Community Access Road will continue to engage and collaborate with Aroland First Nation throughout Project planning, including detail design, to review existing mitigation and avoidance measures and identify or develop additional measures, where feasible, to avoid or minimize potential Project-related effects.	• The Proponent of the Community Access Road will continue to engage and collaborate with Aroland First Nation throughout Project planning, including detail design, to review existing mitigation and avoidance measures and identify or develop additional measures, where feasible, to avoid or minimize potential Project-related effects.
47	• Aboriginal and Treaty Rights	• Reduced access to traditional harvesting areas and resources.	• Detail Design / Pre-Construction • Construction	• Aroland First Nation	• The Proponent of the Community Access Road will continue to engage with Aroland First Nation to identify and better understand specific areas used for hunting, trapping, fishing, and traditional plant harvesting that may be affected by Project activities or changes in resource availability.	• The Proponent of the Community Access Road will continue to engage with Aroland First Nation to identify and better understand specific areas used for hunting, trapping, fishing, and traditional plant harvesting that may be affected by Project activities or changes in resource availability.
50	• Aboriginal and Treaty Rights	• Effects on fish habitat and aquatic resources, including species at risk.	• Construction • Operations and Maintenance	• Fisheries and Oceans Canada • Ministry of the Environment, Conservation and Parks	• The Owner/Operator of the Community Access Road will implement Fisheries and Oceans Canada and applicable Ontario Species at Risk requirements and guidance, including requirements applicable to species listed on the Protected Species in Ontario List (O. Reg. 60/26), as well as timing windows, sediment and erosion control measures, and stormwater management practices, during the construction, upgrade, and operation of water crossings and bridge structures. Particular attention will be given to protecting sensitive fish habitats, including identified spawning areas and sturgeon habitat, where present.	• The Owner/Operator of the Community Access Road will implement Fisheries and Oceans Canada and applicable Ontario Species at Risk requirements and guidance, including requirements applicable to species listed on the Protected Species in Ontario List (O. Reg. 60/26), as well as timing windows, sediment and erosion control measures, and stormwater management practices, during the construction, upgrade, and operation of water crossings and bridge structures. Particular attention will be given to protecting sensitive fish habitats, including identified spawning areas and sturgeon habitat, where present.

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52	• Aboriginal and Treaty Rights	• Disturbance to woodland caribou habitat and movement patterns.	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• The Owner/Operator of the Community Access Road will implement the applicable Best Management Practices for Aggregate Activities and Woodland Caribou in Ontario (Government of Ontario, 2024, as cited in Shared Value Solutions, 2024) and follow the guidance provided in the Recovery Strategy for the Woodland Caribou, Boreal Population, in Canada (Environment Canada, 2012, as cited in Shared Value Solutions, 2024) within areas of known woodland caribou habitat. Where appropriate, mitigation measures will also be considered and applied within potential woodland caribou habitat, based on the best available information, including Boreal Caribou Habitat Mapping and available collaring information.
53	• Aboriginal and Treaty Rights	• Concerns regarding road jurisdiction, access, and control affecting Indigenous interests.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Aroland First Nation	• The Proponent and Owner/Operator of the Community Access Road will engage Aroland First Nation in discussions with the Crown regarding matters related to the road's jurisdiction, access, and control. Opportunities for Aroland First Nation input will be provided during the development of road jurisdiction arrangements, access management frameworks, and control agreements, prior to those arrangements being finalized.	• The Proponent and Owner/Operator of the Community Access Road will engage Aroland First Nation in discussions with the Crown regarding matters related to the road's jurisdiction, access, and control. Opportunities for Aroland First Nation input will be provided during the development of road jurisdiction arrangements, access management frameworks, and control agreements, prior to those arrangements being finalized.
55	• Aboriginal and Treaty Rights	• Inadequate Indigenous involvement in monitoring construction-related environmental and archaeological effects.	• Construction	• Indigenous Communities	• Not applicable.	• The Owner/Operator of the Community Access Road will provide opportunities for and support the participation of archaeological and environmental monitors from potentially impacted Indigenous communities during road construction activities. Funding for these positions will be provided in accordance with applicable requirements and practices, subject to the scope and duration of monitoring activities.
56	• Aboriginal and Treaty Rights	• Effects on cultural traditions and areas used for teaching and knowledge sharing.	• Construction	• Attawapiskat First Nation	• Not applicable.	• The Proponent of the Community Access Road will continue engagement with Attawapiskat First Nation to better understand preferences regarding the locations, resources, and timing of cultural traditions, and areas that are important for teaching and knowledge sharing.
57	• Aboriginal and Treaty Rights	• Disturbance of locations important for cultural practices and knowledge transfer.	• Detail Design / Pre-Construction	• Attawapiskat First Nation	• The Proponent of the Community Access Road will, where feasible, avoid preferred or important locations used by Attawapiskat First Nation for the practice and teaching of cultural traditions during detail design of the route alignment.	• Not applicable.
58	• Aboriginal and Treaty Rights	• Effects on culturally significant waterways and associated traditional uses.	• Detail Design / Pre-Construction • Construction	• Animbiigoo Zaagi'igan Anishinaabek	• The Proponent of the Community Access Road will continue to engage with Animbiigoo Zaagi'igan Anishinaabek to better understand the significance and uses of the Ogoki and Albany Rivers, including specific locations that may interact with the Construction Disturbance Area.	• The Proponent of the Community Access Road will continue to engage with Animbiigoo Zaagi'igan Anishinaabek to better understand the significance and uses of the Ogoki and Albany Rivers, including specific locations that may interact with the Construction Disturbance Area.
59	• Aboriginal and Treaty Rights	• Potential adverse effects on Indigenous land use and cultural values.	• Detail Design / Pre-Construction • Construction	• Animbiigoo Zaagi'igan Anishinaabek	• The Proponent of the Community Access Road will continue to work with Animbiigoo Zaagi'igan Anishinaabek throughout Project planning, including detail design, to review existing or develop appropriate mitigation or avoidance measures, where possible.	• The Proponent of the Community Access Road will continue to work with Animbiigoo Zaagi'igan Anishinaabek throughout Project planning, including detail design, to review existing or develop appropriate mitigation or avoidance measures, where possible.
60	• Aboriginal and Treaty Rights	• Reduced availability or access to traditional harvesting resources.	• Detail Design / Pre-Construction • Construction	• Animbiigoo Zaagi'igan Anishinaabek	• The Proponent of the Community Access Road will continue to communicate with Animbiigoo Zaagi'igan Anishinaabek to better understand specific sites and areas used for hunting, trapping, fishing, and/or traditional use plant harvesting that could be impacted by changes to the availability of resources.	• The Proponent of the Community Access Road will continue to communicate with Animbiigoo Zaagi'igan Anishinaabek to better understand specific sites and areas used for hunting, trapping, fishing, and/or traditional use plant harvesting that could be impacted by changes to the availability of resources.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
61	• Aboriginal and Treaty Rights	• Disruption to navigation and traditional waterway travel.	• Detail Design / Pre-Construction • Construction	• Marten Falls First Nation • Animbiigoo Zaagi'igan Anishinaabek	• The Proponent and Owner/Operator of the Community Access Road will design and construct water crossings on waterways identified by Marten Falls First Nation and Animbiigoo Zaagi'igan Anishinaabek as navigable to minimize disruptions to navigation where feasible. Where temporary navigation closures are required, the Proponent will collaborate with Marten Falls First Nation and Animbiigoo Zaagi'igan Anishinaabek to minimize disruption to waterway users where feasible and will communicate closures in advance, taking into consideration construction schedules, safety requirements, hydraulic conditions, and regulatory requirements.	• The Proponent and Owner/Operator of the Community Access Road will design and construct water crossings on waterways identified by Marten Falls First Nation and Animbiigoo Zaagi'igan Anishinaabek as navigable to minimize disruptions to navigation where feasible. Where temporary navigation closures are required, the Proponent will collaborate with Marten Falls First Nation and Animbiigoo Zaagi'igan Anishinaabek to minimize disruption to waterway users where feasible and will communicate closures in advance, taking into consideration construction schedules, safety requirements, hydraulic conditions, and regulatory requirements.
62	• Aboriginal and Treaty Rights	• Effects on trapline activities and other Indigenous land use interests.	• Detail Design / Pre-Construction • Construction	• Eabametoong First Nation	• The Proponent of the Community Access Road will continue to communicate with Eabametoong First Nation to better understand the significance and current uses of trapline areas GE148, GE153, and other areas identified by the community, including any specific locations that may interact with the Construction Disturbance Area, and will consider this information in project planning, impact assessment, and the development of appropriate mitigation measures, where applicable.	• The Proponent of the Community Access Road will continue to communicate with Eabametoong First Nation to better understand the significance and current uses of trapline areas GE148, GE153, and other areas identified by the community, including any specific locations that may interact with the Construction Disturbance Area, and will consider this information in project planning, impact assessment, and the development of appropriate mitigation measures, where applicable.
63	• Aboriginal and Treaty Rights	• Potential adverse effects identified by Indigenous communities and associated rights.	• Detail Design / Pre-Construction • Construction	• Eabametoong First Nation	• The Proponent of the Community Access Road will continue to engage with Eabametoong First Nation to review existing mitigation and avoidance measures and, where feasible, develop additional measures to address identified concerns related to the Community Access Road.	• The Proponent of the Community Access Road will continue to engage with Eabametoong First Nation to review existing mitigation and avoidance measures and, where feasible, develop additional measures to address identified concerns related to the Community Access Road.
64	• Aboriginal and Treaty Rights	• Disruption of community travel routes and trails during construction.	• Construction	• Eabametoong First Nation	• Not applicable.	• The Proponent of the Community Access Road will continue engagement with Eabametoong First Nation to identify and better understand travel routes and trails that may be affected by construction activities within the Construction Disturbance Area.
65	• Aboriginal and Treaty Rights	• Disruption of traditional travel routes and access.	• Construction	• Fort Albany First Nation	• Not applicable.	• The Proponent of the Community Access Road will continue to engage with Fort Albany First Nation to better understand the use of travel routes and trails that may interact with or be affected by the Construction Disturbance Area.
66	• Aboriginal and Treaty Rights	• Effects on trapline use and traditional activities in identified areas.	• Detail Design / Pre-Construction • Construction	• Ginoogaming First Nation	• The Proponent of the Community Access Road will continue to communicate with Ginoogaming First Nation to better understand the significance and uses of trapline areas GE138 and GE153 and the Painter Lake area, including in terms of specific locations that may interact with the Construction Disturbance Area.	• The Proponent of the Community Access Road will continue to communicate with Ginoogaming First Nation to better understand the significance and uses of trapline areas GE138 and GE153 and the Painter Lake area, including in terms of specific locations that may interact with the Construction Disturbance Area.
67	• Aboriginal and Treaty Rights	• Potential adverse effects on Aboriginal and Treaty Rights.	• Detail Design / Pre-Construction • Construction	• Ginoogaming First Nation	• The Proponent of the Community Access Road will continue to work with Ginoogaming First Nation to review existing or develop appropriate mitigation or avoidance measures, to avoid potential impacts to their Aboriginal and/or treaty rights where possible.	• The Proponent of the Community Access Road will continue to work with Ginoogaming First Nation to review existing or develop appropriate mitigation or avoidance measures, to avoid potential impacts to their Aboriginal and/or treaty rights where possible.
68	• Aboriginal and Treaty Rights	• Disruption of travel routes and trapline access during construction.	• Construction	• Ginoogaming First Nation	• Not applicable.	• The Proponent of the Community Access Road will continue to communicate with Ginoogaming First Nation to better understand the use of trapline area GE138, including in terms of travel routes / trails that may interact with the Construction Disturbance Area.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
69	• Aboriginal and Treaty Rights	• Limited incorporation of Indigenous knowledge into environmental management and monitoring.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Indigenous Communities	• The Proponent of the Community Access Road will engage and involve Indigenous community members, where interested and available, in environmental field studies, monitoring, and data collection activities throughout the Project lifecycle to facilitate the integration of Indigenous Knowledge and community perspectives into monitoring and management programs. Participation opportunities will be provided where appropriate to the activity being undertaken, and subject to safety requirements, scheduling considerations, qualifications, training requirements, and available Project resources.	• The Proponent of the Community Access Road will engage and involve Indigenous community members, where interested and available, in environmental field studies, monitoring, and data collection activities throughout the Project lifecycle to facilitate the integration of Indigenous Knowledge and community perspectives into monitoring and management programs. Participation opportunities will be provided where appropriate to the activity being undertaken, and subject to safety requirements, scheduling considerations, qualifications, training requirements, and available Project resources.
70	• Aboriginal and Treaty Rights	• Potential effects on wildlife movement patterns and Indigenous harvesting activities.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Ministry of Natural Resources	• The Proponent and Owner/Operator of the Community Access Road will consider establishing a process for collecting, documenting, and incorporating seasonal observations from Indigenous hunters, trappers, and land users with firsthand knowledge of caribou and moose movements to complement scientific information and provide real-time information.	• The Proponent and Owner/Operator of the Community Access Road will consider establishing a process for collecting, documenting, and incorporating seasonal observations from Indigenous hunters, trappers, and land users with firsthand knowledge of caribou and moose movements to complement scientific information and provide real-time information.
71	• Aboriginal and Treaty Rights	• Effects on culturally significant locations and traditional land uses.	• Detail Design / Pre-Construction • Construction	• Kashechewan First Nation	• The Proponent of the Community Access Road will continue to communicate with Kashechewan First Nation to better understand the significance and uses of specific locations that may interact with the Construction Disturbance Area.	• The Proponent of the Community Access Road will continue to communicate with Kashechewan First Nation to better understand the significance and uses of specific locations that may interact with the Construction Disturbance Area.
72	• Aboriginal and Treaty Rights	• Potential adverse effects on Aboriginal and Treaty Rights.	• Detail Design / Pre-Construction • Construction	• Kashechewan First Nation	• The Proponent of the Community Access Road will continue to work with Kashechewan First Nation to review existing or develop appropriate mitigation or avoidance measures, to avoid potential impacts to their Aboriginal and/or treaty rights where possible.	• The Proponent of the Community Access Road will continue to work with Kashechewan First Nation to review existing or develop appropriate mitigation or avoidance measures, to avoid potential impacts to their Aboriginal and/or treaty rights where possible.
73	• Aboriginal and Treaty Rights	• Disruption of traditional travel routes and trails during construction.	• Construction	• Kashechewan First Nation	• Not applicable.	• The Proponent of the Community Access Road will continue to communicate with Kashechewan First Nation to better understand the use of travel routes / trails that may interact with the Construction Disturbance Area.
74	• Aboriginal and Treaty Rights	• Disturbance of locations important for cultural traditions and knowledge transfer.	• Detail Design / Pre-Construction	• Indigenous Communities	• The Proponent of the Community Access Road will avoid preferred or important locations used by Indigenous Communities for the practice and teaching of cultural traditions in the route alignment during detail design, where feasible.	• Not applicable.
75	• Cultural Heritage and Resources (Archeology)	• Adverse effects on the Mid-Albany Cultural Heritage Landscape and heritage attributes.	• Detail Design / Pre-Construction	• Ministry of Heritage, Sport, Tourism and Culture Industries	• The Proponent of the Community Access Road will continue to refine the Preferred Route through detail design and micro-siting to avoid adverse effects on the Mid-Albany Cultural Heritage Landscape and associated potential heritage attributes, where feasible.	• Not applicable.
76	• Cultural Heritage and Resources (Archeology)	• Disturbance or damage to cultural heritage features during construction.	• Detail Design / Pre-Construction	• Ministry of Heritage, Sport, Tourism and Culture Industries	• "The Proponent of the Community Access Road will inform construction personnel of the location of the Mid-Albany Cultural Heritage Landscape and its associated heritage attributes prior to construction activities occurring in the area. • The Proponent of the Community Access Road will confine construction-related activities to the proposed right-of-way of the Preferred Route. • In consultation with Marten Falls First Nation and Aroland First Nation, the Owner/Operator of the Community Access Road will establish a construction monitoring process that includes no-go zones and other procedures to avoid or minimize impacts to the heritage attributes of the Mid-Albany Cultural	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
					Heritage Landscape. The location and extent of no-go zones will be informed by completed investigations and community input, where available, and will be implemented where feasible, subject to safety, engineering, and regulatory requirements."	
77	• Cultural Heritage and Resources (Archeology)	• Previously unidentified cultural heritage effects resulting from Project refinements.	• Detail Design / Pre-Construction	• Ministry of Heritage, Sport, Tourism and Culture Industries	• If changes to the Community Access Road result in new anticipated effects or the refinement and/or expansion of the Study Area, a Qualified Person will review the Cultural Heritage Evaluation Report and update its recommendations, as required.	• Not applicable.
78	• Cultural Heritage and Resources (Archeology)	• Potential impacts of exploratory activities on cultural heritage resources.	• Detail Design / Pre-Construction	• Ministry of Heritage, Sport, Tourism and Culture Industries	• Where proposed project related exploratory activities are not subject to, or have not been screened through, the Environmental Assessment process, heritage due diligence may be addressed through a Qualified Person–led review of the proposed activities against existing cultural heritage, archaeological, and Indigenous Knowledge information. • This review may be documented through a brief memorandum to the Project Team confirming that: • Proposed exploratory activities are not adversely impacting the identified or potential heritage attributes or the Cultural Heritage Value or Interest of the Mid-Albany Cultural Heritage Landscape; • No go zones or avoidance areas have been identified where applicable; and • No Heritage Impact Assessment is required at this stage. • Project correspondence and documentation confirming either Environmental Assessment screening or Qualified Person review shall be retained as part of the project record.	• Not applicable.
79	• Cultural Heritage and Resources (Archeology)	• Adverse effects on the Mid-Albany Cultural Heritage Landscape and associated heritage values.	• Detail Design / Pre-Construction	• Ministry of Heritage, Sport, Tourism and Culture Industries	• Until the Mid-Albany Cultural Heritage Landscape (CHL) is formally recognized through completion of the Cultural Heritage Evaluation Report (CHER), exploratory activities will be screened through applicable Ministry review processes and/or by a Qualified Person to identify potential adverse effects on the CHL's heritage attributes or Cultural Heritage Value or Interest. Where adverse effects are identified, a scoped Heritage Impact Assessment will be completed and mitigation measures identified. Following finalization of the CHER, a project-wide Heritage Impact Assessment will be completed, as required.	• Not applicable.
80	• Cultural Heritage and Resources (Archeology)	• Disturbance of archaeological resources and heritage discoveries.	• Detail Design / Pre-Construction	• Ministry of Heritage, Sport, Tourism and Culture Industries	• The Proponent of the Community Access Road will notify Kashechewan First Nation of any archaeological finds during all future archaeology assessments associated with the Community Access Road.	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
304	• Cultural Heritage and Resources (Archeology)	• Impacts to the Mid-Albany Cultural Heritage Landscape during construction activities.	• Construction	• Ministry of Heritage, Sport, Tourism and Culture Industries	• Not applicable.	• The Owner/Operator of the Community Access Road will plan and undertake construction activities to avoid Cultural Heritage impacts, including but not limited to: • Informing construction crews of the location of the potential Mid-Albany Cultural Heritage Landscape and its associated potential heritage attributes. • Confining construction related activities to the proposed right-of-way of the Preferred Route. • Establishing a construction monitoring process which includes implementing no-go zones and procedures to avoid impacts to the heritage attributes of the potential Mid-Albany Cultural Heritage Landscape.
838	• Cultural Heritage and Resources (Archeology)	• Disturbance of archaeological sites and areas of archaeological importance identified by Indigenous communities.	• Detail Design / Pre-Construction	• Ministry of Heritage, Sport, Tourism and Culture Industries	• The Proponent of the Community Access Road will assess any areas of archaeological importance identified by Fort Albany First Nation during the Stage 2 Archaeological Assessment fieldwork, in accordance with the response to Fort Albany First Nation's feedback on the Stage 1 Archaeology Assessment Report.	• Not applicable.
1784	• Aboriginal and Treaty Rights	• Limited sharing of environmental information relevant to Indigenous interests and rights.	• Detail Design / Pre-Construction • Construction	• Kashechewan First Nation	• The Proponent and Owner/Operator of the Community Access will continue to engage with Kashechewan First Nation and provide available existing conditions data from field study programs as such information becomes available during the detail design and construction phases of the Community Access Road.	• The Proponent and Owner/Operator of the Community Access will continue to engage with Kashechewan First Nation and provide available existing conditions data from field study programs as such information becomes available during the detail design and construction phases of the Community Access Road.
1785	• Aboriginal and Treaty Rights	• Reduced access to economic development opportunities associated with the Project.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Red Sky Métis Independent Nation	• The Proponent and the Owner/Operator will provide Red Sky Métis Independent Nation with information regarding economic development opportunities associated with the detail design, construction, operation, and maintenance phases of the Community Access Road.	• The Proponent and the Owner/Operator will provide Red Sky Métis Independent Nation with information regarding economic development opportunities associated with the detail design, construction, operation, and maintenance phases of the Community Access Road.
1786	• Aboriginal and Treaty Rights	• Effects on drinking water sources and culturally or spiritually significant sites.	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Indigenous Communities	• The Proponent and/or Owner/Operator of the Community Access Road will consider the locations of drinking water sources and culturally or spiritually significant sites, as identified through engagement activities, regulatory requirements, environmental studies, and design development, when planning and implementing future field studies and construction-related activities during the detail design, construction, and maintenance phases, as applicable.	• The Proponent and/or Owner/Operator of the Community Access Road will consider the locations of drinking water sources and culturally or spiritually significant sites, as identified through engagement activities, regulatory requirements, environmental studies, and design development, when planning and implementing future field studies and construction-related activities during the detail design, construction, and maintenance phases, as applicable.

Table 7: Additional Commitments Resulting from Government Review Team Comments on Final Environmental Assessment / Impact Statement and from Section 13 of the Final Environmental Assessment / Impact Statement

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
1	• Final EA/IS Section	• Feedback to Responses on Final EA/IS Comments	• Provincial Process	• Ministry of Transportation	• Routine and emergency maintenance activities are exempt activities under the MTO Class EA, as such a Class EA will not be submitted for these.	
2	• Land and Resource Use	• Feedback to Responses on Final EA/IS Comments	• Detail Design	• Ontario Parks	• The Proponent of the Community Access Road will work with Ontario Parks during detail design to determine an appropriate setback to PPCRA boundaries for aggregate extractions so that extraction does not occur within the park and that the ecological integrity of the Albany River Provincial Park is maintained as part of the future Aggregate Resources Act permitting process, and aggregate site plan approvals.	• Not applicable.
3	• General Project	• Feedback to Responses on Final EA/IS Comments	• Detail Design	• Ministry of Natural Resources	• Prior to permitting or construction, the Proponent of the Community Access Road shall work with MNR to develop mitigation measures, monitoring programs, and management plans related to potential impacts on MNR interests, as applicable. These plans will be shared with MNR for review and comment, and MNR input will be incorporated where appropriate. The Proponent shall implement the final measures and plans in accordance with applicable legislative and permitting requirements.	• Not applicable.
4	• Atmospheric Environment (Air Quality)	• Feedback to Responses on Final EA/IS Comments	• Detail Design	• MECP Environmental Monitoring and Reporting Branch	• The Proponent of the Community Access Road will undertake additional air quality assessment work, as needed, to address MECP's technical comments on the MFCAR Final Atmospheric Environment Technical Support Document. The extent of modelling, including the study area and model inputs, will be determined in consultation with MECP. The assessment will use five years of meteorological data provided by MECP. Findings will be used to support the identification of appropriate mitigation measures during the detail design phase of the project.	• Not applicable.
5	• Community Well-Being	• Feedback to Responses on Final EA/IS Comments	• Detail Design	• MECP Technical Assessment and Standards Development Branch	• The Proponent of the Community Access Road will undertake characterization of aggregate sources and use this analysis to characterize the potential risk prior to use. Where potential contaminants of concern are identified, the Proponent will engage with MECP to determine whether additional risk assessment and/or mitigation measures are required.	• Not applicable.
6	• Accidents and Malfunctions	• Final EA/IS Section	• Detail Design • Construction	• Marten Falls First Nation	• The Proponent of the Community Access Road will develop a Cultural Awareness and Community Engagement Plan in collaboration with Marten Falls First Nation, building on the measures outlined in Section 13.1.4 of the Final EA/IS. The plan will include cultural competency training, engagement protocols, and processes for addressing community concerns during construction and operation.	• The Owner/Operator of the Community Access Road will implement the Cultural Awareness and Community Engagement Plan in collaboration with Marten Falls First Nation, building on the measures outlined in Section 13.1.4 of the Final EA/IS. The plan will include cultural competency training, engagement protocols, and processes for addressing community concerns during construction and operation.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
7	• All	• Final EA/IS	• Detail Design • Construction • Operations / Maintenance	• Ministry of Natural Resources	1. The Proponent will work with MNR in the development of the following plans: a) Permafrost Management Plan b) Vegetation Restoration Plan c) Wildlife Management Plan d) Environmental Protection Plan e) Final Biodiversity Offset Plan 2. The Proponent will provide MNR with the opportunity to review the following plans: a) Soil Management Plan b) Spill Prevention and Emergency Response Plan c) Spill Contingency Plan d) Blasting and Communication Management Plan a. Specifically for aggregate sites e) Explosives Management Plan f) Construction Vibration Workplan g) Equipment Mobilization Plan h) Waste Management Plan i) Emergency Response Plan j) Traffic Management Plan k) Environmental Protection Plan a. Including wildlife sweeps, Nest Survey Protocols, Species-specific protection measures l) Ungulates Management and Monitoring Plan m) Communications protocol n) Any plans involving the construction monitoring of surface water, fish and fish habitat, groundwater, geochemical testing, invasive species, peatlands, rare plant and species at risk, vegetation near dewatering sites, nest surveys, caribou and moose. Monitoring for most VCs continues in operation phase where warranted o) Any plans involving additional surveys/mapping/detail design for: aggregate pit/quarry locations, vegetation communities including sensitive areas, temporary access roads, staging areas, camps, and debris and/or timber stockpiles, and traditional use plant harvesting areas p) visual impact monitoring q) Erosion and Sediment Control Plan; r) Construction Best Management Practices Plan s) Dust and Air Quality Management Plans; t) Water taking and discharge plans; u) Detail design for permanent and temporary project infrastructure, including at minimum: a. Identification of all defined and undefined watercourses (permanent, intermittent and ephemeral) that may require installation of a crossing structure. b. hydrologic and hydraulic analyses and calculations for all waterbody crossings; c. flood frequency analyses; d. the design and sizing of equalization culverts; e. proposed flood design standards for temporary bridges and culverts; f. the amount of freeboard proposed for the 1-in-100-year flood event; g. methods and results used to validate design flows; and h. the design standards and road classification for the permanent access road and any temporary access roads. v) Access Management Plan 3. The Proponent will work with MNR on the following monitoring and mitigation plans, prior to permitting and construction, which will include, at minimum, the mitigation measures and processes described in each case and will be implemented in accordance with their terms: a) Long-term monitoring plan will be developed to monitor traffic volume, noise levels and sensory disturbance from the road construction and operations. The plan will provide that the results of the monitoring program will be shared with MNR upon request.	

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
					b) Wetland Emission Monitoring Plan, to monitor for project-level impacts to peatlands. The Plan will include monitoring of carbon dioxide (CO_2) and methane (CH_4) emissions from wetlands before, during, and after construction. c) A plan addressing the long-term operation and maintenance of the road infrastructure, including maintenance associated with culverts and bridges. d) Culvert and Bridge Monitoring and Maintenance Plans including: i. baseline and post-construction inspections, as well as minimum inspection frequencies for routine and post-event monitoring; ii. defined trigger criteria requiring corrective action, including but not limited to ponding or backwatering, fish passage impairment, erosion, scour, sediment accumulation, channel instability, structural deficiencies, or other conditions that may affect fish habitat or water flow; iii. procedures and timelines for implementing and documenting corrective actions; iv. procedures for prompt notification and reporting to MNR of any material issues, incidents, or deficiencies at fish-bearing crossings that may affect fish passage, fish habitat, or the hydraulic function of the crossing. v. In addition, a record of inspections, monitoring results, identified deficiencies, corrective actions, and notifications provided to MNR will be maintained and made available to MNR upon request. 4. The proponent will incorporate, in consultation with MNR, the following mitigation measures into detail design and the Environmental Protection Plan prior to permitting and construction: a) where feasible, mitigation measures intended to minimize impacts to vegetation communities associated with eskers, with particular consideration for rare or uncommon species and ecological communities. The measures will include, measures such as timing windows and other restrictions, to respect the use of eskers by wildlife, including Eastern Migratory caribou and moose, where feasible. b) In-water and restricted activity timing windows for the Northwest Region. c) Where uncertainty exists or species may reasonably be present, despite non-detection, use a precautionary approach and implement timing windows that err on the side of caution d) Work stoppages and notification of MNR where unanticipated fish/fish habitat risks occur e) Avoidance of fish isolation/rescue where feasible; minimize footprint and duration; complete as quickly as practicable; and include prompt notification to MNR if fish mortality/stranding risk is observed or if rescue outcomes indicate unanticipated risk. f) Avoidance of springs, seeps, and other areas of groundwater discharge in all detail design g) A contingency/stop-work protocol for circumstances where field conditions at a crossing differ from those specified in detailed design water crossing requirements (e.g., unexpected channel, flow, fish habitat indicators, or additional water features) including, at minimum, flagging/isolating the location, suspending works within an appropriate buffer, and notifying/engaging MNR to confirm crossing requirements (structure, timing, mitigation) prior to proceeding h) Including monitoring components into the vegetation restoration plan. i) Identifying and incorporating mitigation measures in circumstances where construction and operations have the potential to impact species of special concern. j) Avoidance of migration routes for eastern migratory caribou where possible.	

Table 8: Commitments as per the Technical Support Documents

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
81	• Visual	• Visual	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• For structure finishes Use matte or weathering finishes for steel; consider colour or texture for exposed concrete; non-glare fasteners; avoid bright, specular surfaces.
82	• Visual	• Visual	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• For opening and edge form take meandering clearing limits; keep visible openings at shorelines to the smallest practicable width that meets safety and engineering requirements; feather edges with retained clumps and shrub screens where possible.
83	• Visual	• Visual	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• For shoreline shaping and materials shape abutments and approach embankments to follow adjacent slopes where possible; use local rock; place coarse woody debris to restore texture.
84	• Visual	• Visual	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• For construction lighting prohibit floodlighting; allow downward-facing, fully shielded task lights only; enforce dark hours.
85	• Visual	• Visual	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• For staging outside view cones site temporary staging, batch plants, and stockpiles behind landforms or retained vegetation where possible; cap stack heights below the treeline where feasible.
86	• Visual	• Visual	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• For seasonal windows, schedule visually intensive tasks outside peak paddling and cultural use periods identified with communities and outfitters where feasible.
87	• Visual	• Visual	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• For dust and surface management, apply water or equivalent suppressant; cover or stabilize stockpiles; promptly stabilize exposed soils; clean hard surfaces at staging areas.
88	• Visual	• Visual	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• For progressive reclamation salvage and respread organics; seed with native species or allow natural regeneration; decommission temporary access; restore topography.
89	• Visual	• Visual	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• For operations vegetation management, maintain buffers and feathered edges; favour selective trimming over broad brushing; retain shrubs to screen low views; herbicides will not be used.
90	• Visual	• Visual	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• For night conditions in operation, do not install continuous roadway or bridge lighting; task lighting only for incidents and maintenance.
91	• Visual	• Visual	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• For community specific screening, where validation identifies direct headlight lines of sight, install low vegetated berms or dense planting; micro-site the approach within the right-of-way where practicable.
92	• Visual	• Visual	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• Co-develop the final finish palette, edge form, and opening limits with Indigenous knowledge holders, and community member including site walks, workshops and sharing mock-ups of the final design.	• Not applicable.
93	• Visual	• Visual	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks	• Provide clear advance notices for intrusively visible works; maintain one or more quiet, dark vantage spaces away from the bridge view for elders and youth during key seasons.	• Provide clear advance notices for intrusively visible works; maintain one or more quiet, dark vantage spaces away from the bridge view for elders and youth during key seasons.

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94	• Visual	• Visual	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• Existing condition and follow-up photo-monitoring and ground truthing for absolute no-go locations and recommended at minimum for Albany and Ogoki River Crossings and Marten Falls Community approach (day and night), using fixed, surveyed photograph points.	• Not applicable.
95	• Visual	• Visual	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• Co-development of finishes and edges with Indigenous knowledge holders (including a workshop to share mock-ups, and site walks as necessary to understand the existing visual environment. The goal should be to get the communities feedback on what colours or architectural finishes could feasible be used to reduce the overall visual contrast of the major crossings).	• Not applicable.
96	• Visual	• Visual	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Lighting control: no continuous lighting; task-only, full cut-off fixtures with curfews; night audits.
97	• Visual	• Visual	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Staging of temporary construction areas within the view cone of absolute no-go or priority areas; and providing notice for when construction will occur and where.
98	• Visual	• Visual	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Feathered edges at major crossing locations, or where feasible; retain screening vegetation; naturalised shoreline shaping with local materials.
99	• Visual	• Visual	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Targeted screening at validated headlight lines of sight (low berms/ dense planting) or other protected or priority locations if needed.
100	• Visual	• Visual	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Progressive reclamation of temporary surfaces with organics salvage and native seeding if required.
101	• Visual	• Visual	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Coordination with Northern Road Link and Anaconda and Painter Lake Upgrades on lighting, staging, and sequencing at shared nodes to reduce cumulative duration and clutter where there is spatial and temporal overlap between the Projects.
102	• Land and Resource Use	• Land and Resource Use	• Detail Design / Pre-Construction • Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• It is understood that Marten Falls First Nation will continue to work through the Draft Community Based Land Use Plan to identify Dedicated Protected Areas. It is anticipated that some of the lands adjacent to the Project will be included as part of the Dedicated Protected Area to control development. The Dedicated Protected Area provides protection of watercourses, areas of significance, and other values including remote tourism camps, canoe routes, and trap cabins.	• It is understood that Marten Falls First Nation will continue to work through the Draft Community Based Land Use Plan to identify Dedicated Protected Areas. It is anticipated that some of the lands adjacent to the Project will be included as part of the Dedicated Protected Area to control development. The Dedicated Protected Area provides protection of watercourses, areas of significance, and other values including remote tourism camps, canoe routes, and trap cabins.
103	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Lands for the proposed route require to be withdrawn from mining rights to secure the development of the road.
104	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Engagement will continue with Marten Falls First Nation and Aroland First Nation regarding land and resource use planning context and any measures relevant to Land Use Compatibility as information becomes available through ongoing discussions.

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105	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Constance Lake First Nation currently has a TOR issued for development of its Community Based Land Use Plan; any relevant planning information that becomes available will be considered in the land use planning context. Aroland First Nation may advise on additional measures related to this Valued Component which is subject to ongoing engagement with them.
106	• Land and Resource Use	• Land and Resource Use	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• All maintenance and operation works performed on the Community Access Road must follow provincial standards and specifications for road and water crossing rehabilitation.
107	• Land and Resource Use	• Land and Resource Use	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• All maintenance and operation works must also comply with all environmental legislation.
108	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Limit clearing and use of land within the Parks as much as possible. Temporary work areas such as staging areas should be located outside of park boundaries.
109	• Land and Resource Use	• Land and Resource Use	• Detail Design / Pre-Construction • Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Monitor and limit the development of any side trails /roads that might extend into the park boundaries. Marten Falls First Nation to discuss with Ontario Parks the need for measures to control access into parks and protected areas where applicable.	• Monitor and limit the development of any side trails /roads that might extend into the park boundaries. Marten Falls First Nation to discuss with Ontario Parks the need for measures to control access into parks and protected areas where applicable.
110	• Land and Resource Use	• Land and Resource Use	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Monitor and limit the development of any side trails /roads that might extend into parks.
111	• Land and Resource Use	• Land and Resource Use	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Continued engagement with Ontario Parks on the progress of the road design and advance notice of construction should be provided to give park users ample notice of proposed construction or maintenance occurring near the parks.

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112	• Land and Resource Use	• Land and Resource Use	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Marten Falls First Nation and the owner of the road to have further discussions with Ontario Parks regarding the Albany River crossing (bridge design), access issues, and user impacts as well as need for updates to the Ogoki and Albany River Provincial Parks.
113	• Land and Resource Use	• Land and Resource Use	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Any potential access considerations will be explored further through ongoing consultation with Ontario Parks so that future decisions align with park management objectives and protection priorities.
114	• Land and Resource Use	• Land and Resource Use	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Design and install proper water crossing structures to accommodate flow, drainage, fish passage, and navigation.
115	• Land and Resource Use	• Land and Resource Use	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Minimize vegetation clearing to only what is required for construction and staging.
116	• Land and Resource Use	• Land and Resource Use	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Provide signage along the Preferred Route to inform road users about possible interaction with recreation users, wildlife and restrictions.
117	• Land and Resource Use	• Land and Resource Use	• Detail Design / Pre-Construction • Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• The Proponent will discuss possible restrictions for hunting in the Project Area with the Ministry of Natural Resources.	• The Proponent will discuss possible restrictions for hunting in the Project Area with the Ministry of Natural Resources.
118	• Land and Resource Use	• Land and Resource Use	• Detail Design / Pre-Construction • Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Assess need for parking control along roadway for safety reasons.	• Assess need for parking control along roadway for safety reasons.

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119	• Land and Resource Use	• Land and Resource Use	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Implement progressive reclamation and revegetation of disturbed areas no longer required following construction (laydown areas and construction camps).
120	• Land and Resource Use	• Land and Resource Use	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Consider installation of Crimestoppers signage that discourages poaching and provides the public with a number to call if witnessing poaching or illegal hunting.
121	• Land and Resource Use	• Land and Resource Use	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Assess need for parking control along right-of-way shoulder for safety reasons.
122	• Land and Resource Use	• Land and Resource Use	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• A cleared width of 60 m will be maintained, buffer zones of 30 m will be maintained around waterbodies, and vegetation clearing activities will be limited.
123	• Land and Resource Use	• Land and Resource Use	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Consider engagement with Ministry of Natural Resources to discuss data collection related to fish through broadscale monitoring or creel surveys to monitor populations.
124	• Land and Resource Use	• Land and Resource Use	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Mining companies have indicated their support of the Project due to the increased accessibility that would result to the existing mining claims.
125	• Land and Resource Use	• Land and Resource Use	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Mitigation and enhancement measures for the extractive resource industry include engaging with mine claim holders in the road detail design stage to determine how impacts to any mineral deposits can be minimized and /or how the Project can help to support their activities.

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126	• Land and Resource Use	• Land and Resource Use	• Detail Design / Pre-Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• The owner of the road will consider future mining equipment vehicles use of the road during detail design and maintain to a specific standard to accommodate heavy machinery or the number of vehicles.	• Not applicable.
127	• Land and Resource Use	• Land and Resource Use	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Should any merchantable timber be felled within the Ogoki Forest Management area for the construction of the Project, the value of the timber will be determined.
128	• Land and Resource Use	• Land and Resource Use	• Detail Design / Pre-Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Review of the Ogoki Annual Work Schedule for harvesting and silvicultural operations should continue throughout detail design if trees are required to be harvested for the construction of the road.	• Not applicable.
129	• Land and Resource Use	• Land and Resource Use	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Continued consultation with the Forestry Company regarding road upgrades or planned construction should occur in order to not disrupt harvesting or silvicultural activities.
130	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Engage further with the impacted outfitters / camp owners. A letter was sent in Fall 2024 to known trappers via the Ministry of Natural Resources to advise them of the Preferred Route. Mitigation measures will be updated should input be received by trappers.
131	• Land and Resource Use	• Land and Resource Use	• Detail Design / Pre-Construction • Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Provide at least one year notice to the remote outfitters in advance of construction start.	• Provide at least one year notice to the remote outfitters in advance of construction start.
132	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Implement mitigation measures for air quality, noise, visual, surface water, fish, wildlife, and ungulates as outlined in the appropriate technical support documents.

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133	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• The possession and use of firearms will not be permitted for construction personnel.
134	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Restrict public access to the Community Access Road corridor during construction. Gate temporary access roads and block and restore as soon as possible after they are no longer needed. Permanent access roads used for maintenance activities will be gated while not in use.
135	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Develop and implement an Environmental Protection Plan that includes the following measures to control, and / or restrict public use of access roads during construction: speed limits, gates / manned gates, signage, reduced road standard, felling of timber across temporary access roads after reclaimed, removal of temporary watercourse crossings, reduce traffic by locating camps near construction sites. Posting of restricted access and speed signage will follow the Construction Specification for Temporary Traffic Control Devices (Construction Specification for Temporary Traffic Control Devices, 2016).
136	• Land and Resource Use	• Land and Resource Use	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• During operations and maintenance, this assessment has been assumed that the Community Access Road will be accessible to the public but access roads for aggregate areas and other infrastructure required for maintenance activities will be gated to limit public access. Road maintenance staff will be prohibited from hunting or carrying firearms while working on the Project maintenance.
137	• Land and Resource Use	• Land and Resource Use	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Consider monitoring for vehicle-wildlife collisions and provide annual reports to the Ministry of Natural Resources to analyze impacts to populations due to vehicular collisions.
138	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Mitigation measures include providing notice to trapline holders of timeline and periods of construction and permitting access to Construction Disturbance Area as required for trapping activities throughout the construction phase of the Project.
139	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Signage placed on known areas of trapping access points will notify trappers of future construction activities.

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140	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Refer to mitigation measures for noise and wildlife outlined in the appropriate technical support documents.
141	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Access to the Community Access Road corridor will be restricted during Construction to workers.
142	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Temporary access roads and other temporary construction infrastructure will be reclaimed as quickly as possible following construction.
143	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Beaver lodges will be marked as sensitive sites and protected.
144	• Land and Resource Use	• Land and Resource Use	• Detail Design / Pre-Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• - Consider continued engagement with trappers throughout detail design phase.	• Not applicable.
145	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• An Environmental Protection Plan will be implemented that includes the following measures to control, and / or restrict public use of access roads during construction and operation: speed limits, gates / manned gates, signage, reduced road standard, felling of timber across temporary access roads after reclaimed, removal of temporary watercourse crossings, reduce traffic by locating camps near construction sites. Posting of restricted access and speed signage will follow the Construction Specification for Temporary Traffic Control Devices (Construction Specification for Temporary Traffic Control Devices, 2016).

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
146	• Land and Resource Use	• Land and Resource Use	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• During operations and maintenance, the Community Access Road will be accessible to the public but access roads for aggregate areas and other infrastructure required for maintenance activities will be gated to limit public access. Employees will be prohibited from hunting or carrying firearms while working on the Project maintenance.
147	• Land and Resource Use	• Land and Resource Use	• Detail Design / Pre-Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Any potential projects must undergo their own Environmental Assessment / Impact Assessment process to determine impacts and mitigation and enhancement measures.	• Not applicable.
148	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Communicate with trapline holder in advance of, and during construction through multiple efforts such as letters, signage around the future Construction Disturbance Area.
149	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Permit travel through the project corridor by the trapper during construction.
150	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Involve Marten Falls First Nation in land and resource use planning activities to manage new development.
151	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Engage with Aroland First Nation for additional measures.
152	• Land and Resource Use	• Land and Resource Use	• Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Where relevant, consider any additional Community Based Land Use Plan planning information that becomes available from Constance Lake First Nation through Community Based Land Use Plan Terms of Reference process.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
153	• Land and Resource Use	• Land and Resource Use	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy •	• Not applicable.	• Continued consultation between Ontario Parks and the owner of the road to develop an aesthetically pleasing bridge structure and to determine appropriate access or restrictions at the Albany River.
154	• Land and Resource Use	• Land and Resource Use	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Continued consultation with Ministry of Natural Resources and Ministry of Tourism Culture and Gaming to seek feedback related to potential introduction of access.
155	• Land and Resource Use	• Land and Resource Use	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Collaborate on appropriate signage related to messaging on poaching, legal hunting, fishing or potential portage crossing (at Ogoki River).
156	• Land and Resource Use	• Land and Resource Use	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Engage with Wabassi Resources Inc. regarding their exploratory mining lease on lands of aggregate site SG-20.
157	• Land and Resource Use	• Land and Resource Use	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Engage with GreenForest Management Inc. to discuss the Annual Work Schedules as part of the Ogoki Forest Management Plan (2020-2030, and future plans) to learn of future vegetation clearing which could align with future construction as well as potential access through Painter Lake Road required for forestry operations.
158	• Land and Resource Use	• Land and Resource Use	• Detail Design / Pre-Construction	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• The owner of the road should continue to consult and negotiate with remote outfitters as Detail Design phase progresses.	• Not applicable.
159	• Land and Resource Use	• Land and Resource Use	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Mines • Owner of Road • Ministry of Environment Conservation and Parks • Ministry of Tourism and Gaming • Ministry of Energy	• Not applicable.	• Continued engagement with trapline holders through communication protocols and development of signage and appropriate posting locations that is determined through the detail design phase (in sequence areas of future road construction).

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
160	• Atmospheric Environment	• Atmospheric Environment	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Health Canada • Environment and Climate Change Canada • Ministry of Transportation • Ministry of Natural Resources	• Development of a construction best management practice plan as well as a fugitive dust management plan prior to construction. Examples of best management practices that may be included are: ○ Implement watering during fugitive dust generating activities such as drilling, material handling and on quarry access roads; ○ Limit vehicle speed, where feasible; ○ Strategic haul planning to reduce overall number of haul trips required for aggregate material demands. Consider sourcing material from the closest available material transfer points; ○ Where possible, reduce the quantity of material that is either burned or chipped (i.e., consider salvageable material such as salable lumber); ○ When burning is required, consider avoiding periods where meteorological conditions (e.g., wind speed) that may result in smoke impacting sensitive receptor locations; ○ Maintain equipment as per manufacturing specifications; ○ Implement anti-idling policies or procedures to reduce total vehicle idling times; ○ Implement blasting mitigation (e.g., charge size) in quarries to minimize potential effects; ○ Consider the use explosives with lower sulphur content where possible; ○ Use explosives only if alternate methods of excavation to remove materials for foundation systems and roads are not feasible; and ○ Prepare a Blasting and Communication Management Plan that is in accordance with Ontario Provincial Standard Specification General Specifications for the Use of Explosives (OPSS, 2014) and describes specific measures that would be implemented if blasting is required.	• Development of a construction best management practice plan as well as a fugitive dust management plan prior to construction. Examples of best management practices that may be included are: ○ Implement watering during fugitive dust generating activities such as drilling, material handling and on quarry access roads; ○ Limit vehicle speed, where feasible; ○ Strategic haul planning to reduce overall number of haul trips required for aggregate material demands. Consider sourcing material from the closest available material transfer points; ○ Where possible, reduce the quantity of material that is either burned or chipped (i.e., consider salvageable material such as salable lumber); ○ When burning is required, consider avoiding periods where meteorological conditions (e.g., wind speed) that may result in smoke impacting sensitive receptor locations; ○ Maintain equipment as per manufacturing specifications; ○ Implement anti-idling policies or procedures to reduce total vehicle idling times; ○ Implement blasting mitigation (e.g., charge size) in quarries to minimize potential effects; ○ Consider the use explosives with lower sulphur content where possible; ○ Use explosives only if alternate methods of excavation to remove materials for foundation systems and roads are not feasible; and ○ Prepare a Blasting and Communication Management Plan that is in accordance with Ontario Provincial Standard Specification General Specifications for the Use of Explosives (OPSS, 2014) and describes specific measures that would be implemented if blasting is required.
161	• Atmospheric Environment	• Atmospheric Environment	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Health Canada • Environment and Climate Change Canada • Ministry of Transportation • Ministry of Natural Resources	• Not applicable.	• Development of a Best Management Plan for fugitive dust prior to operation phase of Community Access Road. Examples of best management practices that may be included are: ○ Implement watering or application of Ontario Ministry of Transportation approved dust suppressants that are environmentally friendly; and ○ Keep vegetation such as grasses shrubs and trees along the highway to enhance gravitational deposition of particles and natural windbreaks. Specifics to this are documented in the Rehabilitation Plan.
162	• Atmospheric Environment	• Atmospheric Environment	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Health Canada • Environment and Climate Change Canada • Ministry of Transportation • Ministry of Natural Resources	• Not applicable.	• Consideration of input gathered through other technical monitoring programs specific to potential air quality concerns (i.e., potential dust deposition on vegetation) is completed and evaluated for consideration of future mitigation or monitoring options.

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163	• Atmospheric Environment	• Atmospheric Environment	• Construction	• Ministry of the Environment, Conservation and Parks • Health Canada • Environment and Climate Change Canada • Ministry of Transportation • Ministry of Natural Resources	• Not applicable.	• Development of a construction monitoring plan. This plan may be used to validate that best management practices are being implemented and that mitigation actions taken are effective. Where mitigation is not providing a reduction to overall impacts, mitigation options should be revised;
164	• Atmospheric Environment	• Atmospheric Environment	• Construction	• Ministry of the Environment, Conservation and Parks • Health Canada • Environment and Climate Change Canada • Ministry of Transportation • Ministry of Natural Resources	• Not applicable.	• Re-evaluation of potential significance or effect from temporary work camps is recommended following final design.
165	• Atmospheric Environment	• Atmospheric Environment	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Health Canada • Environment and Climate Change Canada • Ministry of Transportation • Ministry of Natural Resources	• Not applicable.	• Development of a Best Management Plan for fugitive dust prior to operation phase of Community Access Road. Best management practices that may be included within the plan include: ○ Implement watering or application of Ontario Ministry of Transportation approved dust suppressants that are environmentally friendly ○ Keep vegetation such as grasses shrubs and trees along the highway to enhance gravitational deposition of particles and natural windbreaks. Specifics to this are documented in the Revegetation Plan.
166	• Atmospheric Environment	• Atmospheric Environment	• Construction	• Ministry of the Environment, Conservation and Parks • Health Canada • Environment and Climate Change Canada • Ministry of Transportation • Ministry of Natural Resources	• Not applicable.	• Development of a Construction Best Management Practice Plan prior to construction. Examples of best management practices that may be included are: ○ Implement anti-idling policies or procedures to reduce total vehicle idling times ○ Strategic haul planning to reduce the overall number of haul trips required for aggregate material demands. Consider sourcing material from the closest available material transfer points ○ Maintain equipment as per manufacturer specifications ○ Use fuel-efficient vehicles with low emissions
167	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks, and Ontario Ministry of Natural Resources, will be followed during Construction and Operation and Maintenance.
168	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• An Environmental Protection Plan will be developed and implemented that includes policies and actions anticipated to mitigate the attraction of wildlife to the Construction Disturbance Area, particularly near the temporary construction staging areas and temporary construction camps.

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169	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• A Waste Management Plan will be developed and implemented that describe the appropriate management of solid, liquid and hazardous waste, including the following: ○ Construction related garbage, debris, and surplus materials. ○ Hazardous materials such as used oil, filter and grease cartridges, lubrication containers. ○ Domestic garbage and camp waste (i.e., food and grey water). Portable, secure, solid waste receptacles will be provided on work sites, temporary laydown areas and temporary construction camps and periodically emptied.
170	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Construction staff will be educated about hazards of littering and feeding wildlife. A no littering policy will be implemented and enforced.
171	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Feeding and harassment of wildlife on site will be prohibited.
172	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• De-icing salts will not be used on the unpaved Community Access Road during Construction or Operation and Maintenance.
173	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Roadkill will be cleaned up during Construction and Operation and Maintenance following best management practices outlined by Ontario's Ministry of Transportation.
174	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Collect domestic (e.g., food) and industrial (e.g., used oil and lubricants) waste and store temporarily in wildlife proof containers. Transport all waste off-site for recycling or disposal at a licensed disposal facility.

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175	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Potentially toxic materials that attract wildlife would be stored in secure areas inaccessible to wildlife (e.g., buildings, storage areas surrounded by wildlife-proof fencing), and toxic materials would be monitored continuously when removed from storage until they are used or returned to storage to prevent wildlife accessing and ingesting the materials.
176	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Empty chemical toilets on site regularly by a licensed sewage handling contractor.
177	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Roadkill, debris, and waste management as per Ministry of Transportation's Debris Control Maintenance Quality Standard (MQS-331) and Ministry of Transportation's Rest Area/Picnic Site Maintenance Best Practice (MBP-325).
178	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• An Environmental Protection Plan will be implemented that includes policies and actions for avoiding and minimizing the risks of blasting and blasting materials to wildlife.
179	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Blasting work will be completed as quickly as possible to shorten the duration of disturbance.
180	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Quarry blasting, rock crushing and screening, the use of heavy equipment, and other activities that generate loud noises will not be permitted within four kilometres of wolverine dens or suspected wolverine denning sites during the wolverine denning season (January 15 to May 31). If timing windows cannot be adhered to, follow environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks, and Ontario Ministry of Natural Resources.

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181	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Open excavations and blasting areas will be fenced off if left unsupervised to avoid injury and mortality of wildlife.
182	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• A buffer zone will be placed around the perimeter of blasting activities and surrounding forested habitat as described in the Blasting Management Plan.
183	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Blasting will be suspended within four kilometres of known or potential wolverine denning areas during the denning period to minimize sensory disturbances (January 15 to May 31). If timing windows cannot be adhered to, follow environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks, and Ontario Ministry of Natural Resources.
184	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Adhere to federal and provincial regulations and guidelines regarding hazardous substance collection and storage, use and handling, and disposal and treatment, such as the federal Transportation of Dangerous Goods Act, Ontario Dangerous Goods Transportation Act, and the Ontario Environmental Protection Act.
185	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Adhere to federal and provincial regulations and guidelines regarding hazardous substance collection and storage, use and handling, and disposal and treatment, such as the federal Transportation of Dangerous Goods Act, Ontario Dangerous Goods Transportation Act, and the Ontario Environmental Protection Act.
186	• Wildlife	• Wildlife	• Detail Design / Pre-Construction • Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Limit the project footprint to the extent feasible.	• Limit the project footprint to the extent feasible.

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187	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Retain compatible species (e.g., shrub vegetation, compatible trees, and coarse woody debris) where practicable and where safe to do so.
188	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Avoid clearing maternity roost habitat during the bat maternity roosting period (May 1 to September 30). If potential maternity roost habitat is to be removed during the roosting period, it will be subject to the Endangered Species Act, 2007 permitting requirements and site-specific mitigation measures that would be developed in consultation with the Ministry of the Environment, Conservation and Parks Species at Risk Branch. • All appropriate permits for this work will be acquired in consultation with the Ministry of the Environment, Conservation and Parks Species at Risk Branch.
189	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Temporary access roads and trails, construction camps, turnaround areas, waterbody crossings and temporary laydown areas will be reclaimed at the end of Construction.
190	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Buffer zones of 30 m will be maintained around waterbodies, clearing of riparian vegetation will be limited to the extent practicable and to the requirement of the access road and alignment clearing width only.
191	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	Not applicable.	• Follow best management practices and environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks, and Ontario Ministry of Natural Resources.

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192	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	Not applicable.	• An Environmental Protection Plan and a Cleanup and Reclamation Plan will be developed and implemented. Where necessary, seedling planting will occur to improve reclamation success on areas of temporary disturbance (e.g., temporary access roads, laydown areas, camps, and workspaces) where habitat enhancement is identified. Reclamation plans will be confirmed through engagement with Indigenous communities, the Ministry of Natural Resources, the Ministry of the Environment, Conservation, and Parks Species at Risk Branch, and local foresters. Effectiveness of reclamation efforts will be monitored and managed post-construction, including confirmation that vegetation communities that naturally regenerate (or were planted) are similar to adjacent vegetation communities. If required, adaptive management will be employed to modify or enhance any reclamation efforts.
193	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	Not applicable.	• A Preliminary Biodiversity Offset Plan has been developed to offset little brown myotis and northern myotis habitat loss. As the Biodiversity Offset Plan is developed, it is anticipated that artificial bat roost structures will be installed within temporary disturbance areas and in appropriate areas within the effects assessment Local Study Area to mitigate the removal of tree roosts for little brown myotis and northern myotis.
194	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	Not applicable.	• During highway maintenance, Ministry of Transportation's Best Management Practices for Species at Risk Protection During Maintenance Activities (Ministry of Transportation. 2017a) will be considered and included in the development of the Environmental Protection Plan.
195	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	Not applicable.	• The use of nighttime lighting around bat roosting areas will be minimized to the extent possible during Construction. The idling of construction vehicles and equipment will be limited. Night work will be avoided where feasible.
196	• Wildlife	• Wildlife	• Detail Design / Pre-Construction • Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Mitigation measures such as restricting tree clearing within bat maternity roost habitat during the maternity roost season (May 1 to September 30) is expected to avoid and limit sensory disturbance on maternity colonies. If potential maternity roost habitat is to be removed during the roosting period, it will be subject to Endangered Species Act, 2007 permitting requirements and site-specific mitigation measures that would be developed in consultation with the Ministry of the Environment Conservation and Parks, Species at Risk Branch. Mitigation will include pre-clearing surveys to determine if potential maternity roost trees are present in the area to be cleared. All appropriate permits for this work will be acquired in consultation with the Ministry of the Environment Conservation and Parks, Species at Risk Branch.	• Mitigation measures such as restricting tree clearing within bat maternity roost habitat during the maternity roost season (May 1 to September 30) is expected to avoid and limit sensory disturbance on maternity colonies. If potential maternity roost habitat is to be removed during the roosting period, it will be subject to Endangered Species Act, 2007 permitting requirements and site-specific mitigation measures that would be developed in consultation with the Ministry of the Environment Conservation and Parks, Species at Risk Branch. Mitigation will include pre-clearing surveys to determine if potential maternity roost trees are present in the area to be cleared. All appropriate permits for this work will be acquired in consultation with the Ministry of the Environment Conservation and Parks, Species at Risk Branch.

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197	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• During Construction, access to the Community Access Road corridor will be restricted to construction personnel.
198	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Control lighting required for construction of the Project, including direction and timing to avoid effects on bats, while meeting operational health and safety requirements.
199	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	Not applicable.	• Noise-producing equipment will be fitted with noise-reducing components, where feasible, and these components will be maintained.
200	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Wildlife awareness training will be provided for road construction workers to reduce vehicle speeds and associated noise and dust emission levels.
201	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Industry best practices will be used for blasting activities, including scheduling when in the vicinity of sensitive wildlife sites.
202	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Vegetation buffers will be retained around quarries to reduce noise, where feasible.

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203	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Speed limits will be posted and enforced to reduce vehicle speeds and associated noise.
204	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Control lighting required for Operation of the Project, including direction and timing to avoid effects on bats, while meeting operational health and safety requirements.
205	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Contractors employed to conduct maintenance activities will follow the same mitigation as outlined for Construction.
206	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• A Preliminary Biodiversity Offset Plan has been developed to achieve no net loss of little brown myotis and northern myotis habitat. Over the long term, measures undertaken as part of the Biodiversity Offset Plan would be implemented to achieve a net increase in functional bat habitat relative to existing conditions.
207	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Minimize habitat loss and alteration to the extent possible.
208	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Clearing and grubbing in areas with potential bat roosting habitat will be undertaken outside of the summer roosting period (May 1 to September 30). If clearing or grubbing are required during the summer roosting period, the Ministry of the Environment, Conservation, and Parks Species at Risk Branch will be engaged. Depending on the outcome of the discussion with the Ministry of the Environment, Conservation, and Parks, exit surveys may be conducted prior to clearing in very limited areas. Surveys would be conducted to search the Construction Disturbance Area for trees that could provided roosts for little brown myotis and northern myotis (candidate

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
						roost trees). Candidate roost trees are defined as trees greater than ten centimetres diameter at 1.3 metres above the ground, with exfoliating bark, cracks, crevices, or cavities. Any candidate roost trees will be flagged for avoidance during the summer roosting period. Clearing will not be undertaken in areas with occupied roosting habitat.
209	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Environmental training for workers will include information on species at risk bat roost identification and procedures to follow if a potential bat roost is identified.
210	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Clearing and grubbing in areas with potential bat roosting habitat will be undertaken outside of the summer roosting period (May 1 to September 30). If clearing or grubbing are required during the summer roosting period, the Ministry the Environment, Conservation and Parks Species at Risk Branch will be engaged. Depending on the outcome of the discussion with the Ministry of the Environment, Conservation, and Parks, exit surveys may be conducted prior to clearing in very limited areas. Clearing will not be undertaken in areas with occupied roosting habitat.
211	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Implement an Environmental Protection Plan that includes the following measures to minimize collisions between wildlife and vehicles during Construction.
212	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Provide driver training to construction workers to understand the importance of reducing vehicle speeds, spread awareness of local wildlife, give wildlife the right-of-way, communicate the presence of wildlife along access roads and on site to other employees, and mandatory reporting of wildlife collisions.
213	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Worker transportation to site will be coordinated to reduce traffic volumes.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
214	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Employees and contractors will be subject to restrictions while working including prohibition of personal snowmobiles, all terrain vehicles and other motorized recreational vehicles; and speeding on roads. Confining vehicle traffic to approved right of-way, workspace, and access roads.
215	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• A reporting protocol and system will be developed to report incidental wildlife observations and wildlife-vehicle collisions during Construction.
216	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Blocking winter roads and temporary access routes and trails no longer required during Construction.
217	• Wildlife	• Wildlife	• Detail Design / Pre-Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Incorporating standard safe road design configurations and construction methods in the detailed Project design.	• Not applicable.
218	• Wildlife	• Wildlife	• Detail Design / Pre-Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Consideration will be given during detail design to installing signage where the road crosses the Albany River and the Ogoki River (important bat flyways) to notify motorists of the elevated risk of collisions with bats in these areas at night between May and November to encourage reduced travel speeds. Operation and Maintenance traffic will be restricted to approved right-of-way, workspace and access roads or trails.	• Consideration will be given during detail design to installing signage where the road crosses the Albany River and the Ogoki River (important bat flyways) to notify motorists of the elevated risk of collisions with bats in these areas at night between May and November to encourage reduced travel speeds. Operation and Maintenance traffic will be restricted to approved right-of-way, workspace and access roads or trails.
219	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Provide driver training to Maintenance workers to understand the importance of reducing vehicle speeds, spread awareness of local wildlife, give wildlife the right-of-way, communicate the presence of wildlife along access roads and on site to other employees, and mandatory reporting of wildlife collisions.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
220	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Signage will be posted in areas where wildlife is regularly observed.
221	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• A reporting protocol and system will be developed to report incidental wildlife observations and wildlife-vehicle collisions during Operation and Maintenance.
222	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Blocking winter roads and temporary access routes and trails no longer required as Maintenance proceeds.
223	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• - Limit the Project footprint to the extent feasible.
224	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Use existing access roads where possible.
225	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• A cleared width of less that 100 m will be maintained unless otherwise required for construction

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226	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Clearing and grubbing will be conducted outside of the wolverine denning period (January 15 to May 31).
227	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• If clearing or grubbing must occur during the wolverine denning period, areas with potential dens will be surveyed prior to construction activities. The details of the wolverine aerial survey methods will be described in the Environmental Protection Plan. Construction activities will not be conducted within four kilometres of active wolverine dens during the denning period.
228	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• An Environmental Protection Plan and a Cleanup and Reclamation Plan will be developed and implemented. Where necessary, seedling planting will occur to improve reclamation success on areas of temporary disturbance (e.g., temporary access roads, laydown areas, camps, and workspaces) where habitat enhancement is identified. Reclamation plans will be confirmed through engagement with Indigenous communities, the Ministry of Natural Resources, the Ministry of the Environment, Conservation, and Parks Species at Risk Branch, and local foresters. Effectiveness of reclamation efforts will be monitored and managed post-construction, including confirmation that vegetation communities that naturally regenerate (or were planted) are similar to adjacent vegetation communities. If required, adaptive management will be employed to modify or enhance any reclamation efforts.
229	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• All construction activities that produce sensory disturbance will be avoided within four kilometres of active wolverine dens.
230	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Construction traffic will be restricted to designated areas.

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231	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Unnecessary idling of vehicles and equipment will be limited on construction sites.
232	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• If any periodic quarry operations planned to occur during the denning period, these activities will be preceded by wolverine den surveys conducted within four kilometres of quarry operations. The details of the wolverine aerial survey methods will be described in the Environmental Protection Plan. Quarry operations will not be conducted within four kilometres of active wolverine dens during the denning period.
233	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• The Project footprint is designed to minimize vegetation clearing and access road requirements to the extent feasible (e.g., concentrate temporary activities spatially, retain habitat outside of scoped Construction Disturbance Area, restrict construction vehicle traffic to established access roads where feasible).
234	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Restrict wildlife access to waste (e.g., collect domestic and industrial waste and store in temporary containers until transported off-site, empty chemical toilets regularly, prohibit littering, prohibit feeding and harassment of wildlife).
235	• Wildlife	• Wildlife	• Detail Design / Pre-Construction • Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Design and construct temporary linear features to decrease predator efficiency (e.g., retain vegetation under two metre, minimize width of linear features, switch backs and bends in temporary road construction), and reduce predator mobility (e.g., not removing snow unless necessary).	• Design and construct temporary linear features to decrease predator efficiency (e.g., retain vegetation under two metre, minimize width of linear features, switch backs and bends in temporary road construction), and reduce predator mobility (e.g., not removing snow unless necessary).
236	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• During Construction, the ongoing use of inactive areas by predators will be minimized through physical control measures such as rollback, removal of creek crossings, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access.

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237	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• To minimize ongoing attraction of predators to the Project area, roadkill will be cleaned up following best management practices outlined by Ontario's Ministry of Transportation and wildlife access to waste will be restricted.
238	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Progressive reclamation and revegetation would be implemented as non-permanent features would be decommissioned and reclaimed or revegetated naturally.
239	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• During Operation and Maintenance, the ongoing use of inactive areas by predators will be minimized through physical control measures such as rollback, removal of creek crossings, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access.
240	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• - Herbicides will not be used during Construction.
241	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Effects on denning areas will be minimized to the extent possible. Areas with potential to support wolverine denning will be identified through a review of plant community mapping (looking for communities that may contain the microhabitat features (e.g., fallen trees and blowdown, boulders and variable terrain) that wolverine require for denning), and targeted aerial site reconnaissance during the same denning period that construction activities are planned to survey for signs of potential denning areas prior to the initiation of Construction (e.g., clearing and grubbing).
242	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• If a wolverine den is identified during Construction, and should this timing not be able to be maintained within the buffer widths identified (i.e., four kilometres), local Ministry of the Environment, Conservation and Parks' Species at Risk Branch offices will be contacted to develop a den management plan and appropriate Indigenous communities will be notified, where requested. The Project will avoid activities within four kilometres of the den during the denning period that would adversely affect wolverine or seek and authorization under the ESA or SCA, as appropriate, prior to conduction activities.

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243	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Environmental training for workers will include information on wolverine den identification and procedures to follow if a den is identified.
244	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• If a wolverine den is identified during Operation and Maintenance, and should this timing not be able to be maintained within the buffer widths identified (i.e., four kilometres), local Ministry of the Environment, Conservation and Parks' Species at Risk Branch offices will be contacted to develop a den management plan and appropriate Indigenous communities will be notified, where requested. The Project will avoid activities within four kilometres of the den during the denning period that would adversely affect wolverine or seek and authorization under the ESA or SCA, as appropriate, prior to conduction activities.
245	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Implement an Environmental Protection Plan that includes the following measures to minimize collisions between wildlife and vehicles during Construction: provide driver training to Construction workers to understand the importance of reducing vehicle speeds, spread awareness of local wildlife, give wildlife the right-of-way, communicate the presence of wildlife along access roads and on site to other employees, and mandatory reporting of wildlife collisions.
246	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• At watercourse crossings that occur within wolverine high-use areas and are on the north-south segment of the preferred route (WA-11, WA-15 and WA-18), modified bridge and bridge embankments will be designed to incorporate terrestrial pathways adjacent to the aquatic habitat and allow for safe wildlife passage, where feasible given land cover considerations. These design features include increasing the height of bridge to minimum 4 m vertical clearance, using natural substrates on the bridge embankments, and allowing for an unobstructed line of sight on either side of the bridge.
247	• Wildlife	• Wildlife	• Detail Design / Pre-Construction • Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Wildlife passage modifications to other bridge designs, including bridges that occur on the east-west trending segment of the Community Access Road, will be considered in future design phases.	• Wildlife passage modifications to other bridge designs, including bridges that occur on the east-west trending segment of the Community Access Road, will be considered in future design phases.
248	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Pits and quarries and other infrastructure required for maintenance activities will be gated to limit public access.

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249	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• De-icing salts will not be used on the unpaved Community Access Road during Construction or Operation and Maintenance.
250	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Operation and Maintenance traffic will be restricted to approved right-of-way, workspace and access roads or trails.
251	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Access roads used for permanent maintenance activities will be blocked while not in use.
252	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Employees will be prohibited from hunting or carrying firearms while working on the Project maintenance.
253	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Implement an Environmental Protection Plan that includes the following measures to control, and / or restrict public use of access roads during Construction: speed limits, gates / manned gates, signage, reduced road standard, felling of timber across temporary access roads after reclaimed, removal of temporary watercourse crossings, reduce traffic by locating camps near construction sites. Posting of restricted access and speed signage will follow the Construction Specification for Temporary Traffic Control Devices (OPSS, 2016).
254	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Follow best management practices and environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks, and Ontario Ministry of Natural Resources. Temporary access roads and other temporary construction infrastructure will be reclaimed as quickly as possible following Construction. As part of the reclamation of temporary access roads, access to these roads will be physically blocked to decrease public use.

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255	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Employees will be prohibited from hunting or carrying firearms while working on the Project maintenance.
256	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Implement an Environmental Protection Plan that includes the following measures to control, and / or restrict public use of access roads during Operation and Maintenance: speed limits, gates / manned gates, signage, reduced road standard, felling of timber across temporary access roads after reclaimed, removal of temporary watercourse crossings, reduce traffic by locating camps near construction sites. Posting of restricted access and speed signage will follow the Construction Specification for Temporary Traffic Control Devices (OPSS, 2016).
257	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• During Operation and Maintenance, the Community Access Road will be accessible to the public but access roads for aggregate areas and other infrastructure required for maintenance activities will be gated to limit public access.
258	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• A proactive outreach and education program aimed at increasing awareness of the presence of wolverine within the area, the potential effects of incidental trapping on wolverine populations, and effective mitigation measures that reduce the likelihood of incidental wolverine trapping as outlined in Best Management Practices to Avoid Wolverine (OFMF 2018) will be developed and implemented.
259	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Use existing access roads where possible.
260	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Any American marten dens observed will be marked as sensitive sites and isolated.

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261	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• An Environmental Protection Plan and a Cleanup and Reclamation Plan will be developed and implemented. Where necessary, seedling planting will occur to improve reclamation success on areas of temporary disturbance (e.g., temporary access roads, laydown areas, camps, and workspaces) where habitat enhancement is identified. Reclamation plans will be confirmed through engagement with Indigenous communities, the Ministry of Natural Resources and local foresters. Effectiveness of reclamation efforts will be monitored and managed post-construction, including confirmation that vegetation communities that naturally regenerate (or were planted) are similar to adjacent vegetation communities. If required, adaptive management will be employed to modify or enhance any reclamation efforts.
262	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Unnecessary idling of vehicles and equipment will be limited on construction sites.
263	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• The Project footprint is designed to minimize vegetation clearing and access road requirements to the extent feasible (e.g., concentrate temporary activities spatially, retain habitat outside of scoped Construction Disturbance Area, restrict construction vehicle traffic to established access roads where feasible).
264	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• During Construction, the ongoing use of inactive areas by predators will be minimized through physical control measures such as rollback, removal of creek crossings, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access.
265	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• During Operation and Maintenance, the ongoing use of inactive areas by predators will be minimized through physical control measures such as rollback, removal of creek crossings, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access.

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266	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Environmental training for workers will include information on American marten den identification and procedures to follow if a den is identified.
267	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• If an active den is identified during active construction, including during vegetation removal, work will stop and local Ministry of Natural Resources offices will be contacted immediately. The den will be clearly marked, a 100 m buffer surrounding the den will be established and no vegetation removal will proceed within that buffer until Ministry of Natural Resources is engaged.
268	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Maintenance traffic will be restricted to designated areas.
269	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Posting of appropriate speed limits, crossing and wildlife warning signage.
270	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• De-icing salts will not be used on the unpaved Community Access Road during Construction or Operation and Maintenance.
271	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Operation and Maintenance traffic will be restricted to approved right-of-way, workspace and access roads or trails.

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272	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Implement an Environmental Protection Plan that includes the following measures to control, and / or restrict public use of access roads during Construction and Operation and Maintenance: speed limits, gates / manned gates, signage, reduced road standard, felling of timber across temporary access roads after reclaimed, removal of temporary watercourse crossings, reduce traffic by locating camps near construction sites. Posting of restricted access and speed signage will follow the Construction Specification for Temporary Traffic Control Devices (OPSS, 2016).
273	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Implement an Environmental Protection Plan that includes the following measures to control, and / or restrict public use of access roads during Operation and Maintenance: speed limits, gates / manned gates, signage, reduced road standard, felling of timber across temporary access roads after reclaimed, removal of temporary watercourse crossings, reduce traffic by locating camps near construction sites. Posting of restricted access and speed signage will follow the Construction Specification for Temporary Traffic Control Devices (OPSS, 2016).
274	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• During Operation and Maintenance, the Community Access Road will be accessible to the public but access roads for aggregate areas and other infrastructure required for maintenance activities will be gated to limit public access.
275	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Any beaver lodge observed will be marked as sensitive and protected.
276	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• An Environmental Protection Plan and a Cleanup and Reclamation Plan will be developed and implemented. Where necessary, seedling planting will occur to improve reclamation success on areas of temporary disturbance (e.g., temporary access roads, laydown areas, camps, and workspaces) where habitat enhancement is identified. Reclamation plans will be confirmed through engagement with Indigenous communities, the Ministry of Natural Resources and local foresters. Effectiveness of reclamation efforts will be monitored and managed post-construction, including confirmation that vegetation communities that naturally regenerate (or were planted) are similar to adjacent vegetation communities. If required, adaptive management will be employed to modify or enhance any reclamation efforts

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277	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• The loss and alteration of beaver habitat will be minimized to the extent possible and will be undertaken in compliance with the requirements of the Fisheries Act (1985).
278	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Construction traffic will be restricted to designated areas.
279	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Unnecessary idling of vehicles and equipment will be limited on construction sites.
280	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• The Project footprint is designed to minimize vegetation clearing and access road requirements to the extent feasible (e.g., concentrate temporary activities spatially, retain habitat outside of scoped Construction Disturbance Area, restrict construction vehicle traffic to established access roads where feasible).
281	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• During Construction, the ongoing use of inactive areas by predators will be minimized through physical control measures such as rollback, removal of creek crossings, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access.
282	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• During Operation and Maintenance, the ongoing use of inactive areas by predators will be minimized through physical control measures such as rollback, removal of creek crossings, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access.

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283	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Screening culverts and regularly checking water crossings for evidence of beaver activity and removing log jams early can reduce the need to remove beaver dams or lodges in ways that could cause incidental take of beavers.
284	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Environmental training for workers will include information on beaver lodge identification and procedures to follow if a lodge is identified.
285	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• If an active lodge is identified during active construction, including during vegetation removal, work will stop and local Ministry of Natural Resources offices will be contacted immediately. If a beaver lodge or dam requires removal then an Application to Interfere with/Destroy a Black Bear or Furbearing Mammal Den, Beaver Dam, Black Bear in Den will be submitted to the Ministry of Natural Resources.
286	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Maintenance traffic will be restricted to designated areas.
287	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• De-icing salts will not be used on the unpaved Community Access Road during Construction or Operation and Maintenance.
288	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Operation and Maintenance traffic will be restricted to approved right-of-way, workspace and access roads or trails.

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289	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Temporary access roads and other temporary construction infrastructure will be reclaimed as quickly as possible following Construction. As part of the reclamation of temporary access roads, access to these roads will be physically blocked to decrease public use.
290	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Implement an Environmental Protection Plan that includes the following measures to control, and / or restrict public use of access roads during Operation and Maintenance: speed limits, gates / manned gates, signage, reduced road standard, felling of timber across temporary access roads after reclaimed, removal of temporary watercourse crossings, reduce traffic by locating camps near construction sites. Posting of restricted access and speed signage will follow the Construction Specification for Temporary Traffic Control Devices (OPSS, 2016).
291	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• An Environmental Protection Plan and a Cleanup and Reclamation Plan will be developed and implemented. Where necessary, seedling planting will occur to improve reclamation success on areas of temporary disturbance (e.g., temporary access roads, laydown areas, camps, and workspaces) where habitat enhancement is identified. Reclamation plans will be confirmed through engagement with Indigenous communities, the Ministry of Natural Resources and local foresters. Effectiveness of reclamation efforts will be monitored and managed post-construction, including confirmation that vegetation communities that naturally regenerate (or were planted) are similar to adjacent vegetation communities. If required, adaptive management will be employed to modify or enhance any reclamation efforts.
292	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Unnecessary idling of vehicles and equipment will be limited on construction sites.
293	• Wildlife	• Wildlife	• Detail Design / Pre-Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• The development of an Environmental Protection Plan which includes a worker awareness program.	• Not applicable.

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294	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Construction personnel will traverse the path of construction equipment, to induce frogs, toads, and snakes to be scared away from the path of oncoming machinery.
295	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Any reptiles or amphibians found within work areas will be relocated to suitable habitat nearby. Safe handling practices will be used to move turtles, snakes and other herpetofauna to areas away from the construction (e.g., Ontario Species at Risk Handling Manual: For Endangered Species Act Authorization Holders)
296	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Monitoring for reptiles and amphibians will be conducted during Construction and reptiles and amphibians will be relocated as needed to similar habitat outside of the work area
297	• Wildlife	• Wildlife	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Signage will be posted in areas where reptiles and amphibians are regularly observed.
298	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Sub-surface eco-passages and exclusion fencing will be established at culverts along the north-south segment of the Community Access Road.
299	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Monitoring for reptiles and amphibians will be conducted during Maintenance and reptiles and amphibians will be relocated as needed to similar habitat outside of the work area

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300	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Operation and Maintenance traffic will be restricted to approved right-of-way, workspace and access roads or trails.
301	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• Sub-surface eco-passages and exclusion fencing will be established at culverts along the north-south segment of the Community Access Road
302	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• An Environmental Protection Plan and a Cleanup and Reclamation Plan will be developed and implemented. Where necessary, seedling planting will occur to improve reclamation success on areas of temporary disturbance (e.g., temporary access roads, laydown areas, camps, and workspaces) where habitat enhancement is identified. Reclamation plans will be confirmed through engagement with Indigenous communities, the Ministry of Natural Resources and local foresters. Effectiveness of reclamation efforts will be monitored and managed post-construction, including confirmation that vegetation communities that naturally regenerate (or were planted) are similar to adjacent vegetation communities. If required, adaptive management will be employed to modify or enhance any reclamation efforts.
306	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Water taking will be in compliance with Ontario Regulation 387/04 as amended by Ontario Regulation 64/16 (Government of Ontario, 1990c) (pertaining to permits, data and reporting, and water transfers), where applicable, and best industry practices.
307	• Surface Water	• Surface Water	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Eligible activities will be registered on the Environmental Activity and Sector Registry. If an activity does not meet these criteria, a Permit to Take Water will be obtained.	• Not applicable.
308	• Surface Water	• Surface Water	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Site specific water flow and/or levels triggers will be developed for sensitive water sources that may be affected by water takings, if needed.	• Site specific water flow and/or levels triggers will be developed for sensitive water sources that may be affected by water takings, if needed.

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309	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Potable water for work sites, temporary construction camps, and temporary laydown areas will be obtained from surface water sources (with appropriate treatment as needed), bottled sources, and groundwater wells (only if necessary)
310	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• All water taking will be in compliance with the applicable legislation, regulations, and best industry practices.
311	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Construction water will be discharged in compliance with Ontario Regulation 387/04 as amended by Ontario Regulation 64/16 (Government of Ontario, 1990c) or Ontario Regulation 63/16 (Government of Ontario, 1990d), where applicable, and good industry practice.
312	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Treatment and disposal of water from concrete batch plants at pits and quarries will be in compliance with Environmental Compliance Approvals issued by the Ministry of the Environment, Conservation and Parks under the Environmental Protection Act (Government of Ontario, 1990d), where applicable.
313	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Wastewater associated with discharges from Project will be characterised and, in some cases, assimilative capacity study may be conducted, where necessary.
314	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• 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 waterbody. 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 regraded prior to construction crews departing the site.
315	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Domestic wastewater will be discharged to on site leaching beds at the temporary construction camps. All required permits and authorizations will be acquired for construction and operation of the leaching beds. Leaching beds will be designed and constructed according to Ontario Building Code 2012 (Ontario Regulation 332/12: Building Code) under Building Code Act (Government of Ontario, 1992).
316	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• If required and when feasible, domestic wastewater will be removed by approved disposal trucks and disposed of at wastewater treatment plants with authorization and capacity to accept this wastewater.

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317	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Construction water / wastewater (not requiring approvals) will be directed at, a minimum, to low-lying vegetated areas for infiltration, and measures such as filter fabric or straw bales will be utilized to minimize sediment transport during dewatering.
318	• Surface Water	• Surface Water	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Marten Falls First Nation with the Owner/Operator will review discharge sites / locations to avoid discharging to sensitive areas, including areas identified through the Indigenous Knowledge Program.	• Marten Falls First Nation with the Owner/Operator will review discharge sites / locations to avoid discharging to sensitive areas, including areas identified through the Indigenous Knowledge Program.
319	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• The construction (and removal as needed) of temporary and permanent waterbody crossings, and removal of temporary waterbody crossing structures following the completion of the relevant work, will be in compliance with Ministry of the Environment, Conservation and Parks specified conditions and Ministry of Natural Resources regulatory permits and approvals, as applicable.
320	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Short-term water diversions (active or passive) will be carried out in accordance with Ontario Regulation 387/04 as amended by Ontario Regulation 301/21 (Government of Ontario, 1990c).
321	• Surface Water	• Surface Water	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Waterbody crossings will be designed and constructed in compliance with Ontario Regulation 454/96 of the Lakes and Rivers Improvement Act (Government of Ontario, 1990f), as applicable.	• Waterbody crossings will be designed and constructed in compliance with Ontario Regulation 454/96 of the Lakes and Rivers Improvement Act (Government of Ontario, 1990f), as applicable.
322	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Waterbody crossings will be constructed in compliance with Ministry of the Environment, Conservation and Parks-specified conditions and Ministry of Natural Resources approvals, if required.
323	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Waterbody crossings will be designed and constructed in accordance with the Ministry of Natural Resources' Environmental Guidelines for Access Roads and Water Crossings (Ministry of Natural Resources, 1990) as well as Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales (Ministry of Natural Resources, 2010) and Technical Guide River & Stream Systems: Flooding Hazard Limit (Ministry of Natural Resources, 2002), as applicable.

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324	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Environmental monitoring (including water quality sampling / testing noted in Section 9.2 will be conducted during Construction Phase to verify the performance and effectiveness of the planned mitigation measures. Monitoring will occur during installation works, including all in-water activities, and continue during the Construction Phase, including the removal of temporary crossing structures as part of construction decommissioning activities. The monitoring program will be under the direction of the Environmental Monitor and Indigenous Environmental Monitor.
325	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Temporary waterbody crossings will be remediated at the end of Construction Phase. The remediation will involve removal of temporary waterbody crossing structures (if constructed), restoration, and stabilization of waterbody banks and other disturbed areas when the crossing is no longer required.
326	• Surface Water	• Surface Water	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• An Adaptive Management Plan will be developed in the event of an unexpected change to water quantity or quality (i.e., increase in turbidity in accordance with Canadian Council of Ministers of the Environment standards).	• An Adaptive Management Plan will be developed in the event of an unexpected change to water quantity or quality (i.e., increase in turbidity in accordance with Canadian Council of Ministers of the Environment standards).
327	• Surface Water	• Surface Water	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Waterbody crossings will be designed and constructed in accordance with permits and approvals through Fisheries and Oceans Canada, and Ministry of Natural Resources, as applicable.	• Waterbody crossings will be designed and constructed in accordance with permits and approvals through Fisheries and Oceans Canada, and Ministry of Natural Resources, as applicable.
328	• Surface Water	• Surface Water	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Waterbody crossing design and construction will maintain the characteristic channel width, depths, slopes, and substrate in the event that a channel realignment is required, noting that: ○ Channel realignments and / or infillings will be avoided through Project planning and design to the extent practicable. ○ Channel realignments and / or infilling will only be undertaken in locations where specific conditions are met and / or where required for safety and security purposes; and if required. ○ A realignment would avoid the use of a Fisheries and Oceans Canada code of practice (required approval by Fisheries and Oceans Canada), with the plan and mitigations requiring reviewed by Ministry of Natural Resources through permitting the water crossing.	• Waterbody crossing design and construction will maintain the characteristic channel width, depths, slopes, and substrate in the event that a channel realignment is required, noting that: ○ Channel realignments and / or infillings will be avoided through Project planning and design to the extent practicable. ○ Channel realignments and / or infilling will only be undertaken in locations where specific conditions are met and / or where required for safety and security purposes; and if required. ○ A realignment would avoid the use of a Fisheries and Oceans Canada code of practice (required approval by Fisheries and Oceans Canada), with the plan and mitigations requiring reviewed by Ministry of Natural Resources through permitting the water crossing.
329	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• All newly installed or upgraded waterbody crossing structures will be in compliance with Ontario Regulation 239/13 (Government of Ontario, 1990h) and Ontario Regulation 454/96 (Government of Ontario, 1990f), as applicable.

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330	• Surface Water	• Surface Water	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Waterbody crossing structures, including clear span bridges, ice bridges / snow fills, rig mats and culverts, will be primarily based on hydrologic and hydraulic design flow calculations, which consider, but are not limited to, expected rainfall and peak flow within the geographic area as well as the relevant catchment area, channel slope, and channel substrate.	• Waterbody crossing structures, including clear span bridges, ice bridges / snow fills, rig mats and culverts, will be primarily based on hydrologic and hydraulic design flow calculations, which consider, but are not limited to, expected rainfall and peak flow within the geographic area as well as the relevant catchment area, channel slope, and channel substrate.
331	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• At some locations where it is determined that spring-melt or storm runoff needs to pass from one side of the right-of-way to the other to prevent flooding and / or erosion, equalization culverts will be installed.
332	• Surface Water	• Surface Water	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Each waterbody crossing will be visited ahead of construction by qualified environmental personnel and fisheries biologists and / or technicians (i.e., Aquatics Specialist) to verify that the crossing location is conducive to the planned crossing structure installation, such that any changes in site conditions can be addressed through necessary design adjustments. During pre-construction site visits, surface water surveys at any waterbody crossing location that has not already been assessed as part of the field investigations will be conducted. Refer to Section 9.1 for details about pre-construction surveys.	• Each waterbody crossing will be visited ahead of construction by qualified environmental personnel and fisheries biologists and / or technicians (i.e., Aquatics Specialist) to verify that the crossing location is conducive to the planned crossing structure installation, such that any changes in site conditions can be addressed through necessary design adjustments. During pre-construction site visits, surface water surveys at any waterbody crossing location that has not already been assessed as part of the field investigations will be conducted. Refer to Section 9.1 for details about pre-construction surveys.
333	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• If site-specific changes to waterbody crossing structure type are required, engagement with appropriate regulatory authorities (i.e., Fisheries and Oceans Canada, Ministry of Natural Resources) will occur prior to any instream construction activities, where appropriate (i.e., placement of additional fill, regrading and / or stabilization of bed or banks).
334	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• To reduce the potential effects on cross-section hydraulics mitigation measures will include: ○ Minimizing the number of waterbody crossings required, to the extent possible and use of existing roads or trails; ○ Carrying out construction activities without any permanent in-water works except where culverts will be used; ○ Designing the infrastructure at waterbody crossings to pass peak flows (including extreme storm events cause by climate change, as appropriate) and maintain sufficient flow conveyance in such a way that no discernible effects on stream hydraulics occur.
335	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Prior to commencing construction work, the Owner/Operator will implement erosion and sediment control measures.
336	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Upon completion of construction work, watercourse banks will be returned to their original profile, and disturbed areas will be stabilized as necessary to prevent soil erosion.

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337	• Surface Water	• Surface Water	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Permanent culverts will be monitored in accordance with the Culvert Inspection Guide (Ministry of Transportation, 2022) to identify and remove blockages (e.g., ice, woody debris), as needed, that could otherwise lead to scouring and effects on channel morphology and fish habitat and potentially interfere with fish passage.
338	• Surface Water	• Surface Water	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• New permanent waterbody crossing structures (bridges), and roadside drainage features will be monitored and inspected for physical function and condition in accordance with the Ontario Structure Inspection Manual (Ministry of Transportation, 2018).
339	• Surface Water	• Surface Water	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Waterbody crossings will be maintained in accordance with permits and approvals through Fisheries and Oceans Canada and Ministry of Natural Resources, as applicable.
340	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Problems identified during monitoring and inspection will be fixed immediately to prevent any further damage to the channel hydraulics, aquatic habitat and the fisheries resources.
341	• Surface Water	• Surface Water	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• In-water works will be minimized, where possible, and timing of work will also be limited to avoid period of fish spawning, incubation and migration.
342	• Surface Water	• Surface Water	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Appropriate erosion and sediment control measures will be implemented in accordance with the Ontario Provincial Standard Specifications for erosion and sediment control measures (OPSS.PROV 804, OPSS.MUNI 182 and OPSS.MUNI 805) prior to commencement of repair work.
343	• Surface Water	• Surface Water	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Disturbed areas will be restored and revegetated to mitigate erosion and sediment entry to waterbodies.
344	• Surface Water	• Surface Water	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Waterbody crossings will be repaired and reinforced in a manner that prevents waterbody crossing structure materials from entering waterbodies.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
345	• Surface Water	• Surface Water	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Entry of waste materials to be stabilized or disposed of will be prevented in waterbodies.
346	• Surface Water	• Surface Water	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Waterbody crossings will be reconstructed, when necessary, in compliance with Ministry of Natural Resources approvals.
347	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• The right-of-way, roads, and trails (existing and new) will be used for access, to the extent practicable, to minimize changes in land cover.
348	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Upgrade and construction of new access road will be in accordance with the Ministry of Natural Resources' Environmental Guidelines for Access Roads and Water Crossings (Ministry of Natural Resources, 1990).
349	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Temporary construction camps, temporary laydown areas, and other Project activities will be located a minimum of 30 m away from the ordinary high-water mark of a waterbody.
350	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Progressive revegetation of the right-of-way including natural revegetation using native seed or appropriate tree species will be implemented, as appropriate. Temporary access roads and trails, temporary construction camps, turn-around areas, waterbody crossings, and temporary laydown areas will be progressively restored to preexisting compatible condition through the Construction Phase.
351	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Seeding will follow as close as possible to final cleanup and topsoil material replacement pending seasonal or weather conditions.
352	• Surface Water	• Surface Water	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Only materials cleared for acid rock drainage (i.e., non-potentially acid generating rock) by a geochemical verification process will be used for the road surface to avoid acid rock drainage or associated metal leaching.

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353	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• The Owner/Operator will limit the use of off-road vehicles during Construction Phase, noting that: ○ Off-road vehicle use will follow Fisheries and Oceans Canada's Code of Practice for Fording (Fisheries and Oceans Canada, 2022), Fisheries and Oceans Canada's All Terrain Vehicle Guidance (Fisheries and Oceans Canada, 2010) and Ontario Regulation 316/03 under Highway Traffic Act (Government of Ontario, 1990g). ○ Inspections and maintenance activities will include cleaning of off-road vehicles before and after each use to prevent the spread of invasive species and to identify any fuel leaks or equipment damage. ○ Avoidance of sensitive features and waterbody crossings to the extent practicable.
354	• Surface Water	• Surface Water	• Construction • Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Erosion and Sediment Control Plan will be developed and implemented in accordance with Ontario Provincial Standard Specifications for erosion and sediment control measures (OPSS.PROV.804, OPSS.MUNI 182 and OPSS.MUNI.805). This includes provision of multistage drainage and sediment controls to collect and treat stormwater runoff from Project components, as appropriate. These controls may include diversion swales / dykes, collection ditches, silt fences, rock check dams, sediment traps / basins, level spreaders and riparian buffer strips. An Erosion and Sediment Control Plan will be provided in permit/approval applications for review by regulatory agencies, as applicable, in advance of construction activities.	• Erosion and Sediment Control Plan will be developed and implemented in accordance with Ontario Provincial Standard Specifications for erosion and sediment control measures (OPSS.PROV.804, OPSS.MUNI 182 and OPSS.MUNI.805). This includes provision of multistage drainage and sediment controls to collect and treat stormwater runoff from Project components, as appropriate. These controls may include diversion swales / dykes, collection ditches, silt fences, rock check dams, sediment traps / basins, level spreaders and riparian buffer strips. An Erosion and Sediment Control Plan will be provided in permit/approval applications for review by regulatory agencies, as applicable, in advance of construction activities.
355	• Surface Water	• Surface Water	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Disturbance to existing land cover during maintenance works will be kept to a minimum level.
356	• Surface Water	• Surface Water	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Disturbed areas will be restored and revegetated, including natural revegetation, to mitigate changes to runoff rates and erosion / sedimentation processes.
357	• Surface Water	• Surface Water	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Existing access roads and trails for access, if available, will be used, to the extent practicable, to minimize new disturbance.
358	• Surface Water	• Surface Water	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• New access road will be upgraded in accordance with Ministry of Natural Resources' Environmental Guidelines for Access Roads and Water Crossing (Ministry of Natural Resources, 1990), which provides comprehensive guidance with respect to design and construction practices to mitigate environmental effects.

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359	• Surface Water	• Surface Water	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Off-road vehicles will be inspected and cleaned before and after each use to prevent the spread of invasive species and to identify any fuel leaks or equipment damage.
360	• Surface Water	• Surface Water	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Appropriate erosion and sediment control measures will be implemented in accordance with the Ontario Provincial Standard Specifications for erosion and sediment control measures (OPSS.PROV 804, OPSS.MUNI 182 and OPSS.MUNI 805) prior to commencement of maintenance work.
361	• Surface Water	• Surface Water	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Potential mitigation measures outlined in the Ontario Ministry of Transportation Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions for Provincial Transportation Projects (Ontario Ministry of Transportation, 2020) may be implemented, if feasible.
362	• Surface Water	• Surface Water	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• The Owner/Operator will prepare and implement Waste Management Plans that describe the appropriate management of solid, liquid, and hazardous waste.	• The Owner/Operator will prepare and implement Waste Management Plans that describe the appropriate management of solid, liquid, and hazardous waste.
363	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Portable, secure, solid waste receptacles will be provided on work sites and temporary laydown areas and the solid waste collected will be hauled periodically to waste handling and storage facilities located at the temporary construction camps;
364	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Solid waste handling and storage facilities at temporary construction camps will be sited outside a minimum 30 m buffer around waterbodies.
365	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Solid waste handling and storage facilities at temporary construction camps and aggregate pits and quarries will be provided with drainage controls.
366	• Surface Water	• Surface Water	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• The Owner/Operator will prepare and implement a Spill Prevention and Emergency Response Plan that describes specific measures that would be implemented if a spill occurred.	• The Owner/Operator will prepare and implement a Spill Prevention and Emergency Response Plan that describes specific measures that would be implemented if a spill occurred.

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367	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Solid waste will be managed and disposed in compliance with Ontario Regulation 347 as amended by Ontario Regulation 105/24 under the Environmental Protection Act (Government of Ontario, 1990d).
368	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Hazardous waste will be periodically transported by a registered hauler to an approved disposal site.
369	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• A riparian buffer of 30 m around waterbodies will be maintained for the right-of-way, unless required for access to install waterbody crossing structures, in which case a 10 m wide right-of-way for equipment access will be cleared within right-of-way.
370	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Temporary access roads will be cleared and will be 10 m wide.
371	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Vegetation clearing will consist of cutting tree trunks parallel to and within 15 cm of the ground or lower as well as the removal of all shrubs, debris, and other such materials.
372	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Vegetation will be largely removed by mechanical means, except within 10 m of a watercourse or wetland. In these areas, vegetation will be removed manually, using chain saws and other hand-held equipment, while leaving the undergrowth and duff layer undisturbed to prevent erosion.
373	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Vegetation clearing or disturbed areas within the 30 m buffer will be provided with appropriate erosion and sediment controls in accordance with the Ontario Provincial Standard Specifications for erosion and sediment control measures (OPSS.PROV 804, OPSS.MUNI 182 and OPSS.MUNI 805).
374	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Removed vegetation will be immediately transported outside a waterbody buffer zone (30 m) and above its high-water mark.

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375	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Herbicides use is not planned. Vegetation will be largely removed by mechanical means, except within 10 m of a watercourse or wetland. In these areas, vegetation will be removed manually, using chain saws and other hand-held equipment, while leaving the undergrowth undisturbed to prevent erosion.
376	• Surface Water	• Surface Water	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Vegetation will be removed using mechanical means, except within 10 m of a waterbody where chain saws and other hand-held equipment will be used.
377	• Surface Water	• Surface Water	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Soil disturbance, including grubbing, will be avoided within 30 m of a waterbody.
378	• Surface Water	• Surface Water	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• A riparian buffer of 30 m around waterbodies for the right-of-way will be maintained, unless required for access to repair / replace waterbody crossing structures, in which case a 10 m wide right-of-way for equipment access will be cleared within right-of-way. Temporary access roads will be cleared and will be 10 m wide.
379	• Surface Water	• Surface Water	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Appropriate erosion and sediment controls will be implemented in accordance with the Ontario Provincial Standard Specifications for erosion and sediment control measures (OPSS.PROV 804, OPSS.MUNI 182 and OPSS.MUNI 805) when clearing or disturbing areas within the 30 m buffer.
380	• Surface Water	• Surface Water	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Removed vegetation will be relocated immediately outside a waterbody buffer zone (30 m) and above its high-water mark.
381	• Surface Water	• Surface Water	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Herbicides use is not planned. Vegetation will be largely removed by mechanical means, except within 10 m of a watercourse or wetland. In these areas, vegetation will be removed manually, using chain saws and other hand-held equipment, while leaving the undergrowth undisturbed to prevent erosion.
382	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• During Construction, existing access to roads or trails, if available, will be used as much as possible to limit disturbance resulting from construction of new Community Access Road.

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383	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Temporary laydown areas and temporary construction camps will be constructed on existing disturbed areas and / or at reasonably flat areas with stable soil, where possible.
384	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Water crossings will be constructed in compliance with Ontario Regulation 239/13 under Public Lands Act (Government of Ontario, 1990h) and / or Ontario Regulation 454/96 under the Lakes and Rivers Improvement Act (Government of Ontario, 1990f), as applicable.
385	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Buffer zones of 30 m will be maintained around waterbodies and clearing of riparian vegetation will be limited to the extent practicable and to the requirement of the access road and alignment clearing width only. Clearing at waterbody crossings along the Community Access Road right-of-way will generally be limited to a 10 m wide right-of-way for equipment access to waterbody crossing structures (e.g., temporary bridges).
386	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Removed vegetation will be immediately transported outside a waterbody buffer zone and above its high-water mark to minimize disturbance to the bed and banks.
387	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Marten Falls First Nation with the Owner/Operator will work with both Indigenous communities and forest management units to manage merchantable timber cleared by the Project.
388	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Slash and debris will be chipped and spread over the right-of-way or will be burned in accordance with provincial Forest Fires Prevention Act and in compliance with Ontario Regulation 207/96 (Government of Ontario, 1990e).
389	• Surface Water	• Surface Water	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Complete site-specific surface water surveys to support engineering and permitting at waterbody crossings where work below high-water mark is proposed. Submit designs of waterbody crossings as required for permit applications to Fisheries and Oceans Canada and Ministry of Natural Resources.	• Not applicable.
390	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Marten Falls First Nation with the Owner/Operator will develop and implement Erosion and Sediment Control Plan. The Owner/Operator will install, monitor, and manage appropriate erosion and sedimentation control measures in accordance with Ontario Provincial Standard Specifications for erosion and sediment control measures (OPSS.PROV.804, OPSS.MUNI 182 and OPSS.MUNI.805) to minimize or avoid sediment mobilization to drainages, or waterbodies. Adequate and appropriate erosion and sedimentation control materials shall be on site and available prior to commencement of Construction.

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391	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Disturbed areas will be stabilized (e.g., cover exposed areas with erosion control blankets or tarps to keep the soil in place and prevent erosion) as needed. Such areas will be covered with mulch to prevent erosion.
392	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Sedimentation in the receiving environment will be controlled by directing sediment-laden water to various temporary storage and settlement features (i.e., sumps, settling ponds or catch basins) prior to discharge. Alternately, where appropriate, the sediment-laden water will be directed to drain / filter through low gradient, well-vegetated areas away from watercourses (i.e., using pumps and hoses).
393	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Sediment control measures will be incorporated prior to construction activities or immediately after disturbance on site-specific cases throughout the Project to avoid introduction of sediment to the environment, and, as part of this, 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, and other features.
394	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Additional contingency measures will be implemented as appropriate in the event of excessive rain, wet weather, or flood-like conditions (when the planned activity could cause significant damage to soils, such as 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): ○ Reschedule work or reduce / detour traffic in areas where soils are considered to be excessively wet. ○ Restrict construction traffic, where feasible, to equipment with low ground pressure tires or wide pad tracks. ○ During excessively wet conditions, work only in non-problem 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) and have crews park in a stable area and walk to on-site equipment if feasible. ○ Install access or rig matting in problem areas to protect soils. ○ If necessary, work will be suspended until soils dry out or appropriate site-specific mitigation can be used to prevent soil disturbance.
395	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Progressive reclamation of disturbed areas will be practiced. Natural recovery will be the preferred method over seeding of reclamation on level terrain where erosion is not expected. If seeding is required, erosion prone areas will be seeded with a native cover crop and certified seed mix approved by the applicable regulatory agency, as soon as feasible after Construction.

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396	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• All aggregate pits will be located a minimum of 120 m away from the ordinary high-water mark of a waterbody, where possible. The aggregate pits will follow the guidelines and associated conditions / requirements of the approved permits, including development of a rehabilitation plan, outlined in the Aggregate Permits on Crown Lands for Pits and Quarries above Water (Ministry of Natural Resources and Forestry, 2014) and the Forest Management Planning Manual (Ministry of Natural Resources and Forestry, 2017).
397	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• The transportation, storage, and handling of fuels during construction will be in compliance with Canada's Transportation of Dangerous Goods Act (Government of Canada, 1992) and the Technical Standards and Safety Act (Government of Ontario, 2000).
398	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• The aboveground storage tanks will meet the requirements of the Canadian Council of Ministers of the Environment (2003).
399	• Surface Water	• Surface Water	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• The Owner/Operator will prepare and implement a Spill Prevention and Emergency Response Plan in accordance with Part X of the Environmental Protection Act and Ontario Regulation 675/98 under Environmental Protection Act (Government of Ontario, 1990d).	• The Owner/Operator will prepare and implement a Spill Prevention and Emergency Response Plan in accordance with Part X of the Environmental Protection Act and Ontario Regulation 675/98 under Environmental Protection Act (Government of Ontario, 1990d).
400	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• A Spill Prevention and Emergency Response Plan will be provided in permit/approval applications for review by regulatory agencies, as applicable, in advance of construction activities.
401	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Fuel and hazardous materials will be transported in approved containers in licensed vehicles.
402	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Transportation of fuel on winter roads will only take place in safe ice conditions, noting that at the onset of the Project, fuel will be transported by aircraft to the fuel storage facility.
403	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Vehicles used for transportation will be licensed and maintained according to safety requirements. Vehicles and equipment used for construction will be regularly serviced, maintained and inspected for leaks.

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404	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Fuel and hazardous materials will be stored and handled in designated areas with appropriate secondary containment.
405	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Refuelling, service, and maintenance of vehicles and equipment will generally be carried out in designated areas at temporary construction camps and temporary laydown areas located a minimum of 120 m from waterbodies to the extent possible.
406	• Surface Water	• Surface Water	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Designated refuelling, service, and maintenance areas will be designed and constructed to collect and contain minor leaks and spills, and will also have adequate lighting available to help prevent the potential for spills during hours when daylight is not available.	• Designated refuelling, service, and maintenance areas will be designed and constructed to collect and contain minor leaks and spills, and will also have adequate lighting available to help prevent the potential for spills during hours when daylight is not available.
407	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• If refuelling within 120 m of a waterbody cannot be avoided, enhanced spill containment measures, such as a Spill Prevention and Emergency Response Plan, will be used.
408	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• In the event that refuelling, servicing, and maintenance is required in the field, 120 m buffer will be respected to the extent possible. There may be locations where this is not possible due to the prevalence of wetlands; however, in these locations, enhanced spill containment measures will be used.
409	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Spill response kits will be provided in fuel and hazardous materials storage and handling facilities at temporary construction camps and temporary laydown areas, in on-site work areas, and / or in vehicles and equipment, and personnel will be trained in spill response practices and procedures.
410	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Spills and leaks will be contained and cleaned up as soon as possible following incident, and disposed of at a treatment facility with authorization and capacity to accept this waste.
411	• Surface Water	• Surface Water	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Vehicles or equipment for maintenance activities will be licensed and maintained according to safety requirements.

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412	• Surface Water	• Surface Water	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• - Regular inspections of vehicles and equipment for leaks will be performed.
413	• Surface Water	• Surface Water	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Hazardous materials will be stored in designated areas designed and constructed to collect and contain minor leaks and spills.
414	• Surface Water	• Surface Water	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Spill Prevention and Emergency Response Plan (including clean-up equipment and material, instructions, education and emergency numbers) for maintenance activities will be developed and implemented.	• Spill Prevention and Emergency Response Plan (including clean-up equipment and material, instructions, education and emergency numbers) for maintenance activities will be developed and implemented.
415	• Surface Water	• Surface Water	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Contaminated soil will be removed and hauled to an approved land facility for disposal.
416	• Surface Water	• Surface Water	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Sand will be used on bridge decks and roadways for de-icing instead of salt.
417	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• The transportation and storage of explosives will be in compliance with the Explosives Act (Government of Canada, 1985) and the Transportation of Dangerous Goods Act (Government of Canada, 1992), where applicable.
418	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Ammonium nitrate and fuel oil will not be used. Explosives will be in emulsion form (ammonium nitrate emulsion) to mitigate potential dissolution and poor explosive performance in the presence of water.
419	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Blasting activities will also be in accordance with aggregate permit / licence issued under Aggregate Resources Act (Government of Ontario, 1990i).

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420	• Surface Water	• Surface Water	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• The Owner/Operator will prepare and implement a Blasting and Communication Management Plan that describes specific measures that would be implemented if blasting is required.	• The Owner/Operator will prepare and implement a Blasting and Communication Management Plan that describes specific measures that would be implemented if blasting is required.
421	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• The Environmental Inspector will monitor blasting operations for adherence to the Blasting and Communication Management Plan.
422	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Parks • Transport Canada	• Not applicable.	• Discarded explosives will either be detonated on site as part of the blast with explosives packaging daily or temporarily stored in the explosives magazine and returned to the explosives' distributor.
423	• Birds	• Birds	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks and Ontario Ministry of Natural Resources, will be followed during Construction.
424	• Birds	• Birds	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks and Ontario Ministry of Natural Resources, will be followed during Operation and Maintenance.
425	• Birds	• Birds	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Follow Ontario Provincial Standard Specification 411 and regularly inspect and maintain culverts and bridges
426	• Birds	• Birds	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Restrict access to the effects assessment Construction Disturbance Area to construction personnel and prohibit firearms

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427	• Birds	• Birds	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Potential changes in hunter and angler pressure, and fish and bird harvest during Project Operation and Maintenance will continue to be managed by Environment and Climate Change Canada, Ministry of Natural Resources, and Fisheries and Oceans Canada.
428	• Birds	• Birds	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Follow guidance as outlined in Environment and Climate Change Canada's Avoidance Guidelines for Migratory Birds.
429	• Birds	• Birds	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Vegetation clearing activities will occur between August 15 and April 27 (outside of the migratory bird nesting season for nesting zones C5 and C6), as much as possible.
430	• Birds	• Birds	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Non-intrusive pre-clearing nest surveys to look for migratory bird nests will be completed if any vegetation clearing is required during the migratory bird nesting season (April 28 to August 14). Pre-clearing nest surveys will follow guidance outlined in Attachment D.
431	• Birds	• Birds	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Wildlife sweeps to look for pileated woodpecker nests and raptor stick nests will be completed prior to vegetation clearing at any time of the year.
432	• Birds	• Birds	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• As per the Ministry of Transportation's Environmental Protection for Migratory Birds (EP4), bridges and culverts will be inspected for the presence of nests and / or birds prior to maintenance activities taking place.

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433	• Birds	• Birds	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Restricting access to the Project to construction personnel during Construction.
434	• Birds	• Birds	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Providing wildlife awareness training for road construction workers to reduce vehicle speeds.
435	• Birds	• Birds	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Posting and enforcement of an 80 km/hr speed limit during Project Operation and Maintenance.
436	• Birds	• Birds	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Keeping building and storage container doors closed. • The slopes of material stockpiles will be maintained at 70 degrees or less to deter bank swallow nesting
437	• Birds	• Birds	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Roadkill, debris, and waste management as per Ministry of Transportation's Debris Control Maintenance Quality Standard (MQS-331) and Ministry of Transportation's Rest Area/Picnic Site Maintenance Best Practice (MBP-325).
438	• Birds	• Birds	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• An Environmental Protection Plan will be implemented that includes policies and actions for avoiding and minimizing the risks of blasting and blasting materials to wildlife, including birds.

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439	• Birds	• Birds	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Adhere to federal and provincial regulations and guidelines regarding hazardous substance collection and storage, use and handling, and disposal and treatment, such as the federal Transportation of Dangerous Goods Act, Ontario Dangerous Goods Transportation Act, and the Ontario Environmental Protection Act.
440	• Birds	• Birds	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Providing training for road construction workers to reduce vehicle speeds.
441	• Birds	• Birds	• Detail Design / Pre-Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• A Preliminary Biodiversity Offset Plan has been developed to have no net loss of bird habitat and no net reduction in bird populations.	• Not applicable.
442	• Birds	• Birds	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Restrict construction traffic to designated areas.
443	• Birds	• Birds	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Wildlife awareness training will be provided for road construction workers to reduce vehicle speeds.
444	• Birds	• Birds	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Implement buffer zones for nests and indicated nests.

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445	• Birds	• Birds	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• During Construction, access to the Community Access Road corridor will be restricted to construction personnel.
446	• Birds	• Birds	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Control lighting required for Construction, including direction (e.g., focused on work areas and away from undisturbed areas) and timing (e.g., avoid work at night) to avoid effects on birds, while meeting operational health and safety requirements.
447	• Birds	• Birds	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Avoid high quality habitats and sensitive areas for migratory bird species at risk, where possible.
448	• Birds	• Birds	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Maintenance activities would be undertaken in the fall and winter where feasible to avoid nesting periods.
449	• Birds	• Birds	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Industry best practices will be used for blasting activities, including scheduling when in the vicinity of sensitive wildlife sites.
450	• Birds	• Birds	• Detail Design / Pre-Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Pileated Woodpecker habitat assessments, including an evaluation based on aerial interpretation and ground-truthed ahead of pre-clearing activities. These assessments are meant to keep project activities in compliance with the Migratory Birds Convention Act (Government of Canada, 1994), specifically identified under the Migratory Birds Regulations (Government of Canada, 2022) in reference to Pileated Woodpecker. Pileated Woodpecker assessments will be completed in advance of the Project commencing construction, factoring in requirements for nest monitoring per ECCC guidance (e.g., monitoring potential Pileated Woodpecker nest cavity trees for a period of 3 years).	• Not applicable.

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451	• Birds	• Birds	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Clearing activities will occur outside the breeding season for most bird species, from August 15 to April 27, where possible (90% of species in nesting zones C5 and C6 are expected to be actively nesting between April 28 and August 14; Environment and Climate Change Canada, 2023c);
452	• Birds	• Birds	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• If any clearing is required during the migratory bird nesting season (i.e., April 28 through August 14), non-intrusive pre-clearing nest surveys will occur within 3 to 7 days prior to clearing; the maximum number of days prior to clearing will depend on the time during the nesting season. ○ During the peak migratory bird nesting season (i.e., when >40% of birds are predicted to be nesting; May 19 through July 30) non-intrusive pre-clearing nest surveys will be completed a maximum of three days prior to clearing. ○ During non-peak nesting periods (i.e., April 28 through May 18 and July 31 through August 14), non-intrusive pre-clearing nest surveys will be completed a maximum of seven days prior to clearing. ○ Pre-clearing nest surveys will be completed by avian biologists with support from Indigenous Environmental Monitors, where possible.
453	• Birds	• Birds	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• If any areas are found to have birds exhibiting breeding behaviour during non-intrusive pre-clearing nest surveys, these areas, including an activity disturbance buffer, will be flagged, and protected from disturbance until the fledglings have left the nest or the nest is otherwise deemed unoccupied (i.e., the nest is depredated);
454	• Birds	• Birds	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• In addition to nest surveys during the migratory bird nesting season, wildlife sweeps will be completed outside of the nesting season to look for and document pileated woodpecker nesting cavities and raptor stick nests. Wildlife sweeps will focus on mature and old growth forest dominated by deciduous trees as these habitats are most likely to have large trees that can support raptor stick nests and pileated woodpecker nests. Wildlife sweeps will be led by avian biologists with support from Indigenous Environmental Monitors, where possible.
455	• Birds	• Birds	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• he effectiveness of mitigation measures will be evaluated during construction and operations, and mitigation measures will be modified or enhanced as necessary through adaptive management.

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456	• Birds	• Birds	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Autonomous recording unit and point count surveys at selected reference sites (i.e., locations surveyed in the alternative Project route Local Study Area during breeding bird, nightjar, and marshbird baseline surveys from 2018 to 2022). Autonomous recording unit and point count surveys will be completed every two years for a period of six years; the need for surveys beyond six years will be determined in consultation with Environment and Climate Change Canada;
457	• Birds	• Birds	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Two roadside North American Breeding Bird Survey routes (each 40 km long and containing 50 survey locations) will be initiated along the Project (i.e., one transect along the southern portion of the Project, and one transect along the northern portion of the Project). The placement of each route will be negotiated with Environment and Climate Change Canada. Each route will be surveyed annually with the goal for the routes to be completed by the same observer for a period of five years; the need for surveys beyond five years will be determined in consultation with Environment and Climate Change Canada. Surveys will be completed in accordance with Environment and Climate Change Canada and United States Geological Survey standards.
458	• Birds	• Birds	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• Three roadside Canadian Nightjar Survey routes (each 20 km long and containing 12 survey locations) will be initiated along the Project (i.e., one transect along the southern portion of the Project, one transect along the middle portion of the Project, and one transect along the northern portion of the Project). Nightjar surveys will be focussed on the detection of Common Nighthawk and Eastern Whip-poor-will. The placement of each route will be negotiated with Birds Canada and / or Environment and Climate Change Canada. Each route will be surveyed annually with the goal for the routes to be completed by the same observer for a period of five years; the need for surveys beyond five years will be determined in consultation with Environment and Climate Change Canada. Surveys will be completed in accordance with Birds Canada survey standards.
459	• Birds	• Birds	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• A minimum of ten Marsh Monitoring Program survey stations will be initiated along the Project (i.e., spaced evenly along the Project, where suitable habitat is present). The placement of each station will be negotiated with Birds Canada and / or Environment and Climate Change Canada. Each survey station will be surveyed annually with the goal for the routes to be completed by the same observer for a period of five years; the need for surveys beyond five years will be determined in consultation with Environment and Climate Change Canada. Surveys will be completed in accordance with Birds Canada survey standards.

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460	• Birds	• Birds	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Royal Canadian Mounted Police	• Not applicable.	• A minimum of 20 targeted survey stations for Short-eared Owl will be surveyed each year, over a period of three years along the Project (i.e., spaced evenly along the Project, where suitable habitat is present; total of 60 surveys). Each survey station will be surveyed a minimum of once over the 3-year period of monitoring and the total monitoring effort will equal or be greater than 60 survey stations completed. Survey stations are not anticipated to be repeated to align with greater spatial coverage throughout the Project. The placement of each station will be chosen to align with the species breeding habitat requirements
461	• Wildlife	• Wildlife	• Construction	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• During Construction, the following monitoring programs may be required: ○ An Environmental Monitor and Indigenous Environmental Monitor will be retained to monitor the development footprint during Construction to identify and sensitive wildlife features that have not previously been identified on or near the Construction Disturbance Area. In the event that a sensitive feature is identified (or suspected to be present) it will be afforded protection according to the Environmental Protection Plan; A reporting protocol and system to report incidental wildlife observations and wildlife vehicle collisions (bats, furbearers and other large mammals, and reptiles and amphibians) during Construction and Operation and Maintenance will be developed. The details of the incidental wildlife and wildlife-vehicle collision reporting system will be described in the Environmental Protection Plan; ○ Waste management and site surveillance monitoring would be completed to avoid attraction of wildlife to the Project and associated risks of adverse human-wildlife interactions. Potential problem areas at the Project would be identified as part of monitoring, which could lead to the implementation of targeted mitigation measures in these areas to limit human-wildlife conflicts. The details of the waste management and site surveillance monitoring will be described in the Waste Management Plan and Environmental Protection Plan; ○ Ground-based or aerial pre-clearing surveys (“wildlife sweeps”) will be completed within a biologically relevant distance of the Construction Disturbance Area under the direction of the Environmental Monitor and Indigenous Environmental Monitor, prior to any clearing or grubbing. The wildlife sweeps will entail surveying for sensitive wildlife features, including mammal dens, beaver lodges, amphibian and reptile habitats, and bat maternity roost habitat, and documenting the presence of large mammals; ○ Details of the ground-based pre-clearing surveys (wildlife sweeps) will be described in the Environmental Protection Plan which will be prepared prior to the project authorization process so as to inform provincial and federal authorizations, as necessary;

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						○ The wildlife sweeps will include surveys to identify potential Species at Risk bat maternity roost habitat within the Construction Disturbance Area to determine the presence of potential bat habitat prior to any tree clearing to be conducted during the bat maternity roost season (May 1 to September 30). Surveys would be conducted to search the Construction Disturbance Area for trees that could provided roosts for little brown myotis and northern myotis (candidate roost trees). Candidate roost trees are defined as trees greater than ten centimetres diameter at 1.3 metres above the ground, with exfoliating bark, cracks, crevices, or cavities; ○ If potential maternity roosting habitat is identified and planned to be removed during the roosting period, bat exit surveys may be conducted depending on the outcome of consultation and Endangered Species Act, 2007 permitting with the Ministry of the Environment, Conservation and Parks Species at Risk Branch; ○ Construction activities causing loud noises including the use of heavy machinery will not be undertaken adjacent to (i.e., within 50 m) candidate or confirmed maternity roosts between half an hour before sunset to half an hour after sunrise during the maternity roost season; ○ The wildlife sweeps will include surveys to identify American marten dens (and the dens of other furbearing mammals) within the Construction Disturbance Area to determine mammal presence prior to any clearing or grubbing/excavation. Any American marten dens observed will be marked as sensitive and be afforded protection prior to any construction. In the event that American marten dens are identified the mitigation described in Section 7.3.1.4.4.2 will be followed. In the event that dens of other furbearing mammals are observed, mitigation measures outlined in the Environmental Protection Plan will be followed; ○ The wildlife sweeps will include surveys to identify beaver lodges within the Construction Disturbance Area to determine potential beaver habitat prior to any clearing or grubbing/excavation or installation of bridges or culverts. Any beaver lodges observed will be marked as sensitive and be afforded protection prior to any construction. In the event that beaver lodges are identified the mitigation described in Section 7.3.1.4.5.2 will be followed; ○ The wildlife sweeps will include surveys for reptiles and amphibian. Any reptiles or amphibians found within work areas will be relocated to suitable habitat nearby. Safe handling practices will be used to move turtles, snakes and other herpetofauna to areas away from the construction (e.g., Ontario Species at Risk Handling Manual: For Endangered Species Act Authorization Holders); ○ Areas with potential to support wolverine denning will be identified through a review of plant community mapping

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						(looking for communities that may contain the microhabitat features [e.g., fallen trees and blowdown, boulders and variable terrain] that wolverine require for denning), and targeted aerial site reconnaissance during the same denning period that construction activities are planned to survey for signs of potential denning areas prior to the initiation of construction activities (e.g., clearing and grubbing); ○ If clearing or grubbing are required during the wolverine denning period (January 15 to May 31) in habitat suitable for wolverine denning, surveys for the presence of wolverine dens will be conducted prior to clearing. Surveys will be conducted from helicopters or drones. The survey extent will include all potentially suitable denning habitat within four kilometres of the disturbance. Den sites require a physical structure such as fallen trees, earthen banks, woody debris, or boulders with snow cover for additional structure and insulation (Scrafford and Ray, 2022). All treed communities (including swamps, forests, treed fens, and treed bogs), all eskers and other prominent terrain features, all rock barrens, all thicket swamps, all watercourse and lakeshore riparian area, and all forestry cut blocks have potential to support maternal denning, Open water and open wetlands such as marshes, open fens, and open fens are not considered suitable for maternal denning; ○ The methods of the surveys will be determined in consultation with the Ministry of the Environment, Conservation and Parks Species at Risk Branch and will be described in the Environmental Protection Plan; ○ Due to the difficulty in confirming the presence of a wolverine den through aerial surveys, a conservative approach will be taken to the identification of potential wolverine dens and denning areas. The positive identification of potential wolverine denning site or denning areas will use a weight of evidence approach and consider several observations including: ▪ Several wolverine tracks observed in the search area; ▪ Wolverine tracks concentrated in certain areas; and ▪ Wolverine tracks observed disappearing into snow covered blowdown or drifts. ○ Observations of wildlife and wildlife signs will be documented and reported to the Owner/Operator's Environmental Monitor and the Environmental Monitor will see that all species at risk observations will be reported to the Natural Heritage Information Centre as per Report rare species (animals and plants) | ontario.ca and to Ministry of the Environment, Conservation, and Parks – Species at Risk Branch at SAROntario@ontario.ca.

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462	• Wildlife	• Wildlife	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Transportation • Ontario Parks • Fisheries and Oceans Canada • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada	• Not applicable.	• During Operation and Maintenance, the following monitoring programs may be required: ○ A public reporting system to track report incidental wildlife observations and wildlife vehicle collisions during and Operation and Maintenance, will be developed; ○ Effectiveness of reclamation efforts will be monitored and managed post-construction, including confirmation that vegetation communities that naturally regenerate (or were planted) are similar to adjacent vegetation communities; and ○ Monitoring for effectiveness of mitigation measures is a requirement of the Tailored Impact Statement Guidelines (Impact Assessment Agency of Canada, 2020) and may include monitoring of eco-passages for wildlife. As details of their implementation are developed in future design stages, monitoring details will be added to the post-Construction monitoring program. ○ Wolverine hair snag/camera trap surveys: monitoring of wolverine population that interacts with the Project Local Study Area to allow for modelling of the wolverine population density in the Operation and Maintenance Phase; and ○ Bat maternity season acoustics: monitoring to confirm continued presence of Species at Risk bats at stations within the Project Local Study Area as well as relative bat activity levels in the Operation and Maintenance Phase. ○ Winter snow tracking – to monitor the abundance and distribution of furbearers during Construction and Operation and Maintenance; ○ Beaver lodge survey – to monitor the abundance and distribution of beavers during Construction and Operation and Maintenance; ○ Remote camera program- to monitor the occurrence and distribution of wildlife during Construction and during Operation and Maintenance. ○ Autonomous recording unit surveys for anurans – to monitor species presence and distribution during Construction and Operation and Maintenance.
463	• Fish and Fish Habitat	• Fish and Fish Habitat	• Detail Design / Pre-Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Fish and fish habitat and surface water surveys using methods similar to those outlined in Section 4.3 will be conducted before construction at any waterbody that has not been assessed and work is proposed below the high-water mark to meet permitting requirements (i.e., for the Fisheries and Oceans Canada Request for Review under the Fisheries Act and for permit applications to the Ministry of Natural Resources under the Lakes and Rivers Improvement Act); and • If new waterbodies are identified prior to construction, an Aquatics Specialist will be contracted to assess the waterbody. Depending on the nature of the waterbody, recommendations for construction methods, appropriate mitigation and enhancement measures, and permitting requirements will be made by the Aquatics Specialist and, if necessary, local First Nation communities and appropriate regulatory agencies including Fisheries and Oceans Canada and the Ministry of Natural Resources, will be engaged. This will allow for the appropriate mitigation and enhancement measures to be implemented during construction at each waterbody crossing at a site-specific level, which will reduce or avoid potential effects on habitat quantity and quality.	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
464	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Environmental Monitors and Indigenous Environmental Monitors will be on site during construction to confirm that all waterbodies crossed by the Community Access Road right-of-way and access roads have been identified and documented in the waterbody crossing list. The Environmental Monitors will monitor the installation, use, and removal of waterbody crossing structures. The Environmental Monitors will confirm that the appropriate waterbody crossing structure is being used and that the required Fisheries and Oceans Canada and the Ministry of Natural Resources approvals and permits are in place; • If new waterbodies are identified during construction, the waterbody will be clearly flagged and activity will be suspended within 30 m of the location until an Aquatic Specialist has assessed the waterbody and determined a suitable course of action, which may include contacting Fisheries and Oceans Canada and the Ministry of Natural Resources; • Appropriate erosion and sedimentation control measures will be installed, monitored, and managed to minimize or avoid sediment mobilization from the disturbed area to drainages or waterbodies. Adequate and appropriate erosion and sedimentation control materials will be on site and available prior to commencement of construction; • A Licence to Collect Fish for Scientific Purposes from the Ministry of Natural Resources will be obtained and Aquatics Specialists will rescue and relocate fish within the isolated workspace prior to construction in the isolated workspace; and • Turbidity and total suspended solids will be monitored according to Fisheries and Oceans Canada, and the Ministry of Natural Resources permit requirements and will follow the Canadian Council of Ministers of the Environment's Canadian Water Quality Guidelines for the Protection of Aquatic Life (Canadian Council of Ministers of the Environment, 1999).
465	• Fish and Fish Habitat	• Fish and Fish Habitat	• Operations and Maintenance	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Culverts and bridges will be regularly inspected and maintained to prevent blockages from forming and causing ponding or backwater effects. Where culverts and bridges are installed at fish-bearing waterbodies, Fisheries and Oceans Canada's Codes of Practice will be followed for debris removal activities (i.e., gradual removal such that flooding downstream, extreme flows downstream, release of suspended sediment, and fish stranding can be avoided) (Fisheries and Oceans Canada, 2025b). Inspection frequency will be adjusted where appropriate to take into account changing climate conditions over time; and • A program will be conducted to verify that erosion and sediment control measures have been successful (e.g., bank restoration and revegetation), and that the stability of each waterbody crossing is maintained (i.e., the channel has not washed out). The post-construction monitoring will occur within one full growing season after the completion of construction, but timing may be extended if needed. The integrity of the permanent crossing structures will be inspected regularly (i.e., annually in spring). Any changes to the morphology of the waterbody channel affecting fish habitat quality or quantity will be identified and addressed, as needed.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
466	• Atmospheric Environment	• Atmospheric Environment	• Construction	• Ministry of the Environment, Conservation and Parks • Health Canada • Environment and Climate Change Canada • Ministry of Transportation • Ministry of Natural Resources	• Not applicable.	• A monitoring program, where feasible, may involve either or both air monitoring as well construction activity monitoring. Construction activity may include verification that construction best management practices are being applied or identify where additional efforts / mitigation techniques may be necessary to help reduce air quality impacts. Construction monitoring may be beneficial in locations where sensitive receptors are in close proximity to the Construction Disturbance Area. Details specific to the scope of the monitoring program would need to be evaluated further following final detail design phases of Community Access Road.
467	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Limit vegetation clearing to within the 100 m right-of-way and to less than this width to the extent possible. Specifically, o Minimize clearing widths in more sensitive ecosystems (e.g., riparian ecosystems) and more difficult to restore vegetation community groups (e.g., fen and bog) to the extent possible. ○ Adjust the alignment or clear off centre within the right-of-way where warranted, to minimize effects on more sensitive or difficult to restore vegetation communities. These details will be refined during detail design, prior to construction. ○ Limit clearing of riparian vegetation (i.e., within 30 m of waterbodies) to the extent possible and to the requirement of the access road and alignment clearing width only. ○ Locate temporary access roads, staging areas, camps, and debris and / or timber stockpiles in less sensitive ecosystems (e.g., upland ecosystems), where possible. Avoid peatland communities for temporary features wherever feasible.
468	• Vegetation	• Vegetation	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Upon completion of construction, sand and gravel pits, including temporary access roads leading to the pits will be rehabilitated (progressive and final rehabilitation) and surrendered in accordance with the Aggregate Resource Act, which will include backfilling, levelling, recompacting, and redistributing organic materials to encourage natural revegetation. Temporary access roads leading to temporary quarry areas will also be decommissioned. Temporary quarries not required for maintenance activities will be vegetated in accordance with the Rehabilitation Plan. Quarries maintained for operations will be blocked to discourage public use but facilitate access for ongoing road maintenance.
469	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Perform clearing and construction activities in winter months where feasible.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
470	• Vegetation	• Vegetation	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Develop and implement a Project-specific Environmental Protection Plan.	• Not applicable.
471	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Have Environmental Monitors and Indigenous Environmental Monitors on-site during construction to confirm that all mitigation measures are being implemented appropriately. Details regarding Environmental Monitors and their role during the Project will be determined through the development of the Environmental Protection Plan.	• Have Environmental Monitors and Indigenous Environmental Monitors on-site during construction to confirm that all mitigation measures are being implemented appropriately. Details regarding Environmental Monitors and their role during the Project will be determined through the development of the Environmental Protection Plan.
472	• Vegetation	• Vegetation	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Reassess the status of Black Ash protection during future study phases. If Schedule 1 of Ontario Regulation 6/24 has been updated to include the area of the Project, a search for Black Ash trees shall be completed at the Ogoki River crossing. Other suitable habitat in the south portion of the effects assessment Construction Disturbance Area may also need to be searched. The scope of this additional assessment will be determined in consultation with regulatory agencies. If Black Ash trees are anticipated to be affected by the Project, regulatory agencies (Ministry of the Environment, Conservation and Parks, Environment Canada and Climate Change) shall be consulted on next steps.	• Not applicable.
473	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Prepare and implement a Vegetation Management Plan at detail design that contains measures to protect rare plants, including protocols specific to Black Ash (e.g., commitments to Emerald Ash Borer prevention measures and long-term surveillance). In the event a rare plant species is encountered unexpectedly, or cannot be avoided, the rare plant protection measures outlined in the Vegetation Management Plan will be implemented.	• Prepare and implement a Vegetation Management Plan at detail design that contains measures to protect rare plants, including protocols specific to Black Ash (e.g., commitments to Emerald Ash Borer prevention measures and long-term surveillance). In the event a rare plant species is encountered unexpectedly, or cannot be avoided, the rare plant protection measures outlined in the Vegetation Management Plan will be implemented.
474	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Consult with Ontario Parks at detail design to determine permitting, mitigation and /or compensation / offsetting expectations for direct impacts to the Albany River Provincial Park.	• Consult with Ontario Parks at detail design to determine permitting, mitigation and /or compensation / offsetting expectations for direct impacts to the Albany River Provincial Park.
475	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Consult with Ontario Parks at detail design to determine permitting, mitigation and / or compensation / offsetting expectations for impacts to Critical Landform / Vegetation Associations.	• Consult with Ontario Parks at detail design to determine permitting, mitigation and / or compensation / offsetting expectations for impacts to Critical Landform / Vegetation Associations.

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476	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Locate temporary access roads, staging areas, camps, and debris and / or timber stockpiles away from known Traditional Use Plant harvesting areas, where possible.	• Locate temporary access roads, staging areas, camps, and debris and / or timber stockpiles away from known Traditional Use Plant harvesting areas, where possible.
477	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Prepare and Implement a Vegetation Restoration Plan. This plan will be developed through engagement and consultation with Indigenous communities and integration of local Indigenous Knowledge and stewardship protocols.	• Prepare and Implement a Vegetation Restoration Plan. This plan will be developed through engagement and consultation with Indigenous communities and integration of local Indigenous Knowledge and stewardship protocols.
478	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Include the seeding and / or planting of Traditional Use Plants in the Vegetation Restoration Plan.	• Include the seeding and / or planting of Traditional Use Plants in the Vegetation Restoration Plan.
479	• Vegetation	• Vegetation	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Prepare and implement a Vegetation Management Plan to keep vegetation from interfering with the safe and reliable operation and maintenance of the road.
480	• Vegetation	• Vegetation	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Avoid re-entry and disturbance of restored temporary access areas post-construction.
481	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Design and implement a pre-, during- and post-construction monitoring program that assesses surface movement and helps to ensure that pre-construction conditions are maintained to the extent feasible (Section 9).	• Design and implement a pre-, during- and post-construction monitoring program that assesses surface movement and helps to ensure that pre-construction conditions are maintained to the extent feasible (Section 9).
482	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Implement adaptive management measures if drainage patterns are determined to be significantly altered. Adaptive management measures will be determined through the development of the Environmental Protection Plan.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
483	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Construct the Community Access Road through peatland communities using a “floating road” construction methodology to allow for groundwater movement below and through the road embankment. This approach will involve: ○ Completion of a detailed ground survey, characterizing the peat and local hydrology at a later stage of the Project / detail design. ○ Site-specific identification of appropriate values for peat strength. ○ Use of a geogrid base to act as a separator and strengthener between the road subgrade fill materials and the peat. ○ Use of additional geogrid and geotextile materials in layers combined with road aggregate material above the embankment fill to form a mechanically stabilized layer. This layer will provide the required strength and stiffness for the road to perform during all seasons, including spring thaw. ○ Design the Floating Road Plan, profile and cross-section for each road section based on context-sensitive design standards, geometry and loading. ○ Provide transitions between floating road sections, excavated and fill sections. ○ Schedule construction to allow for primary settlement of the peat without risk of shear failure. ○ Monitor the work through construction, measuring and recording lateral movement and settlements. Be prepared to adjust the design based on observation and monitoring.
484	• Vegetation	• Vegetation	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• The mitigation measures established and refined using adaptive management during Project Construction should be maintained during the Operation and Maintenance.
485	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Design and implement a pre-, during and post-construction monitoring program that assesses surface and groundwater movement that allows for the maintenance of pre-construction conditions to the extent feasible.
486	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Implement adaptive management measures if groundwater flow patterns are determined to be significantly altered. Adaptive management measures will be determined through the development of the Environmental Protection Plan.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
487	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction •	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• An Environmental Protection Plan will be developed during detail design, and will be implemented during construction to prevent, detect, control (i.e., remove), and monitor areas with invasive species. The plan will also include the following measures: ○ Thoroughly inspect and clean construction equipment and vehicles prior to bringing them to the work area and when moving between work areas within the Project. Cleaning shall be completed in accordance with the most up to date version of the Clean Equipment Protocol for Industry (Halloran et al., 2013). Documentation of the results of each inspection will be a requirement of the Environmental Protection Plan. Additional recommendations for the cleaning of equipment (e.g., the use of specific cleaning stations and their location) will be determined through the development of the Environmental Protection Plan. ○ Use reduced disturbance techniques to prevent topsoil removal and preserve adequate substrate to promote natural revegetation. ○ Contour disturbed areas to minimize soil and water erosion and encourage growth of native vegetation. ○ Limit off-road vehicle use by contractors during Construction. Inspections and maintenance activities will include cleaning of off-road vehicles before and after each use to prevent the spread of invasive species. Recommendations related to the use of off-road vehicles will be determined at detail design and / or through the development of the Environmental Protection Plan. ○ Use seed mixes with appropriate native species for all seeding and restoration works. Seed mixes must be tested / certified to be free of invasive species. Native seed should be sourced from local populations whenever possible. ○ Follow Ministry of Transportation Ontario Provincial Standard Specification 803 to avoid spreading invasive plant species.	• An Environmental Protection Plan will be developed during detail design, and will be implemented during construction to prevent, detect, control (i.e., remove), and monitor areas with invasive species. The plan will also include the following measures: ○ Thoroughly inspect and clean construction equipment and vehicles prior to bringing them to the work area and when moving between work areas within the Project. Cleaning shall be completed in accordance with the most up to date version of the Clean Equipment Protocol for Industry (Halloran et al., 2013). Documentation of the results of each inspection will be a requirement of the Environmental Protection Plan. Additional recommendations for the cleaning of equipment (e.g., the use of specific cleaning stations and their location) will be determined through the development of the Environmental Protection Plan. ○ Use reduced disturbance techniques to prevent topsoil removal and preserve adequate substrate to promote natural revegetation. ○ Contour disturbed areas to minimize soil and water erosion and encourage growth of native vegetation. ○ Limit off-road vehicle use by contractors during Construction. Inspections and maintenance activities will include cleaning of off-road vehicles before and after each use to prevent the spread of invasive species. Recommendations related to the use of off-road vehicles will be determined at detail design and / or through the development of the Environmental Protection Plan. ○ Use seed mixes with appropriate native species for all seeding and restoration works. Seed mixes must be tested / certified to be free of invasive species. Native seed should be sourced from local populations whenever possible. ○ Follow Ministry of Transportation Ontario Provincial Standard Specification 803 to avoid spreading invasive plant species.
488	• Vegetation	• Vegetation	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Limit off-road vehicle use by contractors during Operation and Maintenance. Inspections and maintenance activities will include cleaning of off-road vehicles before and after each use to prevent the spread of invasive species. Recommendations related to the use of off-road vehicles will be determined at detail design and / or through the development of the Environmental Protection Plan.
489	• Vegetation	• Vegetation	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Require that the road operator follows Ministry of Transportation Ontario Provincial Standard Specification 803 to avoid spreading invasive plant species. ○ Remove and manage invasive species using manual and mechanical means. Herbicides will not be used

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490	• Vegetation	• Vegetation	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Design and implement post-construction invasive species monitoring program to detect invasive species presence and control (i.e., remove) new introductions. Details of the post construction invasive species monitoring program will be included in the Environmental Protection Plan.
491	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Adjust the alignment or clear off centre within the right-of-way to minimize forest fragmentation and the creation of new forest edges, where feasible. These details will be refined during detail design.	• Adjust the alignment or clear off centre within the right-of-way to minimize forest fragmentation and the creation of new forest edges, where feasible. These details will be refined during detail design.
492	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Construct temporary laydown areas and temporary construction camps on existing disturbed areas, wherever possible. The availability of existing disturbed areas for the construction of temporary laydown areas and temporary construction camps will be determined at detail design.	• Construct temporary laydown areas and temporary construction camps on existing disturbed areas, wherever possible. The availability of existing disturbed areas for the construction of temporary laydown areas and temporary construction camps will be determined at detail design.
493	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• - Avoid grubbing along newly created forest edges to promote natural regeneration which will quickly “seal” the new forest edge.
494	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Use reduced disturbance techniques during construction to prevent topsoil removal, preserve adequate substrate to promote natural revegetation (e.g., use low impact method to leave surface vegetation root mat intact until a site is proven for further development).
495	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Use progressive restoration on-site once temporary work areas (e.g., staging areas) are no longer needed. Progressive restoration techniques will be provided in the Environmental Protection Plan.
496	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Develop and implement a Project-specific Erosion and Sediment Control Plan. Erosion and sediment control measures will be developed and implemented in accordance with Ontario Provincial Standard Specifications for erosion and sediment control measures (Ontario Provincial Standard Specifications OPSS.PROV.804 and OPSS.MUNI.805). Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks and Ontario Ministry of Natural Resources, will be followed during Construction.	• Develop and implement a Project-specific Erosion and Sediment Control Plan. Erosion and sediment control measures will be developed and implemented in accordance with Ontario Provincial Standard Specifications for erosion and sediment control measures (Ontario Provincial Standard Specifications OPSS.PROV.804 and OPSS.MUNI.805). Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks and Ontario Ministry of Natural Resources, will be followed during Construction.

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497	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Regularly inspect and maintain Erosion and Sediment Control structures (e.g., sediment fences, rip rap or other sediment control structures) in accordance with Ontario Provincial Standard Specification OPSS.PROV 804 during all phases of the Project and modify measures as necessary. If control measures are not functioning properly, no further work will occur until the problem is resolved.
498	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Stabilize disturbed areas through revegetation with native plant species or other appropriate means (e.g., erosion control blankets) following completion of the works.
499	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Reschedule work or reduce traffic in areas where soils are considered to be excessively wet or where there is a heavy rainfall risk. Areas where a reduction in traffic are required will be defined during the detail design phase.	• Reschedule work or reduce traffic in areas where soils are considered to be excessively wet or where there is a heavy rainfall risk. Areas where a reduction in traffic are required will be defined during the detail design phase.
500	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Earthworks should be avoided during periods of heavy rainfall, particularly in areas adjacent to watercourses and wetlands.
501	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Adherence to federal and provincial regulations and guidelines regarding fuel and residue, chemical product, petroleum product, and hazardous substance collection and storage, use and handling, and disposal and treatment, such as the federal Transportation of Dangerous Goods Act, Ontario Dangerous Goods Transportation Act and the Ontario Environment Protection Act.
502	• Vegetation	• Vegetation	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Mitigation measures will be modified or enhanced as necessary through adaptive management.
503	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Environmental approval conditions, permits, or authorizations issued for Project Construction, including those issued from Environment and Climate Change Canada, the Ontario Ministry of the Environment, Conservation and Parks and the Ontario Ministry of Natural Resources, will be followed during the Construction Phase.

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504	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Limit the Project footprint, vegetation clearing and access road requirements to the extent feasible (e.g., share / coordinate access, concentrate temporary activities spatially, leave habitat outside of scoped Construction Disturbance Area, selective clearing, use existing access roads when available). Reducing cleared areas and the number of access roads through coordination, can reduce the number of cleared areas and access roads that will be present during and following construction that may provide access to previously inaccessible lands.
505	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Use progressive restoration on-site once temporary work areas (e.g., staging areas) are no longer needed and prevent ongoing use of inactive areas through combined use of physical control measures (rollback, remove of creek crossings, recontouring to surrounding topography, revegetation / reforesting and / or barriers at junctions with active access).
506	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Develop a policy for Project personnel while on shift or at temporary construction camps in regard to any plant or timber harvesting activities.
507	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Develop a wildfire prevention plan for the construction works that outlines protocols for hot works or any other activity with potential to trigger a fire, required fire suppression equipment, and a response plan if a fire is triggered.	• Develop a wildfire prevention plan for the construction works that outlines protocols for hot works or any other activity with potential to trigger a fire, required fire suppression equipment, and a response plan if a fire is triggered.
508	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Install access controls (e.g., gates and boulders) to control public vehicle travel on some temporary access routes and trails. Marten Falls First Nation continues to engage in discussions with the Province regarding the ownership and future operations and maintenance of the Community Access Road. Access and ownership including gating security/ID system will require further dialogue between the communities and the Province. • Install signage at regular intervals stating that any dumping is prohibited.	• Install access controls (e.g., gates and boulders) to control public vehicle travel on some temporary access routes and trails. Marten Falls First Nation continues to engage in discussions with the Province regarding the ownership and future operations and maintenance of the Community Access Road. Access and ownership including gating security/ID system will require further dialogue between the communities and the Province. • Install signage at regular intervals stating that any dumping is prohibited.
509	• Vegetation	• Vegetation	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Refine vegetation community mapping and field-verify the locations of sensitive or difficult to restore vegetation communities (e.g., organic wetlands) to inform the micrositing of temporary access roads, staging areas, camps, debris and / or timber stockpiles, as well as the centreline of the Community Access Road within the 100 m cleared right-of-way;	• Not applicable.

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510	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Collaborate with the design team during the micro-siting of temporary access roads, staging areas, camps, and debris and / or timber stockpiles to minimize effects on known Traditional Use Plant harvesting areas, where possible;	• Collaborate with the design team during the micro-siting of temporary access roads, staging areas, camps, and debris and / or timber stockpiles to minimize effects on known Traditional Use Plant harvesting areas, where possible;
511	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Reassess the status of Black Ash protection. If Schedule 1 of Ontario Regulation 6/24 has been updated to include the Construction Disturbance Area, a search for Black Ash trees shall be completed at the Ogoki River crossing. Other suitable habitat in the south portion of the Construction Disturbance Area may also need to be searched. The scope of this additional assessment will be determined in consultation with regulatory agencies. If Black Ash trees are anticipated to be affected by the Project, regulatory agencies (Ministry of the Environment, Conservation and Parks, Environment and Climate Change Canada) shall be consulted on next steps;	• Reassess the status of Black Ash protection. If Schedule 1 of Ontario Regulation 6/24 has been updated to include the Construction Disturbance Area, a search for Black Ash trees shall be completed at the Ogoki River crossing. Other suitable habitat in the south portion of the Construction Disturbance Area may also need to be searched. The scope of this additional assessment will be determined in consultation with regulatory agencies. If Black Ash trees are anticipated to be affected by the Project, regulatory agencies (Ministry of the Environment, Conservation and Parks, Environment and Climate Change Canada) shall be consulted on next steps;
512	• Vegetation	• Vegetation	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• - Complete an assessment of pit / quarry locations to identify potential effects due to changes in hydrogeology / hydrology on vegetation communities within the radius of influence for dewatering programs.	• Not applicable.
513	• Vegetation	• Vegetation	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• A peatlands groundwater monitoring and water budget study will be developed and implemented during detail design to determine groundwater flow and influence on peatland ecosystems (a component of Wetland Ecosystems). This will further inform the assessment of the potential Project impacts on Wetland Ecosystems and the associated mitigation recommendations that will be confirmed and refined at detail design.	• Not applicable.
514	• Vegetation	• Vegetation	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Airborne Electromagnetic (AEM) Surveying to produce continuous peat depth mapping which is critical for construction planning such as identifying saturated or sensitive areas that may require specialized engineering solutions.	• Not applicable.
515	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• A program designed to monitor groundwater on both sides of the Community Access Road and in areas of dewatering programs to establish pre-construction groundwater levels, as well as monitor groundwater levels during and post construction. This program will include pre-construction, during-construction and post-construction components.	• A program designed to monitor groundwater on both sides of the Community Access Road and in areas of dewatering programs to establish pre-construction groundwater levels, as well as monitor groundwater levels during and post construction. This program will include pre-construction, during-construction and post-construction components.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
516	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction • Operations and Maintenance •	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Locations of groundwater monitoring instruments (e.g., piezometers), will be also determined in consultation with vegetation ecologists and Indigenous communities so that effects on vegetation Valued Components are considered when determining their placement.	• Locations of groundwater monitoring instruments (e.g., piezometers), will be also determined in consultation with vegetation ecologists and Indigenous communities so that effects on vegetation Valued Components are considered when determining their placement.
517	• Vegetation	• Vegetation	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• An invasive species monitoring program designed to prevent, detect, and control (i.e., remove) invasive species and monitor areas where invasive species were removed;
518	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A program designed to monitor any rare plant, or species at risk protection measures that have been implemented (e.g., check for damage or failure of protection fencing and make repairs);
519	• Vegetation	• Vegetation	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A program to monitor vegetation community response to any potential changes in hydrology or hydrogeology throughout construction (e.g., in the vicinity of dewatering activities and either side of “floating road” segments); and
520	• Vegetation	• Vegetation	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• - A program to monitor whether erosion and sedimentation control measures are functioning as intended and to direct repair and adaptive management measures, where required.
521	• Vegetation	• Vegetation	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• - A program designed to monitor and manage rehabilitated and restored vegetation communities as well as any wetland offset areas. Details regarding the number of monitoring locations, level of effort and length of the monitoring period will be determined in subsequent project phases;
522	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• A program designed to monitor installed groundwater wells to confirm water flow beneath the road is being maintained. The number of monitoring locations, their placement and the length of the monitoring period will be determined in subsequent project phases; and	• A program designed to monitor installed groundwater wells to confirm water flow beneath the road is being maintained. The number of monitoring locations, their placement and the length of the monitoring period will be determined in subsequent project phases; and

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
523	• Vegetation	• Vegetation	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• A program designed to monitor vegetation community responses to any potential changes in hydrology or hydrogeology. Details regarding the number of monitoring locations and the length of the monitoring period will be determined in subsequent project phases.	• A program designed to monitor vegetation community responses to any potential changes in hydrology or hydrogeology. Details regarding the number of monitoring locations and the length of the monitoring period will be determined in subsequent project phases.
524	• Noise	• Noise	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Conduct construction activities during the daytime period (i.e., 7 a.m. to 7 p.m.). Nighttime work is not anticipated. In the event construction will occur beyond the daytime period, applicable mitigation measures will be reviewed and implemented as required.
525	• Noise	• Noise	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Check that equipment and machinery used on site is maintained in good working conditions through regular maintenance and inspection.
526	• Noise	• Noise	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Design access roads to minimize reversing, which is expected to minimize use of backup beepers, where possible.	• Not applicable.
527	• Noise	• Noise	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Locate and operate construction equipment as far as possible from points of reception.
528	• Noise	• Noise	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Engage with Indigenous communities and relevant stakeholders to coordinate the planned construction schedule before the start of construction and prior to specific noisy activities to minimize overlap with the timing of traditional land use activities (e.g., fall and spring hunting seasons).	• Engage with Indigenous communities and relevant stakeholders to coordinate the planned construction schedule before the start of construction and prior to specific noisy activities to minimize overlap with the timing of traditional land use activities (e.g., fall and spring hunting seasons).
529	• Noise	• Noise	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Where reasonable and practicable, turn off vehicles and equipment when idle, unless weather and / or safety conditions dictate the need for them to remain turned on and in a safe operating condition.
530	• Noise	• Noise	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Investigate noise concerns as they arise through a complaint resolution mechanism developed by the Owner / Operator whereby persons can contact the Project team if there are perceived noise issues.
531	• Noise	• Noise	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Operate vehicles and equipment to minimize impulsive noise, where possible.
532	• Noise	• Noise	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Maintain the surface of the roadway such that rough surface conditions are avoided.
533	• Noise	• Noise	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Operate pits and quarries in accordance with NPC-300 and applicable permitting requirements.

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534	• Noise	• Noise	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Conduct maintenance activities during the daytime period (i.e., 7 a.m. to 7 p.m.).
535	• Noise	• Noise	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Check that equipment and machinery used for site maintenance is maintained in good working conditions through regular maintenance and inspection.
536	• Noise	• Noise	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Where reasonable and practicable, turn off maintenance equipment when idle, unless weather and / or safety conditions dictate the need for them to remain turned on and in a safe operating condition.
537	• Noise	• Noise	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Operate maintenance equipment to minimize impulsive noise, where possible.
538	• Acoustic and Vibration	• Acoustic and Vibration	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Develop a Construction Vibration Workplan prior to the start of construction describing the construction schedule, list of construction equipment, list of point of reception locations (i.e., traditional land use, residential, heritage structures and utilities), applicable guidance documents including criteria and control measures.	• Not applicable.
539	• Acoustic and Vibration	• Acoustic and Vibration	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Consider the use of frequency-dependent vibration limits as more detailed information regarding the construction activities is known.
540	• Acoustic and Vibration	• Acoustic and Vibration	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Engage with Indigenous communities and relevant stakeholders to coordinate the planned construction schedule before the start of construction and prior to specific activities that may generate vibration to minimize overlap with the timing of traditional land use activities (e.g., fall and spring hunting seasons).	• Not applicable.
541	• Acoustic and Vibration	• Acoustic and Vibration	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Investigate vibration concerns as they arise through a complaint resolution mechanism whereby persons can contact the Project team if there are perceived vibration issues.
542	• Acoustic and Vibration	• Acoustic and Vibration	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• E4Locate and operate construction equipment as far as possible from points of reception.
543	• Acoustic and Vibration	• Acoustic and Vibration	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Blasting will be carried out in compliance with NPC-119.
544	• Acoustic and Vibration	• Acoustic and Vibration	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Quarry blasting will be carried out to comply with the conditions provided in the licence or aggregate permit, if a licence or aggregate permit exists or is required.
545	• Acoustic and Vibration	• Acoustic and Vibration	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Avoid operating equipment that is expected to generate significant vibrations at the same time. Operating them separately may reduce overall vibration levels;

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546	• Acoustic and Vibration	• Acoustic and Vibration	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Construction blasting will be carried out in compliance with the Ontario Provincial Standard Specification 120 and NPC-119.The Ontario Provincial Standard Specification 120 details items such as vibration limits, protective measures, pre-blast surveys and notification to nearby owners and tenants. All blasts which might impact local structures or disrupt humans will be monitored for ground and air vibrations;
547	• Acoustic and Vibration	• Acoustic and Vibration	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Blasting at temporary or existing quarries will be carried out to comply with the conditions provided in the licence or aggregate permit, if a licence or aggregate permit exists or is required;
548	• Acoustic and Vibration	• Acoustic and Vibration	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Health Canada	• Not applicable.	• Blasting delays and blast mats will be used, as appropriate, to control vibration and fly rock as required.
549	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Limit the Project footprint (Construction Disturbance Area) to the extent practicable;
550	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Minimize areas of vegetation clearing and soil disturbance and optimize the use of existing cleared areas for Project activity (i.e., site clearing will be kept to a minimum within the Community Access Road right-of-way);
551	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Develop and implement a Project-specific Soil Management Plan (e.g., soil stripping and handling recommendations, erosion and sediment control (based on the Ontario Ministry of Transportation's Erosion and Sediment Control Guide), reclamation procedures, best management practices and guidelines / policies);
552	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Minimize stripping and grading of terrain between the height of land (drainage divide) and the watercourse, or within 100 m of a watercourse crossing, whichever is less, and will be limited to that required to address engineering issues and safety concerns, such as the removal of hazards. If stripping or grading occurs within such areas, the site will be stabilized;
553	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Regrade areas with erosional gullies to conform to the local landform to maintain drainage patterns during decommissioning of temporary infrastructure;
554	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Strip the overburden from bedrock quarry areas before blasting, or excavating and manage in accordance with the On-Site and Excess Soil Management Regulation under the Ontario Environmental Protection Act;
555	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• All pits and quarries will be rehabilitated during their operational lifetime and once extraction is finished as per the Ontario Ministry of Natural Resources Aggregate Resources Act.
556	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Minimize or avoid the use of eskers or similar geological features for aggregate resources by using bedrock quarries or other sand and gravel resources whenever possible;
557	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Confirm suitable aggregate material in ridged landforms prior to extraction; and
558	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Avoid or minimize the amount of area for construction and subsequent operation facilities that are considered to have terrain that is either unstable or potentially unstable and design slopes for long-term stability. Stabilize slopes, if required;

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559	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Have construction activities occur under frozen or dry conditions as much as possible;
560	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Any exposed mineral soil between the height of land (drainage divide) and the watercourse, or within 100 m of a watercourse crossing, whichever is less, will be kept to an absolute minimum and will be limited to that required to address engineering issues and safety concerns, such as the removal of hazards. If stripping or grading occurs within such areas, the site will be left at a stable angle;
561	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Use low road grades and proper drainage to reduce potential terrain instability, where feasible;
562	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Implement progressive reclamation and revegetation of disturbed areas no longer required for construction.
563	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Select erosion and sediment control products that correspond with the nature and duration of the Project as recommended in the Soil Management Plan;
564	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Regularly inspect and maintain erosion and sediment control structures (e.g., sediment fences, rip rap or other sediment control structures) during all Project phases and modify measures as necessary. If control measures are not functioning properly, no further work will occur until the problem is resolved;
565	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Limit duration of soil exposure; phase activities whenever possible, and restore disturbed areas as soon as possible (i.e., implement appropriate erosion and sediment control, and progressive reclamation and revegetation of disturbed areas no longer required);
566	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Control potential erosion by utilizing an effective road design (including use of engineered culverts and bridges);
567	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Selectively cut vegetation and restrict clearing and grubbing within areas with steep slopes or soils prone to risk of erosion;
568	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Do not include mineral soil in the debris piles during clearing;
569	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Use clearing equipment appropriate to the nature of work being conducted that minimizes surface disturbance, soil compaction, and topsoil loss (e.g., equipment with low ground pressure tracks or tires, blade shoes, and brushes), where feasible. For example, avoid using large machinery when hand tools or smaller scale machinery could be used;
570	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Regrade areas with vehicle ruts and erosion gullies to conform to the local landform to maintain drainage patterns;
571	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• To the extent practicable, avoid work in sensitive areas (i.e., erosive soils, wetland features, and fish habitats) during periods that may result in high flow volumes and / or increased erosion and sedimentation (e.g., spring freshet);
572	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Install and regularly maintain mitigation measures prior to the commencement of any site clearing, grubbing, excavation, filling, or grading works, prior to and after runoff events;
573	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Where soils are prone to wind erosion, apply tackifier, cover, and seed, apply water or pack the topsoil stockpiles and windrows with approved equipment, especially during periods of high erosion potential (i.e., summer and fall);

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574	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• When practicable, consider pre-fabrication (e.g., parts of structures) at an approved off-site location to minimize on-site construction effects;
575	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Minimize steepness and length of slopes of disturbed areas and stockpiled soils;
576	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Avoid placing soil stockpiles near waterbodies or drainage features (i.e., a minimum distance of 100 m from a watercourse);
577	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Manage soil in accordance with the Best Management Practices for Aggregate Pit and Quarry Rehabilitation in Ontario (Madeh et al., 2021);
578	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Manage any excess construction soil in accordance with the On-Site and Excess Soil Management Regulation under the Ontario Environmental Protection Act.
579	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Use low pressure or rubber tracked vehicles for the early phase of the Community Access Road construction season and only higher-pressure equipment when the ground surface is strong enough to prevent compaction and rutting;
580	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Avoid construction activities on highly saturated soil (primarily during or immediately after rain events or during freshet) where practicable or suitable ground equipment will be utilized to prevent unnecessary soil damage through rutting, for example. Crews should be prepared to stop work in these conditions;
581	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• De-compact subsoils, temporary access trails and soils damaged during wet weather.
582	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Detail Design / Pre-Construction • Construction • Operations and Maintenance;	• Ministry of the Environment, Conservation and Parks	• Develop and implement a Spill Prevention and Emergency Response Plan, in the event of a spill;	• Develop and implement a Spill Prevention and Emergency Response Plan, in the event of a spill;
583	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Adhere to Standard Operating Procedures for fuel handling;
584	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Construction machinery will arrive on site in a clean condition, free from leaks;
585	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Construction crews will always keep a spill response kit on site during the work;
586	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Contain and clean up spills immediately in accordance with provincial regulatory requirements and the Spill Prevention and Emergency Response Plan;
587	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Transport fuel and hazardous materials in approved containers in licensed vehicles;
588	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Require construction crews and drivers of vehicles using the Community Access Road system to report spills to the Ontario Spills Action Centre at 1-800-268-6060;
589	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Provide and make sure holding bats are readily available, so there is less chance of spillage;

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590	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Provide adequate lighting at fuelling stations and monitoring so that people clean up after any spills;
591	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Provide various pit stops along the Community Access Road where drivers can check their tanks and valves; and
592	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Provide barriers along the sides of bridges to prevent other chemicals from spilling into waterways beneath them.
593	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Operations and maintenance machinery will arrive on site in a clean condition, free from leaks;
594	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Maintenance crews will always keep a spill response kit on site during the work;
595	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Contain and clean up spills immediately in accordance with provincial regulatory requirements and the Spill Prevention and Emergency Response Plan;
596	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Mitigation measures that will be implemented during the Construction and Operation and Maintenance Phases to reduce changes to soil from emissions and deposition include those listed in the Air Quality and Greenhouse Gas Existing Conditions and Effects Assessment Technical Support Document (Dillon 2026b).
597	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• The Soil Management Plan will be developed and followed for Construction and Operations and Maintenance Phases.	• Not applicable.
598	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• Permitted pits and quarries developed for the construction, operation, and maintenance of the Community Access Road will follow the progressive and final rehabilitation requirements outlined in the approved site plans (Government of Ontario 2020) under the Aggregate Resources Act.	• Not applicable.
599	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• Develop and implement a geochemical testing and monitoring program to assess the potential for acid rock drainage from any soils, or bedrock, which will be exposed during aggregate extraction.	• Not applicable.
600	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• Develop and implement a Spill Prevention and Emergency Response Plan.	• Not applicable.
601	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• Develop and implement a Blasting and Communication Management Plan.	• Not applicable.
602	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• Work with the Ministry of Transportation, and the Northern Road Link and Webequie Supply Road Project Teams to develop a coordinated approach to permafrost assessment.	• Not applicable.
603	• Physio, Terrain, Soils	• Physio, Terrain, Soils	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• Develop and follow recommendations outlined in a Permafrost Management Plan.	• Not applicable.
604	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks	• The owner / operator to establish working groups with Marten Falls First Nation and Aroland First Nation to discuss community concerns and proposed topics, including those in relation to changes in population or social demographics.	• The owner / operator to establish working groups with Marten Falls First Nation and Aroland First Nation to discuss community concerns and proposed topics, including those in relation to changes in population or social demographics.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
605	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to house workers in autonomous camps to limit demographic shifts and disruptions in community.
606	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks	• The owner / operator to establish working groups with Marten Falls First Nation and Aroland First Nation to discuss construction-related issues and unemployment by identifying and removing employment barriers, offering job readiness programs, and providing counseling and addiction support services to support community members.	• The owner / operator to establish working groups with Marten Falls First Nation and Aroland First Nation to discuss construction-related issues and unemployment by identifying and removing employment barriers, offering job readiness programs, and providing counseling and addiction support services to support community members.
607	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks	• Owner / operator to implement Community Readiness Strategies and Adaptive Management Plans to assess and respond to community needs.	• Owner / operator to implement Community Readiness Strategies and Adaptive Management Plans to assess and respond to community needs.
608	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks	• Owner / operator to provide information on available opportunities to help community members obtain necessary qualifications.	• Owner / operator to provide information on available opportunities to help community members obtain necessary qualifications.
609	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks	• Owner / operator to create a Local Training Plan to complete a local skills assessment and utilize local labour force.	• Owner / operator to create a Local Training Plan to complete a local skills assessment and utilize local labour force.
610	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks	• Owner / operator to offer ongoing job readiness programs and coordinate training timing to support workforce transition and career growth.	• Owner / operator to offer ongoing job readiness programs and coordinate training timing to support workforce transition and career growth.
611	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks	• Owner / operator to implement Diversity, Equity, and Inclusion hiring policy, enhanced through training programs, job fairs, and outreach, to actively prioritize women in construction-related employment opportunities and reduce gender disparities in the work force.	• Owner / operator to implement Diversity, Equity, and Inclusion hiring policy, enhanced through training programs, job fairs, and outreach, to actively prioritize women in construction-related employment opportunities and reduce gender disparities in the work force.
612	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to gradually integrate new workers into the workforce through shorter days and shift rotations.
613	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• All construction workers to be housed in autonomous work camps to limit disruptions to communities.
614	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to create a Local Content Plan to utilize a certain dollar value or share towards local businesses and contractors.
615	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to consult with local businesses that would be potentially affected by work zone effects and determine the optimal times and conditions for the construction to take place, such as during off-peak times.
616	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks	• Owner / operator will develop an Equipment Mobilization Plan with both Marten Falls First Nation and Aroland First Nation for the movement of equipment, personnel, supplies, and resources. Where possible, construction traffic should be separated from community traffic to improve safety and minimize disruptions. The mobilization plan should also include a clear communications strategy to keep the community informed of the mobilization schedule, ensuring residents are aware of periods of increased heavy equipment traffic on the winter road.	• Owner / operator will develop an Equipment Mobilization Plan with both Marten Falls First Nation and Aroland First Nation for the movement of equipment, personnel, supplies, and resources. Where possible, construction traffic should be separated from community traffic to improve safety and minimize disruptions. The mobilization plan should also include a clear communications strategy to keep the community informed of the mobilization schedule, ensuring residents are aware of periods of increased heavy equipment traffic on the winter road.

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617	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator, when possible, will transport employees on a charter flight.
618	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• The owner / operator will establish working groups with Marten Falls First Nation and Aroland First Nation to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, including topics avoiding pressure on local, essential services and infrastructure.
619	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• All construction workers (including on- and off-reserve members) will be housed in autonomous work camps equipped with independent water, wastewater, and power systems. These systems need to be properly maintained to reduce reliance on community infrastructure and to prevent contamination risks.
620	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• The owner / operator will develop waste management policies to minimize waste production and support responsible disposal. - --Collaboration with the community will be prioritized to develop effective construction waste management and disposal strategies, incorporating local input.
621	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks	• The owner / operator will establish a secure fuel storage facility and provide a reliable fuel supply throughout the construction season. Fuel deliveries will be planned in advance and transported via the winter road, reducing reliance on costly air transport and preserving community fuel resources. All fuel storage sites will comply with safety and environmental regulations to prevent spills and contamination.	• The owner / operator will establish a secure fuel storage facility and provide a reliable fuel supply throughout the construction season. Fuel deliveries will be planned in advance and transported via the winter road, reducing reliance on costly air transport and preserving community fuel resources. All fuel storage sites will comply with safety and environmental regulations to prevent spills and contamination.
622	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks	• The owner / operator to establish working groups with Marten Falls First Nation and Aroland First Nation to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, including topics associated with housing adequacy, converting construction camps to permanent housing, etc.	• The owner / operator to establish working groups with Marten Falls First Nation and Aroland First Nation to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, including topics associated with housing adequacy, converting construction camps to permanent housing, etc.
623	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks	• House workers in autonomous camps to limit demographic shifts and reduce pressure on community housing.	• House workers in autonomous camps to limit demographic shifts and reduce pressure on community housing.
624	• Community Well-Being	• Community Well-Being	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• The owner / operator to establish working groups with Marten Falls First Nation and Aroland First Nation to meet regularly to discuss community-proposed topics in relation to the Community Access Road, including topics associated with housing, such as monitoring of housing demand and adjustments to meet changes in housing needs.
625	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to establish working groups with Marten Falls First Nation, Aroland First Nation, and other interested Indigenous communities from the Regional Study Area, to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, including where to appropriately locate safety pull out areas to promote access, and other traditional harvesting issues.

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626	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks	• Prior to construction, owner / operator will develop Access Management Plans with Marten Falls First Nation and Aroland First Nation in relation to hunting, trapping and gathering activities. All activities must conform to licensing requirements and adhere to the rules and regulations under the Ministry of Natural Resources.	• Prior to construction, owner / operator will develop Access Management Plans with Marten Falls First Nation and Aroland First Nation in relation to hunting, trapping and gathering activities. All activities must conform to licensing requirements and adhere to the rules and regulations under the Ministry of Natural Resources.
627	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Provide flexible work schedules during key hunting, trapping, and gathering seasons to support continued access to traditional food sources.
628	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to sponsor community-led harvesting initiatives.
629	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to provide Training and Work Materials in Indigenous Languages. Offer onboarding materials, safety protocols, and job-related paperwork in Indigenous languages alongside English to provide language accessibility for all workers.
630	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to implement multi-lingual worksite signage. Reduce language barriers at the worksite by using multi-lingual signage at work sites, including directional signs, safety notices, workplace policies, and equipment labels, to promote the use of Indigenous languages in the workplace.
631	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to provide Cultural Sensitivity and Language Awareness Training. Educate non-Indigenous supervisors and workers on the importance of Indigenous languages in cultural identity, knowledge transmission, and community well-being. Encourage an inclusive workplace where traditional language use is supported and valued.
632	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to implement a Zero-Tolerance Policy for Language Discrimination. Establish clear workplace policies ensuring that Indigenous workers are not discouraged from speaking their traditional language. Supervisors and project managers should actively reinforce language inclusivity and address any instances of discrimination or bias.
633	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to introduce a cultural safety mechanism. Introduce a workplace mechanism, such as a cultural safety flag, allowing employees to pause work or request support if they feel uncomfortable due to language-related issues. Propose a Cultural Safety and Stop Work Protocol.
634	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to collaborate with Marten Falls First Nation and Aroland First Nation to provide mental health counseling, mentorship, and peer support at work camps, with on-site Elders or cultural liaisons to promote emotional and cultural well-being, support skill development and workplace adjustment.
635	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to implement a gradual work force integration for community members, introducing shorter workdays and shift rotations (e.g., starting with 2-3 days on with a day or two break instead of 10 consecutive days) to ease new workers into construction roles.

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636	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to provide cultural safety training for all workers, including supervisors and non-Indigenous employees, to complete training on Indigenous culture, traditions, and historical experiences, to promote a safe and inclusive work environment.
637	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to hold training session on violence and harassment prevention.
638	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to enforce a zero-tolerance policy for workplace discrimination so that Indigenous workers feel respected and included.
639	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• The owner / operator will establish a working group with Marten Falls First Nation and Aroland First Nation to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, which could include topics in relation offering mental health supports, counselling and addiction support services.
640	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• All construction workers (including on- and off-reserve members) will be housed in autonomous work camps to limit demographic shifts and limit disruptions to social structures and community dynamics.
641	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• The owner / operator to develop and implement monitoring and enforcement, including regular security checks at work camps and entry points (e.g., airport) for alcohol and substances to prevent entry into the community.
642	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to collaborate with the community (Marten Falls First Nation and Aroland First Nation) to provide mental health counseling, addictions counseling, mentorship, and peer support at work camps, with on-site Elders or cultural liaisons to promote emotional and cultural well-being.
643	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to enforce a zero-tolerance policy for alcohol and substance use at work camps.
644	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to provide cultural and recreational activities (e.g., cards, board games, sports), when possible, to promote well-being and reduce boredom or stress-related substance use.
645	• Community Well-Being	• Community Well-Being	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to form a Working Group with Marten Falls First Nation, Aroland First Nation, and other interested Indigenous communities from the Regional Study Area, to co-develop a Safety and Wellness Plan that addresses project-related mental health and wellbeing concerns.
646	• Community Well-Being	• Community Well-Being	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to form a Working Group with Marten Falls First Nation, Aroland First Nation, the Road Operator, and the Road Owner to co-develop a Safety and Wellness Plan that addresses project-related substance use concerns.
647	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Construction workers will be housed in autonomous work camps, reducing pressure on community water resources.
648	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to implement temporary water storage tanks or other measures to accommodate peak water demands during construction.

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649	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to establish working groups with Marten Falls First Nation, Aroland First Nation, and other interested Indigenous communities from the Regional Study Area—including Constance Lake First Nation, Fort Albany First Nation, Attawapiskat First Nation, Kashechewan First Nation, Kasabonika Lake First Nation, Kitchenuhmaykoosib Inninuwug First Nation, Kingfisher Lake First Nation, Eabametoong First Nation, Mishkeegogamang First Nation, Neskantaga First Nation, Nibinamik First Nation, Wapekeka First Nation, Wawakapewin First Nation, Webequie First Nation, Weenusk First Nation, Wunnumin Lake First Nation, Animbiigoo Zaagi'igan Anishinaabek First Nation, Ginoogaming First Nation, and Long Lake #58 First Nation—to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, including concerns related to contamination of ground and surface water.
650	• Community Well-Being	• Community Well-Being	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Surface water and groundwater is not to be used as potable water. Water treatment will mitigate any potential negative effects.
651	• Community Well-Being	• Community Well-Being	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to establish working groups with Marten Falls First Nation, Aroland First Nation, and other interested Indigenous communities from the Regional Study Area, to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, including concerns related to contamination of ground and surface water.
652	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to establish working groups with Marten Falls First Nation, Aroland First Nation, and other interested Indigenous communities from the Regional Study Area, to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, including identifying key harvesting areas to implement measures that can minimize construction disturbances to traditional food resources during harvesting seasons, adjusting construction activities to avoid peak harvesting periods etc.
653	• Community Well-Being	• Community Well-Being	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to establish working groups with Marten Falls First Nation, Aroland First Nation, and other interested Indigenous communities from the Regional Study Area, to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, including discussions about pathways to contamination through traditional foods and opportunities to prevent contamination e.g. signage related to washing dust off gathered foods etc.
654	• Community Well-Being	• Community Well-Being	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner to work with Ontario's Ministry of Natural Resources to encourage more frequent patrols of Conservation Officers along the Community Access Road to confirm hunters and fishermen are not exceeding their limits and that they have the proper tags and licenses.
655	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Owner / operator to work with communities and governments, as required, to support education and development of Indigenous Conservation Officer (Game Warden) program.	• Owner / operator to work with communities and governments, as required, to support education and development of Indigenous Conservation Officer (Game Warden) program.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
656	• Community Well-Being	• Community Well-Being	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to sponsor community-led harvesting initiatives in Marten Falls First Nation and Aroland First Nation.
657	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• - Explore opportunities to increase total Driver Licence holders, alongside the Ministry of Transportation, including partnerships with third-party remote licence providers.	• Explore opportunities to increase total Driver Licence holders, alongside the Ministry of Transportation, including partnerships with third-party remote licence providers.
658	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Implement driver safety training tailored to winter road conditions and remote community travel.
659	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks	• Develop, with the Ministry of Health, on-site safety and emergency preparedness programs to include fire suppression systems, medical care, security personnel, monitor safety compliance, emergency response and clear communication protocols between construction teams and emergency responders.	• Develop, with the Ministry of Health, on-site safety and emergency preparedness programs to include fire suppression systems, medical care, security personnel, monitor safety compliance, emergency response and clear communication protocols between construction teams and emergency responders.
660	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Comply with all relevant health and safety requirements, including but not limited to, preparation of a Health and Safety Policy.
661	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to establish working groups with Marten Falls First Nation, Aroland First Nation, and other interested Indigenous communities from the Regional Study Area, to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, including: ○ financial literacy programs for workers and families to help manage income fluctuations and reduce financial stress, addressing economic disparities that could contribute to resentment and lateral violence. ○ measures to strengthen cultural programming and land-based activities to reinforce community cohesion and well-being. Strengthening cultural identity and offering community-driven programs can provide positive coping mechanisms for workers and families experiencing stress due to shift work and can offer a protective factor against violence and social disruption by strengthening support networks and reducing isolation. ○ supports for unemployed community members by identifying employment barriers and offering job readiness programs to support community members facing unemployment.
662	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• House workers in autonomous work camps to limit unsupervised interactions with the community and prioritize gender-divided living quarters in the work camps.
663	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Enforce zero-tolerance policies for harassment and violence.
664	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Provide cultural safety and language awareness training for all workers, including supervisors and non-Indigenous employees, to complete training on Indigenous culture, traditions, and historical experiences to understand Indigenous cultural norms and appropriate community interactions to reduce instances of harassment or violence.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
665	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Comply with the Human Rights Code (Ontario, 2024b) to prevent workplace discrimination and uphold employee rights to reduce work force tensions.
666	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Mental health counseling, mentorship, and peer support at work camps to reduce stress-related aggression. On-site Elders or cultural liaisons will offer emotional support and traditional guidance to workers.
667	• Community Well-Being	• Community Well-Being	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• The owner / operator will establish a working group with Marten Falls First Nation and Aroland First Nation to meet regularly to discuss community-proposed topics in relation to the road safety during operation of the Community Access Road, such as traffic challenges; emergency preparedness plans, safe driving campaigns etc.
668	• Community Well-Being	• Community Well-Being	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• The owner to engage with law enforcement to implement increased monitoring; prepared for the opening of the road, allowing for an increased presence to monitor traffic, enforce speed limits, and deter impaired or reckless driving.
669	• Community Well-Being	• Community Well-Being	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• The owner to consider alternative methods to using salt on roadways to prevent attracting wildlife, minimizing the potential for vehicle-wildlife collisions.
670	• Community Well-Being	• Community Well-Being	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• The owner to consider the installation of road signage in both English and traditional languages indicated speed limits, sharp turns, wildlife crossings, and other hazards.
671	• Community Well-Being	• Community Well-Being	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• The owner / operator to establish working groups with Marten Falls First Nation, Aroland First Nation, and other interested Indigenous communities from the Regional Study Area, to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, including, could include the consideration of developing community-based violence prevention programs, including safe shelters and crisis support for victims; strengthening mental health, addictions, harm reduction programs, and family support services to address root causes.
672	• Community Well-Being	• Community Well-Being	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• The owner / operator to establish working groups with Marten Falls First Nation, Aroland First Nation, and other interested Indigenous communities from the Regional Study Area, to meet regularly to discuss community-proposed topics in relation to the construction or operation and maintenance of the Community Access Road, including concerns related to the biophysical effects on human health during construction, such as air, noise and vibration, sediment, soil, ground and surface water, and land-use.
673	• Community Well-Being	• Community Well-Being	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Marten Falls First Nation or the owner / operator(s), will prepare and implement a Spill Prevention and Emergency Response Plan that describes specific measures that would be implemented if a spill occurred
674	• Community Well-Being	• Community Well-Being	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Spill and Leak protocols and response should include involvement and input form the biophysical human health team. This team should review all spill responses for consideration/ development of sampling plans and health impact assessment of potential for short- and long-term risk following spill events

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675	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• Implement mitigations as required by specific technical disciplines.	• Not applicable.
676	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• Communicate with other projects to limit spatial and temporal overlap.	• Not applicable.
677	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• Data sharing to bolster monitoring information	• Not applicable.
678	• Community Well-Being	• Community Well-Being	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• During construction and operations, adhere to required mitigations to protect surface water and groundwater. Conduct monitoring as per technical disciplines studies.
679	• Community Well-Being	• Community Well-Being	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Review monitoring to evaluate for potential impacts to human health
680	• Community Well-Being	• Community Well-Being	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to develop a community-based reporting system that enables community members and employees to report concerns, including those related to violence, harassment, and crime, providing an option for anonymous reporting.
681	• Community Well-Being	• Community Well-Being	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to provide training and hand-off of all reporting mechanisms that are implemented by the owner / operator, so that the data remains in the hands of the community to support long-term response and prevention.
682	• Community Well-Being	• Community Well-Being	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• During construction and operations, adhere to required mitigations to protect surface water, groundwater, soils, sediment, and air quality and minimize noise levels. Conduct monitoring as per technical disciplines studies.
683	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• To address potential effects anticipated during Construction and Operation, the owner / operator will establish several different working groups with Marten Falls First Nation and Aroland First Nation to meet regularly to discuss community-proposed topics in relation to the Community Access Road. In many cases, these Working Groups should be established in Detail design and then carry thru construction and, potentially, into the operations phase.	• To address potential effects anticipated during Construction and Operation, the owner / operator will establish several different working groups with Marten Falls First Nation and Aroland First Nation to meet regularly to discuss community-proposed topics in relation to the Community Access Road. In many cases, these Working Groups should be established in Detail design and then carry thru construction and, potentially, into the operations phase.
684	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Proposed topics for the working groups are summarized in Table 7-25.	• Proposed topics for the working groups are summarized in Table 7-25.
685	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Note: In some instances, it is noted that the working groups should include other interested Indigenous communities or regional municipal communities given nature of predicted effects within the LSA.	• Note: In some instances, it is noted that the working groups should include other interested Indigenous communities or regional municipal communities given nature of predicted effects within the LSA.
686	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• Develop a comprehensive inventory of the labour and business / procurement / contracting requirements for the project by identifying project requirements (i.e., labour needs, business / procurement needs and contracting needs); and categorizing requirements by time frame (i.e., short term, medium term, and long term).	• Not applicable.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
687	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• - Develop a comprehensive inventory of the Marten Fall First Nation and Aroland First Nation current labour and business / procurement / contracting capacities and capabilities to address the project's requirements by engaging Marten Falls and Aroland leaders and members virtually; collecting data (i.e., labour market information; and business and procurement data); analyzing and categorizing skills inventory, business capabilities and contracting experience.	• Not applicable.
688	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• Conduct a labour and business / procurement / contracting demand and supply gap analysis and develop initiatives to address the gaps.	• Not applicable.
689	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• Create a Local Content Plan to utilize a certain dollar value or share of operation and maintenance towards local businesses and contractors.	• Not applicable.
690	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• The owner / operator will establish working groups with Marten Falls First Nation and Aroland First Nation to meet regularly to discuss community-proposed topics in relation to the construction of the Community Access Road, including topics avoiding pressure on local, essential services and infrastructure.	• Not applicable.
691	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• The owner / operator will develop waste management policies to minimize waste production and support responsible disposal. Collaboration with the community will be prioritized to develop effective construction waste management and disposal strategies, incorporating local input.	• Not applicable.
692	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• Chemical analysis of quarry materials to be used in road construction should be completed during detail design. These materials will ultimately make up the majority of the fugitive dust created during road construction and operations. Interpretation of this information can be used to source materials with the least potential impacts and to support that appropriate mitigations are implemented.	• Not applicable.
693	• Community Well-Being	• Community Well-Being	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks	• Residual effects to surface water, groundwater, soils, and sediment, including deposition of dust onto surface water soils and sediment, were not fully evaluated in the individual technical studies, and modelling was not completed.	• Not applicable.
694	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction • Operations and Maintenance	• Environment and Climate Change Canada • Ministry of Environment, Conservation and Park	• Not applicable.	• Enforce breaks for workers during the construction, provide protective equipment and air conditions in camps, and implement flexible work schedules during heat waves.
695	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Increase thermal efficiency (e.g., insulation, ventilation, choice of materials, green or pale coloured/reflective roofs) of construction trailers to decrease indoor air temperature, as well as power demand from cooling during hot days.
696	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Use white "cooling" boxes for outdoor electrical equipment (e.g., on the roof tops) to prevent overheating of power and heating equipment.
697	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Implement an alert protocol designed to identify and communicate hot weather and heat wave conditions that could impact the well-being of community members, visitors, and workers.

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698	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Communicate the health risks of extreme heat events with the public, as recommended by Health Canada (2011). For example, share heat wave warnings and health safety tips on display signs in construction camps and in community buildings.
699	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Limit the exposure of workers to extreme temperatures and heat waves by modifying physically demanding work schedules during periods of increased temperature, humidity, or insulation
700	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Provide designated cool, shaded, or air-conditioned areas for workers in order to limit their exposure to extreme temperatures and heat.
701	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Design drainage systems to cope with heavy rainfall with well defined overland flow routes. On larger fill sites with expansive grade slopes, confirm that erosion protection measures are employed (blanket to foster revegetated growth, synthetic ditch checks, straw wattle and others) to slow down erosive forces.
702	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Use non-moisture susceptible building materials so that work can continue during rain events (ex quarried rock, granular fill materials)
703	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Raising the bridge deck will increase the hydraulic capacity of bridges, limiting damages sustained during flooding event.
704	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Increase inspections and maintenance of construction trailers and other installations to prevent the worsening of wear and tear during heavy rainfall and flooding events.
705	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Develop and implement an Emergency Preparedness and Management Plan in the case of a heavy rainfall or flood event.
706	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Communicate the conditions of the roadway with the public in order to encourage people to be careful when traveling. For example, share the status of plowing operations in construction camps and in community buildings.
707	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Develop and implement an Emergency Preparedness and Management Plan in the case of a heavy snowfall event.
708	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Implement early warning systems to prepare for wildfire events and make informed decisions about construction camp closures.
709	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Remove ground litter and high ignition vegetation (e.g., dead, dying, dried and overmature trees) on a regular basis to limit the presence of fire fuel around construction camp infrastructure, especially near explosives storage.

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710	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Keep grasses near the construction camp infrastructure cut at less than 10 cm in height during the fire season.
711	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Install an external unmanned sprinkler system and have sources of water available (especially near storage of explosive materials).
712	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• The use of timber in bridge structures is discouraged, and steel/concrete shall be incorporated.
713	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Monitor air quality and limit the exposure of workers to smoke by modifying work schedules during wildfire season. Keep monitoring the following website for smoke intensity and forecasts (https://firesmoke.ca/forecasts/current/)
714	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Communicate the health risks of wildfires and wildfire smoke with the public. For example, share wildfire, road, and evacuation status on display signs in construction camps and in community buildings.
715	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Develop and implement an Emergency Preparedness and Management Plan in the case of a wildfire event.
716	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Secure construction equipment and material in preparation of thunderstorms (heavy wind).
717	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Communicate the health risks of thunderstorms with the public. For example, track and share status of thunderstorms on display signs in construction camps and in community buildings.
718	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Use the following website to confirm threat (https://weather.gc.ca/lightning/index_e.html).
719	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Develop and implement an Emergency Preparedness and Management Plan in the case of a thunderstorm.
720	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Establish a storm warning system that alerts road users in advance so that they can plan their travel.
721	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Establish and communicate guidelines on what to do in case of a thunderstorm to road users.
722	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Schedule inspections and maintenance of culverts to prevent the worsening of wear and tear following the winter season.

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723	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• On larger fill sites with expansive grade slopes, confirm that erosion protection measures are employed (blanket to foster revegetated growth, synthetic ditch checks, straw wattle, and others) to slow down erosive forces.
724	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Increase inspections and maintenance after extreme rainfall event to prevent the worsening of wear and tear of the road during heavy rainfall and flooding events.
725	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Conduct frequent grading and maintenance of the road to fill potholes and maintain a crowned (4%) surface that can handle heavy rainfall more effectively.
726	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Proceed to scour monitoring to limit the extent of the damaged to bridges during a flood.
727	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Increase inspections and maintenance to prevent the worsening of wear and tear of the rest stops and road turnouts after heavy rainfall and flooding events.
728	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Communicate the condition of the road with the public in order to encourage people to be careful when traveling. For example, share the location and status of floods or road washouts in construction camps and in community buildings. Include the road in the internet feed for road conditions reporting.
729	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Conduct regular maintenance and inspection of the road and its cleared 60m right-of way to prevent the accumulation of flammable debris and improve safe travel.
730	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Implement early warning systems to prepare for wildfire events and make informed decisions about road closures.
731	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Conduct regular maintenance and inspection of bridges to prevent the accumulation of flammable debris and improve safe travel.
732	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Increase inspections and maintenance after wildfire events to prevent the worsening of wear and tear of bridges and culverts.
733	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Keep monitoring the following website for smoke intensity and forecasts (https://firesmoke.ca/forecasts/current/).
734	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Conduct frequent grading and maintenance of the road to fill potholes and maintain a smooth surface that can handle heavy rainfall more effectively

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735	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Keep backup solar streetlights in stock in order to be able to replace quickly any damaged equipment after a thunderstorm.
736	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Increase inspections and maintenance after a thunderstorm to prevent the worsening of wear and tear of the rest stops and road turnouts.
737	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Implement an alert protocol designed to identify and communicate hot weather and heat wave conditions that could impact the well-being of community members, visitors, and workers.
738	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Design drainage systems to handle heavy rainfall, with well defined overland flow routes.
739	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Choose oversized culverts to account for the increase in the recurrence of floods and extreme rainfall of about 172 mm (i.e., a 100-year rainfall in 2071-2100).
740	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Communicate the condition of the road to the public to encourage people to be careful when traveling. For example, share the location and status of floods or road washouts in construction camps and in community buildings. Include the road in the internet feed for road conditions reporting.
741	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Implement early warning systems to prepare for wildfire events and make informed decisions about road closures.
742	• Climate Adaptation and Resiliency	• Climate Adaptation and Resiliency	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Establish a storm warning system that alerts road users in advance so that they can plan their travel.

743	• Peatlands	• Peatlands	• Detail Design / Pre-Construction
			• Construction
				• Ministry of Natural Resources
				• Environment and Climate Change Canada
				• Fisheries and Oceans Canada
				• Ministry of Transportation
					• Mitigation measures that will be implemented during the Construction Phase to minimize direct loss to peatland ecosystems wherever and whenever possible are outlined below.
					• Limit vegetation clearing to within the 100 m right-of-way and reduce to less than this width whenever and wherever possible. Specifically,
					  ○ Minimize clearing widths in peatland ecosystems to the extent feasible, given the difficulty of effective restoration of these ecosystems.
					  ○ Adjust the alignment or clear off centre within the right-of-way where warranted, to minimize effects on peatland ecosystems. These details will be refined during detail design, prior to construction.
					  ○ Limit clearing of riparian vegetation (i.e., within 30 m of waterbodies) to the extent possible and to the requirement of the access road and alignment clearing width only.
					  ○ Locate temporary access roads, staging areas, camps, and debris and / or timber stockpiles in less sensitive ecosystems (e.g., upland ecosystems), where feasible. Avoid peatland communities for temporary features wherever feasible.
						• Mitigation measures that will be implemented during the Construction Phase to minimize direct loss to peatland ecosystems wherever and whenever possible are outlined below.
						• Limit vegetation clearing to within the 100 m right-of-way and reduce to less than this width whenever and wherever possible. Specifically,
						  ○ Minimize clearing widths in peatland ecosystems to the extent feasible, given the difficulty of effective restoration of these ecosystems.
						  ○ Adjust the alignment or clear off centre within the right-of-way where warranted, to minimize effects on peatland ecosystems. These details will be refined during detail design, prior to construction.
						  ○ Limit clearing of riparian vegetation (i.e., within 30 m of waterbodies) to the extent possible and to the requirement of the access road and alignment clearing width only.
						  ○ Locate temporary access roads, staging areas, camps, and debris and / or timber stockpiles in less sensitive ecosystems (e.g., upland ecosystems), where feasible. Avoid peatland communities for temporary features wherever feasible.

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744	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	Not applicable.	• Prepare and Implement a Vegetation Restoration Plan that includes measures specific to peatland ecosystems and peatland restoration, including peat stockpile management. This plan will be developed through engagement and consultation with Indigenous communities and integration of local Indigenous Knowledge and stewardship protocols.: o Given the difficulty of restoring peatland environments and the overall size of the Construction Disturbance Area, if it's determined that restoration of all temporarily impacted peatland communities is not feasible, additional examination of the Construction Disturbance Area may be required to determine where peatland restoration efforts are required. Restoration techniques for peatland communities should follow established practices that have previously been shown to be successful in the establishment of appropriate ecological conditions including plant assemblages (i.e., the re-establishment of peat moss layers) and hydrology. Consideration should also be given to the type of community being restored. For example, the Moss Layer Transfer Technique is one method generally used for the re-establishment of bog and poor fen systems (Quinty et al., 2019). However, new methods or adjustments to existing techniques may be required for other peatland community types given the differences in species presence and hydrological conditions (i.e., best practices for bog restoration may not be applicable to fen community types) (Quinty et al., 2019).
745	• Peatlands	• Peatlands	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Design and implement a program to monitor for peatland condition in the vicinity of project activities. The program will include science-based thresholds or indicators of peatland condition based on research and established standards, like those presented in Minasny et. al, 2023, as well as mitigation and adaptive response plan to prevent long term damage or carbon release. Details regarding the thresholds and indicators as well as the number of monitoring locations and the length of the monitoring period will be determined in subsequent Project phases.
746	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Have Environmental Monitors and Indigenous Environmental Monitors on-site during construction to confirm that all mitigation measures are being implemented appropriately. Details regarding Environmental Monitors and their role during the project will be determined through the development of the Environmental Protection Plan.
747	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Develop and implement a Project-specific Environmental Protection Plan.

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748	• Peatlands	• Peatlands	• Detail Design / Pre-Construction •	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Perform clearing and construction activities in winter months where feasible, to minimize compaction of peat. A review of the project construction schedule will be completed during detail design to coordinate work based on environmental timing windows and timing restrictions.	• Perform clearing and construction activities in winter months where feasible, to minimize compaction of peat. A review of the project construction schedule will be completed during detail design to coordinate work based on environmental timing windows and timing restrictions.
749	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Upon completion of construction, sand and gravel pits, including temporary access roads leading to the pits will be rehabilitated (progressive and final rehabilitation) and surrendered in accordance with the Aggregate Resource Act, which will include backfilling, levelling, recompacting, and redistributing organic materials to encourage natural revegetation. Temporary access roads leading to temporary quarry areas will also be decommissioned. Temporary quarries not required for maintenance activities will be vegetated in accordance with the Rehabilitation Plan. Quarries maintained for operations will be blocked to discourage public use but facilitate access for ongoing road maintenance. The number of quarries required for maintenance will be determined during the detail design phase .
750	• Peatlands	• Peatlands	• Operations and Maintenance	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Avoid re-entry and disturbance of restored temporary access areas post-construction.
751	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Implement adaptive management measures if drainage patterns are determined to be significantly altered. Adaptive management measures will be determined through the development of the Environmental Protection Plan.
752	• Peatlands	• Peatlands	• Detail Design / Pre-Construction • Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Construct the Community Access Road through peatland communities using a “floating road” construction methodology to allow for groundwater movement below and through the road embankment. This approach will involve: ○ Completion of a detailed ground survey, characterizing the peat and local hydrology at a later stage of the project / detail design. ○ Site-specific identification of appropriate values for peat strength. ○ Use of a geogrid base to act as a separator and strengthener between the road subgrade fill materials and the peat. ○ Use of additional geogrid and geotextile materials in layers combined with road aggregate material above the embankment fill to form a mechanically stabilized layer. This layer will provide the required strength and stiffness for the road to perform during all seasons, including spring thaw. ○ Design the Floating Road Plan, profile and cross-section for each road section based on context-sensitive design standards, geometry and loading. ○ Provide transitions between “floating road” sections, excavated, and fill sections. ○ Schedule construction to allow for primary settlement of the peat without risk of shear failure. ○ Monitor the work through construction, measuring and recording lateral movement and settlements. Be prepared to adjust the design based on observation and monitoring.	• Construct the Community Access Road through peatland communities using a “floating road” construction methodology to allow for groundwater movement below and through the road embankment. This approach will involve: ○ Completion of a detailed ground survey, characterizing the peat and local hydrology at a later stage of the project / detail design. ○ Site-specific identification of appropriate values for peat strength. ○ Use of a geogrid base to act as a separator and strengthener between the road subgrade fill materials and the peat. ○ Use of additional geogrid and geotextile materials in layers combined with road aggregate material above the embankment fill to form a mechanically stabilized layer. This layer will provide the required strength and stiffness for the road to perform during all seasons, including spring thaw. ○ Design the Floating Road Plan, profile and cross-section for each road section based on context-sensitive design standards, geometry and loading. ○ Provide transitions between “floating road” sections, excavated, and fill sections. ○ Schedule construction to allow for primary settlement of the peat without risk of shear failure. ○ Monitor the work through construction, measuring and recording lateral movement and settlements. Be prepared to adjust the design based on observation and monitoring.

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753	• Peatlands	• Peatlands	• Detail Design / Pre-Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• During detail design, carefully consider placement of culverts in peatland environments with a particular emphasis on the installation of culverts in areas where the road runs perpendicular to the natural flow of groundwater. This can help to minimize the impacts on local carbon and methane emissions and increased enzyme activity noted above (Saraswati and Strack, 2019; Saraswati et al., 2019; Saraswati et al., 2023).	• Not applicable.
754	• Peatlands	• Peatlands	• Detail Design / Pre-Construction • Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Design and implement a pre-, during- and post-construction monitoring program that assesses surface and groundwater movement and allows for the maintenance of pre-construction conditions to the extent feasible (Section 9). This includes the creation of a monitoring program that involves geochemical testing on exposed bedrock and soils to assess the potential for acid rock drainage and / or metal leaching as it relates to methylmercury production in peatland communities present within the Construction Disturbance Area. The program will also monitor potential increases in methylmercury production related to changes in groundwater levels as a result of the construction of the Community Access Road.	• Design and implement a pre-, during- and post-construction monitoring program that assesses surface and groundwater movement and allows for the maintenance of pre-construction conditions to the extent feasible (Section 9). This includes the creation of a monitoring program that involves geochemical testing on exposed bedrock and soils to assess the potential for acid rock drainage and / or metal leaching as it relates to methylmercury production in peatland communities present within the Construction Disturbance Area. The program will also monitor potential increases in methylmercury production related to changes in groundwater levels as a result of the construction of the Community Access Road.
755	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• An Environmental Protection Plan will be developed, and will be implemented during construction to prevent, detect, control (i.e., remove), and monitor areas with invasive species. The plan will also include the following measures: ○ Thoroughly inspect and clean construction equipment and vehicles prior to bringing them to the work area and when moving between work areas within the Project. Cleaning shall be completed in accordance with the most up to date version of the Clean Equipment Protocol for Industry (Halloran et al., 2013). Documentation of the results of each inspection will be a requirement of the Environmental Protection Plan. Additional recommendations for the cleaning of equipment (e.g., the use of specific cleaning stations and their location) will be determined through the development of the Environmental Protection Plan. ○ Use reduced disturbance techniques to prevent topsoil removal and preserve adequate substrate to promote natural revegetation (e.g., use a low impact method to leave the surface vegetation root mat intact). ○ Contour disturbed areas to minimize soil and water erosion and encourage growth of native vegetation. ○ Limit off-road vehicle use by contractors during Construction. Inspections and maintenance activities will include cleaning of off-road vehicles before and after each use to prevent the spread of invasive species. Recommendations related to the use of off road vehicles will be determined at detail design and / or through the development of the Environmental Protection Plan. ○ Use seed mixes with appropriate native species for all seeding and restoration works. Seed mixes must be tested / certified to be free of invasive species. Native seed should be sourced from local populations whenever possible.

ID	Valued Component	Environmental Concern and Potential Effect	Project Phase	Concerned Agencies / Parties	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Detail Design	Mitigation, Protection, Monitoring, and Study Commitments to be Carried Forward to Construction / Operations
756	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Require that the road operator follow Ministry of Transportation Ontario Provincial Standard Specification 803 to avoid spreading invasive plant species. ○ Remove and manage invasive species using manual and mechanical means. Herbicides will not be used.
757	• Peatlands	• Peatlands	• Operations and Maintenance	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Include the following measures as part of the Environmental Protection Plan to prevent, detect, control (i.e., remove), and monitor areas with invasive species: ○ Limit off-road vehicle use by contractors during Operation and Maintenance. Inspections and maintenance activities will include cleaning of off-road vehicles before and after each use to prevent the spread of invasive species. ○ Require that the road operator follows Ministry of Transportation Ontario Provincial Standard Specification 803 to avoid spreading invasive plant species ○ Herbicides use is not planned. Vegetation will be largely removed by mechanical means, except within 10 m of a watercourse or wetland. In these areas, vegetation will be removed manually, using chain saws and other hand-held equipment, while leaving the undergrowth and duff layer undisturbed to prevent erosion. ○ Design and implement a post-construction invasive species monitoring program to detect invasive species presence and control (i.e., remove) new introductions. Details of the post-construction invasive species monitoring program will be included in the Environmental Protection Plan.
758	• Peatlands	• Peatlands	• Detail Design / Pre-Construction • Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Adjust the alignment or clear off centre within the right-of-way to minimize peatland fragmentation and the creation of new forested swamp edges, where feasible. These details will be refined during detail design.	• Adjust the alignment or clear off centre within the right-of-way to minimize peatland fragmentation and the creation of new forested swamp edges, where feasible. These details will be refined during detail design.
759	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Construct temporary laydown areas and temporary construction camps on existing disturbed areas, wherever possible. The availability of existing disturbed areas for the construction of temporary laydown areas and temporary construction camps will be determined at detail design.
760	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Avoid grubbing along newly created forested swamp edges to promote natural regeneration which will quickly “seal” the new forested swamp edge.
761	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Use reduced disturbance techniques during construction to prevent topsoil removal, preserve adequate substrate to promote natural revegetation (e.g., use a low impact method to leave the surface vegetation root mat intact). Recommendations for reduced disturbance techniques will be described in detail design.; and

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762	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Use progressive restoration on-site once temporary work areas (e.g., staging areas) are no longer needed. Progressive restoration techniques will be provided in the Environmental Protection Plan.
763	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Develop and implement a Project-specific Erosion and Sediment Control Plan. Erosion and sediment control measures will be developed and implemented in accordance with Ontario Provincial Standard Specifications (Ontario Provincial Standard Specifications OPSS.PROV.804 and OPSS.MUNI.805). Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of the Environment, Conservation and Parks and Ontario Ministry of Natural Resources, will be followed during Construction. Installed erosion and sediment control measures are not expected to affect the water movement to peatlands.
764	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Regularly inspect and maintain Erosion and Sediment Control structures (e.g., sediment fences, rip rap, or other sediment control structures) in accordance with Ontario Provincial Standard Specifications OPSS.PROV 804 during all phases of the Project and modify measures as necessary. If control measures are not functioning properly, no further work will occur until the problem is resolved.
765	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Stabilize disturbed areas through revegetation with native plant species or other appropriate means (e.g., erosion control blankets) following completion of the works.
766	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Reschedule work or reduce traffic in areas where soils are considered to be excessively wet or where there is a heavy rainfall risk.
767	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Earthworks should be avoided during periods of heavy rainfall, particularly in areas adjacent to watercourses and wetlands. Areas where a reduction in traffic are required will be determined during the detail design phase.
768	• Peatlands	• Peatlands	• Operations and Maintenance	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• During operations, mitigation measures will include a posting and enforcement of a speed limit on the highway, which should reduce potential for chemical or hazardous material spills by reducing vehicle collision risk.
769	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Limit the Project footprint, vegetation clearing and access road requirements to the extent feasible (e.g., share / coordinate access, concentrate temporary activities spatially, leave habitat outside the scoped Construction Disturbance Area, selective clearing, and use existing access roads when available). Reducing cleared areas and the number of access roads through coordination, can reduce the number of cleared areas and access roads that will be present during and following construction that may provide access to previously inaccessible lands;

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770	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Use progressive restoration on-site once temporary work areas (e.g., staging areas) are no longer needed and prevent ongoing use of inactive areas through combined use of physical control measures (rollback, removal of creek crossings, recontouring to surrounding topography, revegetation / reforesting and / or barriers at junctions with active access);Develop a policy for Project personnel while on shift or at temporary construction camps regarding any plant or timber harvesting activities; and
771	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Develop a wildfire prevention plan for the construction works that outlines protocols for hot works or any other activity with the potential to trigger a fire, required fire suppression equipment, and a response plan if a fire is triggered.
772	• Peatlands	• Peatlands	• Operations and Maintenance	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Install access controls (e.g., gates and boulders) to control public vehicle travel on some temporary access routes and trails.
773	• Peatlands	• Peatlands	• Operations and Maintenance	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Install signage at regular intervals stating that any dumping is prohibited.
774	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• To limit the disturbance and excavation of peat, a “floating road” construction methodology will be utilized where the proposed Community Access Road will be constructed on top of the peat.

775	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources
				• Environment and Climate Change Canada
				• Fisheries and Oceans Canada
				• Ministry of Transportation
					• Not applicable.	• Limit vegetation clearing to within the 100 m right-of-way and reduce to less than this width whenever and wherever possible.
						  ○ Minimize clearing widths in peatland ecosystems given the difficulty of restoration efforts in these systems.
						  ○ Adjust the alignment or clear off centre within the right-of-way where warranted, to minimize effects on peatland ecosystems. These details will be refined during detail design, prior to construction.
						  ○ Limit clearing of riparian vegetation (i.e., within 30 m of waterbodies) to the extent possible and to the requirement of the access road and alignment clearing width only.
						  ○ Locate temporary access roads, staging areas, camps, and debris and / or timber stockpiles in less sensitive ecosystems (e.g., upland ecosystems), where possible.
						  ○ Avoid peatland communities for temporary features wherever possible.

776	• Peatlands	• Peatlands	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Decommission and rehabilitate temporary access roads, staging areas, camps, and debris and / or timber stockpiles following construction. Details related to peatland rehabilitation will be determined at detail design and/or when the Vegetation Restoration Plan is developed.	• Decommission and rehabilitate temporary access roads, staging areas, camps, and debris and / or timber stockpiles following construction. Details related to peatland rehabilitation will be determined at detail design and/or when the Vegetation Restoration Plan is developed.

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777	• Peatlands	• Peatlands	• Detail Design / Pre-Construction	• Ministry of Natural Resources
				• Environment and Climate Change Canada
				• Fisheries and Oceans Canada
				• Ministry of Transportation
					• During detail design, the following tasks will be undertaken to minimize effects on peatland ecosystems:
					  ○ Refine peatland community mapping and field-verify the locations of sensitive or difficult to restore communities (e.g., fens and bogs) to inform the micro-siting of temporary access roads, staging areas, camps, debris and / or timber stockpiles, as well as the centreline of the Community Access Road within the 100 m cleared right-of- way; and
					  ○ Complete an assessment of pit / quarry locations to identify potential effects due to changes in hydrogeology / hydrology on peatland communities within the radius of influence for dewatering programs.
					• Airborne Electromagnetic (AEM) Surveying to produce continuous peat depth mapping which is critical for construction planning such as identifying saturated or sensitive areas that may require specialized engineering solutions.
						Not applicable.

778	• Peatlands	• Peatlands	• Detail Design / Pre-Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Refine peatland community mapping and field-verify the locations of sensitive or difficult to restore communities (e.g., fens and bogs) to inform the micro-siting of temporary access roads, staging areas, camps, debris and / or timber stockpiles, as well as the centreline of the Community Access Road within the 100 m cleared right-of way; and	• Not applicable.
779	• Peatlands	• Peatlands	• Detail Design / Pre-Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Complete an assessment of pit / quarry locations to identify potential effects due to changes in hydrogeology / hydrology on peatland communities within the radius of influence for dewatering programs.	• Not applicable.
780	• Peatlands	• Peatlands	• Detail Design / Pre-Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Airborne Electromagnetic (AEM) Surveying to produce continuous peat depth mapping which is critical for construction planning such as identifying saturated or sensitive areas that may require specialized engineering solutions.	• Not applicable.
781	• Peatlands	• Peatlands	• Detail Design / Pre-Construction • Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• A peatlands groundwater monitoring and water budget study will be developed and implemented during detail design to determine groundwater flow and influence on peatland ecosystems. This will further inform the assessment of the potential Project impacts on peatland ecosystems and the associated mitigation recommendations that will be confirmed and refined at detail design.	• A peatlands groundwater monitoring and water budget study will be developed and implemented during detail design to determine groundwater flow and influence on peatland ecosystems. This will further inform the assessment of the potential Project impacts on peatland ecosystems and the associated mitigation recommendations that will be confirmed and refined at detail design.
782	• Peatlands	• Peatlands	• Detail Design / Pre-Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• A program designed to monitor groundwater on both sides of the Community Access Road and in areas of dewatering programs to establish pre-construction groundwater levels, as well as monitor groundwater levels during and post construction. This program will include pre-construction, during-construction and post-construction components.	• Not applicable.
783	• Peatlands	• Peatlands	• Detail Design / Pre-Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Locations of groundwater monitoring instruments (e.g., piezometers) will be established approximately every 1,000 m along sections of the road that will be constructed with the “floating road” construction methodology. Details of the monitoring plan including the final placement of piezometers and the duration of monitoring will be developed and refined during detail design.	• Not applicable.

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784	• Peatlands	• Peatlands	• Detail Design / Pre-Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Monitoring locations will be established both up- and down-gradient of the future road to capture pre, during and post construction groundwater levels and movement patterns. Monitoring locations should be located away from equalization culverts.	• Not applicable.
785	• Peatlands	• Peatlands	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Monitoring will occur three times annually (spring, summer, fall).	• Monitoring will occur three times annually (spring, summer, fall).
786	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• An invasive species monitoring program designed to prevent, detect, and control (i.e., remove) invasive species and monitor areas where invasive species were removed;
787	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A program designed to monitor groundwater on both sides of the Community Access Road to determine whether water flow beneath the road is being maintained throughout construction will be carried out where the “floating road” construction methodology is used through peatland communities. Monitoring will occur at the same locations established during pre-construction and will occur three times annually (spring, summer, fall) throughout the duration of construction
788	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A program to monitor peatland community response to any potential changes in hydrogeology throughout construction (e.g., in the vicinity of dewatering activities and either side of “floating road” segments);
789	• Peatlands	• Peatlands	• Construction	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A program to monitor whether erosion and sedimentation control measures are functioning as intended and to direct repair and adaptive management measures, where required.
790	• Peatlands	• Peatlands	• Detail Design / Pre-Construction • Operations and Maintenance	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• A program designed to monitor and manage any rehabilitated and restored peatland communities as well as any wetland offset areas. Details regarding the number of monitoring locations, level of effort and length of the monitoring period will be determined during detail design, if any peatland communities are restored or created;	• A program designed to monitor and manage any rehabilitated and restored peatland communities as well as any wetland offset areas. Details regarding the number of monitoring locations, level of effort and length of the monitoring period will be determined during detail design, if any peatland communities are restored or created;
791	• Peatlands	• Peatlands	• Detail Design / Pre-Construction • Operations and Maintenance	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• A program designed to monitor installed groundwater wells to confirm water flow beneath the road is being maintained. Monitoring will occur at the same locations established during pre-construction and will occur three times annually (spring, summer, fall) for a length of time to be determined during detail design;	• A program designed to monitor installed groundwater wells to confirm water flow beneath the road is being maintained. Monitoring will occur at the same locations established during pre-construction and will occur three times annually (spring, summer, fall) for a length of time to be determined during detail design;
792	• Peatlands	• Peatlands	• Detail Design / Pre-Construction • Operations and Maintenance	• Ministry of Natural Resources • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• A program designed to monitor peatland community responses to any potential changes in hydrogeology. Details regarding the number of monitoring locations and the length of the monitoring period will be determined in subsequent Project phases;	• A program designed to monitor peatland community responses to any potential changes in hydrogeology. Details regarding the number of monitoring locations and the length of the monitoring period will be determined in subsequent Project phases;

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793	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Permit or register water takings of more than 50,000 L/day with the Ministry of the Environment, Conservation and Parks Permit to Take Water or Environmental Activity and Sector Registry programs.
794	• Groundwater	• Groundwater	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• - Design construction dewatering to minimize the amount of groundwater that has to be extracted.	• Design construction dewatering to minimize the amount of groundwater that has to be extracted.
795	• Groundwater	• Groundwater	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Groundwater removed from construction areas should be discharged locally and allowed to infiltrate the ground, subject to Environmental Compliance Approval by the Ministry of the Environment, Conservation and Parks.
796	• Groundwater	• Groundwater	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• - Conduct site-specific hydrogeological studies for any groundwater sourced water supplies used for Project construction.	• Not applicable.
797	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Where possible, treated wastewater from groundwater sources should be returned to the local environment and allowed to infiltrate the ground to reduce the net taking of groundwater, subject to Environmental Compliance Approval by the Ministry of the Environment, Conservation and Parks.
798	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Efficient water processes, fixtures and systems to be used where practical to reduce water taking requirements.
799	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Groundwater monitoring to be conducted where required by permits or site-specific hydrogeological studies.
800	• Groundwater	• Groundwater	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• - Design Project drainage to allow for local infiltration of water.	• Not applicable.

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801	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Follow drainage best management practices such as those outlines in Environmental Guide for Erosion and Sediment Control During Construction of Highway Projects (Ministry of Transportation, 2015) and Environmental Guidelines for Access Roads and Water Crossings (Ministry of Natural Resources, 1990).
802	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Avoid infiltration of contaminated water or infiltration of water at locations that could be negatively impacted by raised groundwater levels.
803	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Restore temporary construction infrastructure and sites to match pre-disturbance ground cover, topography, and vegetation conditions.
804	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• All aggregate pits and quarries will be permitted by the Ministry of Natural Resources under the Ontario Aggregate Resources Act (Government of Ontario, 1990a) including technical studies to assess any extraction proposed below the water table.
805	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Any aggregate pit or quarry dewatering in excess of 50,000 L/day will be permitted by a Permit to Take Water from the Ministry of the Environment, Conservation and Parks. A technical water taking assessment of potential effects and mitigation measures will be required for the permit application.
806	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Industry best management practices for water taking from pits and quarries should be employed such as recording water takings volumes and times, discharging water back to the environment in a way that allows for replenishment of groundwater, on-site water re-use, and monitoring of discharge water quality. Discharge of water will be subject to Environmental Compliance Approval by the Ministry of the Environment, Conservation and Parks.
807	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Groundwater monitoring programs to be established in accordance with permit requirements and Project monitoring plans.
808	• Groundwater	• Groundwater	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• - The Community Access Road foundation design and construction should allow for groundwater flow through the peat to be maintained near to natural rates.	• Not applicable.

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809	• Groundwater	• Groundwater	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Road design should include equalization culverts and permeable base materials in peat land areas.
810	• Groundwater	• Groundwater	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• A groundwater monitoring program should be implemented in areas where the road is constructed on top of peatlands to identify if groundwater flow beneath the road is significantly restricted.
811	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• A Spill Prevention and Emergency Response Plan should be developed and implemented for the Project.
812	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Project staff will be trained on the Spill Prevention and Emergency Response Plan.
813	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Machinery and equipment will be regularly inspected and have appropriate spill containment supplies available at all worksites.
814	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Fuelling should be limited to designated areas where secondary containment and adequate spill containment measures are available.
815	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Fuels and hazardous materials should be stored and handled according to applicable regulations and best management practices such as the Technical Standards and Safety Act (Government of Ontario, 2000) and the Transportation of Dangerous Goods Act (Government of Canada, 1992).
816	• Groundwater	• Groundwater	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• The Community Access Road will be maintained in accordance with provincial standards to reduce the risk of accidents and associated spills.

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817	• Groundwater	• Groundwater	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• A Waste Management Plan will be developed for the Project and include details for how wastes should be stored, handled, and disposed of.
818	• Groundwater	• Groundwater	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• All Project staff will be trained in the Waste Management Plan.
819	• Groundwater	• Groundwater	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Project wastes should be stored in designated containment areas according to applicable legislation (e.g., Ontario Regulation 347) until removed for final disposal.
820	• Groundwater	• Groundwater	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Any wastewater generated by the Project should be disposed of at a licensed disposal site or treated to meet water quality guidelines such as the Ministry of the Environment, Conservation and Parks Provincial Water Quality Objectives before release.
821	• Groundwater	• Groundwater	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Any releases of wastewater should be permitted by an Environmental Compliance Approval from the Ministry of the Environment, Conservation and Parks.
822	• Groundwater	• Groundwater	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Project blasting should be carried out according to applicable regulations such as the Explosives Act (Government of Canada, 1985) and the Transportation of Dangerous Goods Act (Government of Canada, 1992).
823	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• A Blasting and Communication Management Plan will be developed for the Project and include guidelines for explosives handling, storage, and loading to minimize explosives exposure to the environment and minimize explosives residue after blasting.
824	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Regular monitoring of water quality in quarry sumps and downstream of blasting areas should be conducted and compared to action levels of contaminants of concern set based on regulatory guidelines.

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825	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Post-blast inspections will be regularly carried out to identify issues with blast design and detonations.
826	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• A geochemical monitoring program will be developed to test bedrock and soils in areas where they will be exposed by excavation.
827	• Groundwater	• Groundwater	• Construction • Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Any materials identified as at risk for acid generation or metal leaching will not be excavated or will be subject to site-specific mitigation and management plans to contain and control potential acid rock drainage if excavation is unavoidable.
828	• Groundwater	• Groundwater	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Road maintenance should be carried out according to best management practices such as those outlined by Best Practices for the Use and Storage of Chloride-Based Dust Suppressant (Environment Canada, 2007)) to reduce the use of chemicals for dust control and minimize runoff of chemicals to the environment.
829	• Groundwater	• Groundwater	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Alternative chemicals or methods of dust control that pose less risk of runoff and infiltration should be considered for use.
830	• Groundwater	• Groundwater	• Detail Design / Pre-Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• A groundwater monitoring program to establish baseline groundwater levels and quality. • Groundwater levels and quality will be monitored as follows: ○ Groundwater monitoring stations will be established at areas where large groundwater takings are expected or where potential for impacts on groundwater quality exists, such as pits, quarries, temporary construction camps, laydown yards, road constructed over peatland, and large structure foundations or road cuts / fills; ○ The groundwater monitoring stations will be located between the anticipated work area and nearby receptors such as wetlands, waterbodies, and seeps/springs. Multiple groundwater monitoring stations may be required at larger sites to assess effects on various or large receptors, and the groundwater monitors should provide depth coverage to at least the expected water taking depth; ○ Groundwater levels will be measured at the monitoring stations at least monthly for three months prior to beginning groundwater taking. For pits and quarries which will be extracted below the water table under an Ontario Aggregate Resources Act permit, the groundwater	Not applicable.

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					monitoring program will be designed in accordance with the Aggregate Resources of Ontario: Technical Reports and Information Standards (Government of Ontario, 2023) in addition to the Project monitoring program; ○ Groundwater quality will be sampled at the monitoring stations at least monthly for three months prior to beginning construction work. The groundwater quality samples should be analyzed for general water quality parameters at minimum (i.e., pH, temperature, conductivity, hardness, alkalinity, chloride, nitrate, nitrite, sulphate, phosphate, ammonia, total dissolved solids, dissolved organic carbon, calcium, copper, iron, magnesium, manganese, potassium, sodium, and zinc). Sampling for metals parameters will include both dissolved and total concentrations to assess the influence of suspended solids on the concentrations. Additional parameters of concern will also be sampled for where identified, for example sampling for volatile organic compounds near areas where fuel or chemical storage is located; ○ In addition to the above recommended pre-construction monitoring, at sites where construction activities will require permitting for dewatering and water management such as Permit to Take Water, Environmental Activity and Sector Registry, and / or Environmental Compliance Approvals, the groundwater monitoring will be enhanced on a site-by-site basis to support the required permitting studies. • A geochemical testing and monitoring program to assess the potential for acid rock drainage from any soils, or bedrock, which will be exposed during the Construction Phase. As part of this monitoring program: ○ Acid base accounting analysis will be carried out and materials assessed for acid rock drainage potential based on the classification as outlined in MEND (2009).	
831	• Groundwater	• Groundwater	• Construction	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• A groundwater monitoring program to measure groundwater levels and quality and compare them to existing conditions. Groundwater levels and quality will be monitored as follows: ○ Groundwater monitoring stations established for the pre-construction monitoring programs will be maintained and monitored through construction; ○ Groundwater levels will be measured at the monitoring stations at least weekly during Construction Phase activities. During active groundwater takings, the nearby groundwater levels will be measured at least daily; ○ Groundwater quality will be sampled at the monitoring stations at least monthly for the same parameters as the pre-construction monitoring; and ○ In addition to the above recommended construction monitoring, at sites where construction activities require permits for dewatering and water management such as Permit to Take Water, Environmental Activity and Sector Registry, and / or Environmental Compliance Approvals, the groundwater monitoring will be enhanced and maintained on a site-by-site basis to support any permit requirements.

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832	• Groundwater	• Groundwater	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• Where no impacts have been identified, the construction monitoring programs noted above can be ended at sites that have been fully decommissioned in accordance with the Project plans. Where impacts are expected to develop over longer time periods, such as settlement of roads built over peatlands, monitoring should continue long enough to confirm that conditions have stabilized. Any groundwater monitoring wells no longer used for monitoring should be decommissioned in accordance with Ontario Regulation 903 Wells;
833	• Groundwater	• Groundwater	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• At sites where impacts on groundwater levels or quality have been identified, the groundwater monitoring programs should continue, as per the construction monitoring program, until a return to baseline equivalent conditions is observed or a site-specific remediation monitoring plan is implemented as determined by the qualified person retained for environmental monitoring of the Project; and
834	• Groundwater	• Groundwater	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks • Ministry of Natural Resources • Ontario Parks • Ministry of Transportation • Transportation Canada	• Not applicable.	• For sites that will continue to be used during Project operations the groundwater monitoring programs detailed above should continue along with any activities that may affect groundwater. For example, if a pit or quarry site is used intermittently, each use of the pit or quarry should be considered like a construction period and the monitoring guidelines followed as above.
1530	• Fish and Fish Habitat	• Fish and Fish Habitat	• Detail Design / Pre-Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• If new waterbodies are identified prior to construction, an Aquatics Specialist will be contracted to assess the waterbody. Depending on the nature of the waterbody, recommendations for construction methods, appropriate mitigation and enhancement measures, and permitting requirements will be made by the Aquatics Specialist and, if necessary, local First Nation communities and appropriate regulatory agencies including Fisheries and Oceans Canada and the Ministry of Natural Resources, will be engaged. This will allow for the appropriate mitigation and enhancement measures to be implemented during construction at each waterbody crossing at a site-specific level, which will reduce or avoid potential effects on habitat quantity and quality.	• Not applicable.
1531	• Fish and Fish Habitat	• Fish and Fish Habitat	• Operations and Maintenance	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Prepare and implement a Dust / Air Quality Management Plan. • Implement dust control practices (e.g., wetting with water and implementation of speed limits), as required.
1532	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Burn slash piles subject to agreements with Indigenous communities, landowners, and to permits and approvals by appropriate regulatory agencies.
1533	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Clear and revegetate the riparian zone, including above and below the high-water mark, following Fisheries and Oceans Canada's Measures to Protect Fish and Fish Habitat (2025a), Ontario Provincial Standard Specification General Specification for Environmental Protection for Construction in and Around Waterbodies and on Waterbody Banks (2021b), and the Ministry of Natural Resources and Forestry's Environmental Guidelines for Access Roads and Water Crossings (1990), and Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales (2010a) and its associated Background Rationale document (2010b).

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1534	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Complete work as quickly as possible to shorten the duration of disturbance.
1535	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Construct or install waterbody crossing structures in a manner that protects the banks from erosion, maintains downstream flows in the waterbody, and follows permits or authorizations issued for the Project from Fisheries and Oceans Canada and the Ministry of Natural Resources.
1536	• Fish and Fish Habitat	• Fish and Fish Habitat	• Operations and Maintenance	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Culverts and bridges will be regularly inspected and maintained to prevent blockages from forming and causing ponding or backwater effects. Where culverts and bridges are installed at fish-bearing waterbodies, Fisheries and Oceans Canada's Codes of Practice will be followed for debris removal activities (i.e., gradual removal such that flooding downstream, extreme flows downstream, release of suspended sediment, and fish stranding can be avoided) (Fisheries and Oceans Canada, 2025b). Inspection frequency will be adjusted where appropriate to take into account changing climate conditions over time; and
1537	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Decommission and reclaim temporary pits and quarries and the temporary infrastructure for construction including access roads, staging areas, camps, and debris and / or timber stockpiles at the end of construction. Pits and quarries will be rehabilitated (progressive and final rehabilitation) and surrendered in accordance with the Aggregate Resources Act.
1538	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Decommission and rehabilitate temporary access roads, staging areas, camps, and debris and / or timber stockpiles following construction, where not needed for Operation and Maintenance activities.
1539	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Design permanent waterbody crossing structures to accommodate climate change considerations.
1540	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• During detail design, complete site-specific fish and fish habitat and surface water surveys to support engineering and Fisheries and Oceans Canada and the Ministry of Natural Resources permitting at waterbody crossings where work below the high-water mark is proposed. Submit designs of waterbody crossings as required for permit applications to Fisheries and Oceans Canada and the Ministry of Natural Resources. Surveys may also be required at select sites where work above the high-water mark is proposed based on Fisheries and Oceans Canada and the Ministry of Natural Resources permitting requirements.
1541	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Environmental Monitors and Indigenous Environmental Monitors will be on site during construction to confirm that all waterbodies crossed by the Community Access Road right-of-way and access roads have been identified and documented in the waterbody crossing list. The Environmental Monitors will monitor the installation, use, and removal of waterbody crossing structures. The Environmental Monitors will confirm that the appropriate waterbody crossing structure is being used and that the required Fisheries and Oceans Canada and the Ministry of Natural Resources approvals and permits are in place;

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1542	• Fish and Fish Habitat	• Fish and Fish Habitat	• Detail Design / Pre-Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Fish and fish habitat and surface water surveys using methods similar to those outlined in Section 4.3 will be conducted before construction at any waterbody that has not been assessed and work is proposed below the high-water mark to meet permitting requirements (i.e., for the Fisheries and Oceans Canada Request for Review under the Fisheries Act and for permit applications to the Ministry of Natural Resources under the Lakes and Rivers Improvement Act); and	• Not applicable.
1543	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Follow best management practices and environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Fisheries and Oceans Canada (a Request for Review will be prepared for Fisheries and Oceans Canada. Fisheries and Oceans Canada will determine whether to provide a Letter of Advice or if a Fisheries Act Authorization is required) and the Ministry of Natural Resources (permits will be required from the Ministry of Natural Resources under the Lakes and Rivers Improvement Act).
1544	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• - Follow the Construction mitigation and enhancement measures outlined in Changes to fish habitat quantity and quality through physical alterations of waterbodies and Changes to fish habitat quantity and quality through changes to riparian vegetation.
1545	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• - Follow the Construction mitigation and enhancement measures outlined in Changes to fish habitat quantity and quality through physical alterations of waterbodies and Changes in habitat quality from release of sediment land disturbance during road construction at waterbody crossings.
1546	• Fish and Fish Habitat	• Fish and Fish Habitat	• Operations and Maintenance	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Follow the Operation and Maintenance mitigation and enhancement measures outlined in Changes to fish habitat quantity and quality through physical alterations of waterbodies.
1547	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• If new waterbodies are identified during construction, the waterbody will be clearly flagged and activity will be suspended within 30 m of the location until an Aquatic Specialist has assessed the waterbody and determined a suitable course of action, which may include contacting Fisheries and Oceans Canada and the Ministry of Natural Resources;
1548	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Limit the Project footprint to the extent feasible.
1549	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction • Operations and Maintenance	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Meet Canada's Transportation of Dangerous Goods Act, 1992 (Government of Canada, 1992) and Ontario Technical Standards and Safety Act, 2000 (Government of Ontario, 2000) and for the transport, storage, and handling of fuels required for maintenance.
1550	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Prepare and implement a Spill Prevention and Emergency Response Plan that describes specific measures that would be implemented if a spill occurred.
1551	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Use existing access roads where possible.

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1552	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Use existing waterbody crossing structures where possible. Minimize the number of waterbody crossings required for the Project.
1553	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• A Licence to Collect Fish for Scientific Purposes from the Ministry of Natural Resources will be obtained and Aquatics Specialists will rescue and relocate fish within the isolated workspace prior to construction in the isolated workspace;
1554	• Fish and Fish Habitat	• Fish and Fish Habitat	• Operations and Maintenance	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• A program will be conducted to verify that erosion and sediment control measures have been successful (e.g., bank restoration and revegetation), and that the stability of each waterbody crossing is maintained (i.e., the channel has not washed out). The post-construction monitoring will occur within one full growing season after the completion of construction, but timing may be extended if needed. The integrity of the permanent crossing structures will be inspected regularly (i.e., annually in spring). Any changes to the morphology of the waterbody channel affecting fish habitat quality or quantity will be identified and addressed, as needed.
1555	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Appropriate erosion and sedimentation control measures will be installed, monitored, and managed to minimize or avoid sediment mobilization from the disturbed area to drainages or waterbodies. Adequate and appropriate erosion and sedimentation control materials will be on site and available prior to commencement of construction;
1556	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Avoid bank grading to accommodate temporary bridges where possible. Restrictions on grading may be required as part of waterbody crossing permits from Fisheries and Oceans Canada and the Ministry of Natural Resources.
1557	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• - Avoid constructing in sensitive habitats (e.g., spawning areas, groundwater upwellings) where feasible.
1558	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Avoid construction during a fish and fish habitat restricted activity timing window, where feasible. Work may not be conducted during the proposed restricted activity timing window unless approval is obtained from the Ministry of Natural Resources and Fisheries and Oceans Canada. Proposed restricted activity timing windows were assigned to avoid work during sensitive life history periods or life stages for all fish that may be present in each waterbody, including movements to spawning areas, spawning and egg incubation, or eggs and newly hatched fry. The restricted activity timing windows for each waterbody crossing will be finalized by the Ministry of Natural Resources during permitting.
1559	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Complete blasting near fish-bearing waterbodies outside the proposed restricted activity timing window for all blasting operations.
1560	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Complete instream construction in isolation of flowing water (i.e., use isolation methods for the installation and removal of culverts where surface water exists at the time of construction).
1561	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Consider the restricted activity timing windows for waterbodies for the timing of clearing riparian.

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1562	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Construct or install waterbody crossings in a manner that protects the banks from erosion, maintains downstream flows in the waterbody, and follows permits or authorizations issued for the Project from Fisheries and Oceans Canada and the Ministry of Natural Resources.
1563	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Construct waterbody crossings in a manner that maintains downstream flows and fish passage and follows conditions of permits or authorizations issued for the Project by Fisheries and Oceans Canada and the Ministry of Natural Resources.
1564	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Construct, operate, remove, decommission, and rehabilitate all waterbody crossing structures, if appropriate, following best management practices and environmental approval conditions, including the Ontario Provincial Standard Specification General Specification for Environmental Protection for Construction in and Around Waterbodies and on Waterbody Banks (2021b), Ministry of Natural Resources and Forestry's Environmental Guidelines for Access Roads and Water Crossings (1990) and Fisheries and Oceans Canada's Measures to Protect Fish and Fish Habitat (2025a) and Standards and Codes of Practice (2025b,c).
1565	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction • Operations and Maintenance	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Develop and follow a Sediment and Erosion Control Plan in accordance with Ontario Provincial Standard Specifications Construction Specification for Temporary Erosion Control (2021a) and Construction Specification for Temporary Sediment Control (2020).
1566	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Develop and maintain surface water management and erosion control infrastructure to minimize potential for changes to infiltration rates.
1567	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• For blasting operations, follow the overpressure and vibration guidelines outlined in the Ontario Provincial Standard Specification General Specifications for the Use of Explosives (2014) and Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters (Wright and Hopky, 1998): ○ Overpressure guideline—Explosives are not to be detonated in or near fish habitat that produces, or is likely to produce, an instantaneous water pressure change (i.e., overpressure) greater than 100 kPa where fish are present. The overpressure guideline applies year-round in any fish-bearing waterbody near the blast. ○ Vibration guideline—Explosives are not to be detonated that produce, or are likely to produce, a peak particle velocity greater than 13 mm/s in a spawning bed during the period of egg incubation. The vibration guideline applies during the restricted activity timing window in the waterbody near the blast.
1568	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• For isolations / diversions, maintain 100% downstream flow.

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1569	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• For permanent and temporary waterbody crossing structures, the proposed restricted activity timing window will be applicable if: ○ Any work is completed below the high-water mark (e.g., installation or removal of fill or culverts, bridge supports below the high-water mark, one-time ford). ○ The waterbody is frozen and an ice bridge / snow fill is constructed. ○ Beaver dam removals are required.
1570	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• For permanent and temporary waterbody crossing structures, the proposed restricted activity timing window will not be applicable: ○ If all work is completed above the high-water mark (e.g., installation or removal of a clear span bridge with no fill or supports below the high-water mark). ○ If work is completed below the high-water mark and approval is obtained from Ministry of Natural Resources and Fisheries and Oceans Canada prior to construction. ○ When using the existing and installed waterbody crossing structures, where no modifications are required.
1571	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Fording of a waterbody is not permitted, unless approved by the Ministry of Natural Resources and Fisheries and Oceans Canada. As per Fisheries and Ocean Canada's Code of Practice (2025b), limit fording to a onetime event (over and back) and use only if an existing crossing at another location is not available or practical to use. If repeated crossings of the waterbody are required, a crossing structure will be installed. Permits are expected to be required from Ministry of Natural Resources for any use of a ford.
1572	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Have equipment for containing spills on site. Spill response kits will be provided in fuel and hazardous materials storage and handling facilities at temporary construction camps and temporary laydown areas, in on-site work areas, and / or in vehicles and equipment, and personnel will be trained in spill response
1573	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction • Operations and Maintenance	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Have machinery and equipment arrive on site in a clean condition and inspect and maintain routinely to avoid fluid leaks.
1574	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction • Operations and Maintenance	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Herbicide use is not planned. Vegetation will be largely removed by mechanical means, except within 10 m of a watercourse or wetland. In these areas, vegetation will be removed manually, using chain saws and other hand-held equipment, while leaving the undergrowth and duff layer undisturbed to prevent erosion).
1575	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• If new waterbodies are identified prior to construction, contract an Aquatics Specialist to assess the waterbody. Depending on the nature of the waterbody, recommendations for construction methods, appropriate mitigation and enhancement measures, and permitting requirements will be made by the Aquatics Specialist and, if necessary, local First Nation communities and appropriate regulatory agencies including the Ministry of Natural Resources and Fisheries and Oceans Canada will be engaged. This will allow for the appropriate mitigation and enhancement measures to be implemented during construction at each waterbody crossing at a site-specific level, which will reduce or

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						avoid potential effects on habitat quantity and quality. If new waterbodies are identified during construction, clearly flag the waterbody and suspend activity within 30 m of the location until an Aquatic Specialist has assessed the waterbody and determined a suitable course of action, which may include contacting Fisheries and Oceans Canada and the Ministry of Natural Resources.
1576	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Implement best management practices and regulations outlined by the Ministry of Natural Resources to reduce the spread of invasive species.
1577	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Implement the mitigation and enhancement measures as described in the surface water quality assessment (WSP, 2026a).
1578	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Implement the relevant mitigation and enhancement measures as described in the surface water quality assessment (WSP, 2026a).
1579	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction • Operations and Maintenance	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Install, monitor, and manage appropriate erosion and sedimentation control measures to prevent sediment from reaching the waterbody prior to and during construction, and maintenance activities and in accordance with Ontario Provincial Standard Specifications Construction Specification for Temporary Erosion Control (2021a) and Construction Specification for Temporary Sediment Control (2020).

1580	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada
				• Ministry of Natural Resources
					• Not applicable.	• Instream Construction:
						  ○ For isolations / diversions, appropriately screen water intakes or pumps to prevent entrainment or impingement of fish (Fisheries and Oceans Canada, 2025a) and follow measures for design and installation of intake end of pipe fish screens to protect fish (Fisheries and Oceans Canada, 2025a).
						  ○ Obtain a Licence to Collect Fish for Scientific Purposes from the Ministry of Natural Resources and have Aquatics Specialists rescue and relocate fish within the isolated workspace prior to construction in the isolated workspace.

1581	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Locate temporary access roads, staging areas, camps, and debris and / or timber stockpiles a minimum of 30 m away from the ordinary high-water mark of a waterbody, where possible.
1582	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction • Operations and Maintenance	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Maintain a 30 m riparian buffer around waterbodies, where feasible.
1583	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Maintain buffer zones of 30 m around waterbodies and limit clearing of riparian vegetation to the extent practical and to the requirement of the access road and alignment clearing width only.
1584	• Fish and Fish Habitat	• Fish and Fish Habitat	• Operations and Maintenance	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Operate waterbody crossing structures in consideration of best management practices and environmental approval conditions, including the Fisheries and Oceans Canada's Measures to Protect Fish and Fish Habitat (2025a) and Ministry of Natural Resources and Forestry's Environmental Guidelines for Access Roads and Water Crossings (1990).

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1585	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Postpone instream construction if excessive flows or flood conditions are present or anticipated. Resume activities when water levels have subsided or equipment / techniques suitable for conditions are deployed.
1586	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Prepare and implement a Blasting and Communication Management Plan that is in accordance with Ontario Provincial Standard Specification General Specifications for the Use of Explosives (2014) and describes specific measures that would be implemented if blasting is required.
1587	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Recontour disturbed areas to restore drainage patterns and the approximate preconstruction profile.
1588	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Register aboveground storage tanks under and in compliance with applicable federal and provincial legislation.

1589	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada
				• Ministry of Natural Resources
					• Not applicable.	• Sediment and Erosion Control:
						  ○ Install, monitor, and manage appropriate erosion and sedimentation control measures to minimize or avoid sediment mobilization from the disturbed area to drainages or waterbodies and in accordance with Ontario
						  ○ Provincial Standard Specifications Construction Specification for Temporary Erosion Control (2021a) and Construction Specification for Temporary Sediment Control (2020). Adequate and appropriate erosion and sedimentation control materials shall be on site and available prior to commencement of construction.

1590	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Store fuel and other materials for the machinery in to prevent any deleterious substances from entering a waterbody (Fisheries and Oceans Canada, 2025a).

1591	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada
				• Ministry of Natural Resources
					• Not applicable.	• Temporary erosion control measures must be:
						  ○ Properly installed.
						  ○ Installed before or immediately after initial disturbance.
						  ○ Inspected and properly maintained (e.g., repaired, replaced or supplemented with functional materials) throughout construction until permanent erosion control is established or reclamation is complete.

1592	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• To the extent practical, and while complying with all appropriate mitigation and enhancement measures, complete work below the high-water mark as quickly as possible to shorten the duration of disturbance.
1593	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Train individuals working on site and handling hazardous materials about best practices for the transportation of dangerous goods to avoid negatively affecting fish and fish habitat by introducing hazardous materials into the environment.
1594	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Turbidity and total suspended solids will be monitored according to Fisheries and Oceans Canada, and the Ministry of Natural Resources permit requirements and will follow the Canadian Council of Ministers of the Environment's Canadian Water Quality Guidelines for the Protection of Aquatic Life (Canadian Council of Ministers of the Environment, 1999).
1595	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Upon removal of the temporary crossing materials, return the waterbody banks to their original profile if needed and stabilize disturbed areas, as necessary, to prevent soil erosion.

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1596	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Use erosion resistant fill material below the high-water level within the floodplain of a waterbody.
1597	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Use explosives only if alternate methods of excavation to remove materials for foundation systems and roads is not feasible.
1598	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Wash, refuel, and service machinery to prevent any deleterious substances from entering a waterbody (Fisheries and Oceans Canada, 2025a).
1599	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Waterbody Crossing: ○ Where a channel allows for fish passage, design and install culverts in fish-bearing waterbodies to allow for fish passage to meet Ministry of Natural Resources and Forestry's Environmental Guidelines for Access Roads and Water Crossings (1990) and Fisheries and Oceans Canada's Standards and Code of Practices (2025b, c) and fish passage guidelines (Katopodis and Gervais, 2016; Di Rocco and Gervais, 2024).
1600	• Fish and Fish Habitat	• Fish and Fish Habitat	• Construction	• Fisheries and Oceans Canada • Ministry of Natural Resources	• Not applicable.	• Practices and procedures. Spills and leaks will be contained and cleaned up as soon as possible following incidents.
1601	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A Before-After Control-Impact study is proposed which begins during Construction and continues during Operation and Maintenance would allow for a quantitative assessment of potential effects of each phase of the Project. Data from Construction monitoring will be compared to data collected prior to Construction (i.e., baseline data collected from caribou collars, remote cameras and winter aerial surveys [2020 to 2024]) and data from reference sites (i.e., sites not affected by Construction disturbance) to determine if predictions made in the Environmental Assessment are valid and to monitor changes in population trends and habitat use though time.
1602	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A buffer zone will be placed around the perimeter of blasting activities and surrounding forested habitat. Blasting will be prohibited if large mammals (i.e., moose and / or caribou) are observed within 500 m from the blasting location. Pre-blasting surveys will be developed in the Environmental Protection Plan and followed.
1603	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A comprehensive list of mitigation measures that will be implemented during Operation and Maintenance is provided in Acoustic and Vibration Technical Support Document: Existing Conditions and Effects Assessment (WSP, 2026a).
1604	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A comprehensive list of mitigation measures that will be implemented during Operation and Maintenance is provided in Vegetation Technical Support Document: Existing Conditions and Effects Assessment (WSP, 2026b) and Surface Water Existing Conditions and Effects Assessment Report (WSP, 2026d).

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1605	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A comprehensive list of mitigation measures that will be implemented to limit air particulate emissions during Construction and Operation and Maintenance is provided in the Atmospheric Environment Technical Support Document: Existing Conditions & Effects Assessment Volume 1: Air Quality (Dillon, 2026c).
1606	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A comprehensive list of mitigation measures that will be implemented to limit dust deposition during Construction, Operation and Maintenance is provided in the Atmospheric Environment Technical Support Document: Existing Conditions & Effects Assessment Volume 1: Air Quality (Dillon, 2026c).
1607	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A comprehensive list of mitigation measures to control weeds during construction and operation and maintenance of the Project is provided in the Vegetation Technical Support Document: Existing Conditions and Effects Assessment (WSP, 2026b) and Peatlands: Existing Conditions and Effects Assessment (WSP, 2026c).
1608	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A comprehensive list of mitigation measures to limit changes from erosion and sedimentation during Construction is provided in the Vegetation Technical Support Document: Existing Conditions and Effects Assessment (WSP, 2026b) and the Surface Water Technical Support Document: Existing Conditions & Effects Assessment (WSP, 2026d).
1609	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A comprehensive list of mitigation measures to limit changes to groundwater quantity during Construction, and Operations and Maintenance is provided in the Groundwater Technical Support Document: Existing Conditions and Effects Assessment Report (WSP, 2026e).
1610	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A comprehensive list of mitigation measures to limit changes to groundwater quantity during Detail design is provided in the Surface Water Existing Conditions and Effects Assessment Report (WSP, 2026d).
1611	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A comprehensive list of mitigation measures to limit changes to surface water quality during construction and operation and maintenance, and detail design is provided in the Surface Water Technical Support Document: Existing Conditions and Effects Assessment (WSP, 2026d).

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1612	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A comprehensive list of mitigation measures to limit changes to surface water quality during Construction, and Operation and Maintenance is provided in the Surface Water Existing Conditions and Effects Assessment Report (WSP, 2026d).
1613	• Ungulates	• Ungulates	• Detail Design / Pre-Construction • Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• - A comprehensive list of mitigation measures to limit changes to surface water quality during Detail design, Construction and Operation and Maintenance is provided in the Surface Water Technical Support Document: Existing Conditions and Effects Assessment (WSP, 2026d).	• A comprehensive list of mitigation measures to limit changes to surface water quality during Detail design, Construction and Operation and Maintenance is provided in the Surface Water Technical Support Document: Existing Conditions and Effects Assessment (WSP, 2026d).
1614	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A comprehensive list of mitigation measures to minimize effects from blasting during Construction, Operation and Maintenance is provided in the Acoustic and Vibration Technical Support Document: Existing Conditions and Effects Assessment (WSP, 2026a).
1615	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A comprehensive list of mitigation measures to minimize effects from noise during Construction, and Operation and Maintenance is provided in the Acoustic and Vibration Technical Support Document: Existing Conditions and Effects Assessment (WSP, 2026a).
1616	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A preliminary Biodiversity Offset Plan has been developed to have no net loss of caribou habitat.
1617	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A Vegetation Management Plan including measures to protect rare plants and rare vegetation communities will be developed and implemented by the Owner/Operator. In the event a rare plant species or a rare vegetation community are encountered unexpectedly, or cannot be avoided, the rare plant protection measures outlined in the Vegetation Management Plan will be implemented.
1618	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• A Waste Management Plan will be developed and implemented that describe the appropriate management of solid, liquid and hazardous waste, including: ○ Construction related garbage, debris, and surplus materials. ○ Hazardous materials such as used oil, filter and grease cartridges, lubrication containers. ○ Domestic garbage and camp waste (i.e., food and grey water). Portable, secure, solid waste receptacles will be provided on work sites, temporary laydown areas and temporary construction camps and periodically emptied.

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1619	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Access roads for aggregate areas and other infrastructure required for maintenance activities will be gated to limit public access.
1620	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Along the Project right-of-way and the access roads, gaps will be maintained in road berms and snowbanks to facilitate wildlife crossing at drainages, wildlife trails, strategic crossing points informed by movement data and Indigenous Knowledge, or connected habitat patches so that ungulate movements across roads are not blocked.
1621	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Adhere to federal and provincial regulations and guidelines regarding collection and storage of explosives and solid waste, such as the federal Explosives Act.
1622	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Adhere to federal and provincial regulations and guidelines regarding hazardous substance collection and storage, use and handling, and disposal and treatment, such as the federal Transportation of Dangerous Goods Act, provincial Dangerous Goods Handling and Transportation Act, and the Environment Act.
1623	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Adhere to federal and provincial regulations and guidelines regarding hazardous substance collection and storage, use and handling, and disposal and treatment, such as the federal Transportation of Dangerous Goods Act, provincial Dangerous Goods Handling and Transportation Act, and the Environment Act. Locate project infrastructure systems away from key habitats (i.e., critical habitat, biophysical attributes as defined in Federal Recovery Strategy, Significant Wildlife Habitat) as much as possible.
1624	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Aerial operations will be limited when possible; when not feasible, minimum ferry altitude of 400 m above ground level will be maintained during sensitive timing periods to reduce sensory disturbance on caribou.
1625	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	Not applicable.	• All work areas will be clear of any attractants such as food scraps and food containers.

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1626	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Along the Project right-of-way and the access roads, gaps will be maintained in road berms and snowbanks to facilitate wildlife crossing at drainages, wildlife trails, strategic crossing points informed by movement data and Indigenous Knowledge, or connected habitat patches so that ungulate movements across roads are not blocked.
1627	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• An Environmental Protection Plan and a Cleanup and Reclamation Plan will be developed and implemented. Where necessary, seedling planting will occur to improve restoration success on areas of temporary disturbance (e.g., temporary access roads, laydown areas, camps, and workspaces) where habitat enhancement is identified. Reclamation plans will be confirmed through engagement with Indigenous communities, the Ministry of Natural Resources and local foresters. Effectiveness of revegetation efforts will be monitored and managed post-construction, including confirmation that vegetation communities that naturally regenerate (or were planted) are similar to adjacent vegetation communities. If required, adaptive management will be employed to modify or enhance any reclamation efforts.
1628	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• An Environmental Protection Plan will be developed and implemented that includes measures to limit noise disturbance from construction activities; this includes prohibiting use of engine retarder brakes, enforcing speed limits, reducing idling of vehicles, designing routes to minimize reversing (backup beeper), reducing traffic by locating camps near construction sites, and restricting construction traffic to designated areas and only construction personnel.
1629	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• An Environmental Protection Plan will be developed and implemented that includes policies and actions anticipated to mitigate the attraction of wildlife to the Construction Disturbance Area, particularly near the temporary construction staging areas and temporary construction camps.
1630	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• An Environmental Protection Plan will be implemented that includes policies and actions for avoiding and minimizing the risks of blasting and blasting materials to wildlife, including ungulates.
1631	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• As per the Ministry of Transportation's Debris Control Maintenance Quality Standard (MQS-331), debris less than 1 m in diameter, including roadkill, will be removed within 48 hours; debris greater than 1 m in diameter will be removed as detected (Ministry of Transportation, 2003).

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1632	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• As per the Ministry of Transportation's Weed Control Maintenance Best Practice (MBP-320), invasive plant species will be controlled using a combination of biological, chemical, cultural, manual, and mechanical control methods during Operation and Maintenance (Ministry of Transportation, 2003).
1633	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• At watercourse crossings that occur within Category 1 caribou habitat and are on the north-south segment of the preferred route (i.e., multi-span bridges WA-11 and WA-15, and clear-span bridge WA-18; Figure 6-), and at watercourse crossings that occur within Category 1 habitat and on the east-west segment of the preferred route (i.e., multi-span bridges W-34 and W-35, and clear-span bridges NW-11, NW-12, NW-13, NW-14, NW-15, NW15A, NW-16, NW 17, NW-18; Figure 6-) modified bridge and bridge embankments will be designed to incorporate terrestrial pathways adjacent to the aquatic habitat and allow for ungulate passage, where feasible given land cover considerations. These design features include increasing the height of bridge to minimum 4 m vertical clearance, using natural substrates on the bridge embankments and under the bridge, allow for an unobstructed line of sight on either side of the bridge, and clear and maintain the minimum width of right-of-way at bridge crossings. In other locations along the Community Access Road where frequent crossings of species at risk are anticipated (i.e., in caribou Category 1 habitat [Figures 7-35 to 7-37] and moose high suitability habitats [Figure 7-42]), reduced speed limits will be implemented and wildlife-friendly road embankments with gentle slopes (i.e., gradual incline) and smooth crush material will be constructed to encourage safe crossing. Specific sites will be informed by caribou collar data, habitat modelling and Indigenous Knowledge. Traffic speeds during Construction Phase will be posted. Speeds will be determined by temporary access road conditions and the discretion of the Owner/Operator.
1634	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Avoid re-entry and disturbance of reclaimed temporary access areas through combined use of physical control measures (rollback, remove of creek crossings, recontouring to surrounding topography, revegetation / reforesting and / or barriers at junctions with active access).
1635	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Blasting will be suspended within 10 km of known or potential caribou Category 1 areas during sensitive periods to minimize sensory disturbances (nursery areas: May 1 to July 14 very low tolerance, July 15 to September 15 low tolerance; winter use areas: December 1 to March 31; MNR 2013b,c). If timing windows cannot be adhered to, follow environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks and Ontario Ministry of Natural Resources.

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1636	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Blasting work will be completed as quickly as possible to shorten the duration of disturbance.
1637	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Collect domestic (e.g., food) and industrial (e.g., used oil and lubricants) waste and store temporarily in wildlife proof containers. Transport all waste off-site for recycling or disposal at a licensed disposal facility.
1638	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Collision risk during construction will be minimized with implementation of the Environmental Protection Plan, which includes measures to minimize collisions between wildlife and vehicles during Construction. Measures will include an education program that details to staff, contractors, and visitors how to take all reasonable precautions to avoid wildlife collisions. In addition, the Environmental Protection Plan will include measures such as: ○ Giving wildlife the right-of-way. ○ Signage in areas where wildlife is regularly observed. ○ Radio communication between staff of wildlife presence in construction area. ○ Coordinating worker transportation to site to reduce traffic volumes, where practicable. ○ Confining vehicle traffic to approved right-of-way, workspace and access roads. ○ Leaving gaps in road berms and snowbanks to allow for movement across the construction area. ○ Restrictions on the use of motorized recreational vehicles by employees and contractors while working, including prohibition of personal snowmobiles, all-terrain vehicles and other motorized recreational vehicles, except for authorized purposes. ○ Mandatory encounter and incident reporting. ○ Reduced and enforced speed limits.
1639	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Commercial vehicles who are transporting dangerous goods on the Community Access Road should be adhering to the federal Transportation of Dangerous Goods Act and Ontario's Dangerous Goods Handling and Transportation Act.
1640	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Complete maintenance work as quickly as possible to shorten the duration of disturbance.

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1641	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Concentrate activities spatially and temporally to minimize fragmentation and barriers to movement.
1642	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Construct temporary linear features to decrease predator efficiency (e.g., retain vegetation under 2 m, minimize width of linear features, switch backs and bends in temporary road construction), and reduce predator mobility (e.g., not removing snow unless necessary).
1643	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Construction of the Community Access Road will be conducted in phases (segment by segment) to concentrate activities spatially and temporally to minimize fragmentation and barriers to movement across the landscape.
1644	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Construction of the Community Access Road will be conducted in phases (segment by segment) to limit the amount of disturbance at any particular time.
1645	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Construction of the Community Access Road will be conducted in phases to limit the amount of disturbance at any particular time.
1646	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Construction related garbage, debris, and surplus materials.
1647	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Construction staff will be educated about hazards of littering and feeding wildlife. A no littering policy will be implemented and enforced.

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1648	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Construction will be completed as quickly as possible to shorten the duration of disturbance.
1649	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• De-icing salts will not be used on the unpaved Community Access Road during construction or operation.
1650	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Design and construct temporary linear features to decrease predator efficiency (e.g., retain vegetation under 2 m, minimize width of linear features, switch backs and bends in temporary road construction), and reduce predator mobility (e.g., not removing snow unless necessary).
1651	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Design temporary linear features to decrease predator efficiency (e.g., retain vegetation under 2 m, minimize width of linear features, switch backs and bends in temporary road construction).
1652	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Domestic garbage and camp waste (i.e., food and grey water). Portable, secure, solid waste receptacles will be provided on work sites, temporary laydown areas and temporary construction camps and periodically emptied
1653	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• During Construction, Operations and Maintenance , employees will be prohibited from personal use of motorized recreational vehicles and will be prohibited from hunting or carrying firearms.
1654	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• During Construction, heavy trucks will be travelling at reduced speeds and will be adjusted according to conditions (e.g., wildlife in the area, weather conditions).

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1655	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• During Construction, the ongoing use of inactive areas by the public will be minimized through physical control measures such as rollback, removal of creek crossings, felling of timber across temporary access roads, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access.
1656	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• During Construction, the ongoing use of inactive areas by the public will be minimized through physical control measures such as rollback, removal of creek crossings, felling of timber across temporary access roads, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access. Progressive reinstatement and revegetation would be implemented as non-permanent features would be decommissioned and restored or revegetated naturally.
1657	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• During Operation and Maintenance, mitigation measures applicable to non-commercial traffic will include signage in areas where wildlife are regularly observed and reduced speed limits in Category 1 caribou habitat areas. Additional mitigation for commercial traffic will include reduced and enforced speed limits on the entire road, communication of wildlife presence between drivers, and mandatory reporting of wildlife incidents.
1658	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• During Operation and Maintenance, mitigation measures applicable to non-commercial traffic will include signage in areas where wildlife are regularly observed, reduced speed limits in Category 1 caribou habitat areas, and reduced speed limits at the major bridge crossings over the Ogoki River and Albany River where higher moose and bat occurrence is predicted. Additional mitigation for commercial traffic will include reduced and enforced speed limits on the entire road, communication of wildlife presence between drivers, and mandatory reporting of wildlife incidents.
1659	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• During Operation and Maintenance, the ongoing use of inactive areas by predators will be minimized through physical control measures such as rollback, removal of creek crossings, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access.
1660	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• During Operation and Maintenance, the ongoing use of inactive areas by the public will be minimized through physical control measures such as rollback, removal of creek crossings, felling of timber across temporary access roads, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access.

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1661	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• During Operation and Maintenance, the ongoing use of inactive areas by the public will be minimized through physical control measures such as rollback, removal of creek crossings, felling of timber across temporary access roads, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access. Progressive reinstatement and revegetation would be implemented as non-permanent features would be decommissioned and restored or revegetated naturally.
1662	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• During Operation and Maintenance, the ongoing use of inactive areas by the public will be minimized through physical control measures such as rollback, removal of creek crossings, felling of timber across temporary access roads, recontouring to surrounding topography, revegetating /reforesting and / or barriers at junctions with active access. Progressive reinstatement and revegetation would be implemented as non-permanent features would be decommissioned and restored or revegetated naturally.
1663	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• During the winter periods, sand will be used on the Community Access Road for de-icing instead of road salt.
1664	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Empty chemical toilets on site regularly by a licensed sewage-handling contractor.
1665	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Engage and consult with Indigenous communities and federal and provincial regulators to confirm the mitigations to be implemented during Construction, Operation and Maintenance.
1666	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Environmental approval conditions, permits, or authorizations issued for the Project '-Construction, including those issued from Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks and Ontario Ministry of Natural Resources will be followed.
1667	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Environmental approval conditions, permits, or authorizations issued for the Project Construction, including those issued from Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks and Ontario Ministry of Natural Resources will be followed.

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1668	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Environmental approval conditions, permits, or authorizations issued for the Project Construction, including those issued from Fisheries and Oceans Canada, Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks and Ontario Ministry of Natural Resources, will be followed.
1669	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Environmental approval conditions, permits, or authorizations issued for the Project Operation and Maintenance, including those issued from Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks and Ontario Ministry of Natural Resources, will be followed.
1670	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks and Ontario Ministry of Natural Resources, will be followed during Construction, Operations and Maintenance
1671	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks, Fisheries and Oceans Canada, and Ontario Ministry of Natural Resources, will be followed during Detail design and Construction
1672	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks, Fisheries and Oceans Canada, and Ontario Ministry of Natural Resources, will be followed during Detail design, Operations and Maintenance and Construction
1673	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks, Fisheries and Oceans Canada, and Ontario Ministry of Natural Resources, will be followed during Construction
1674	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks, Fisheries and Oceans Canada, and Ontario Ministry of Natural Resources, will be followed during Maintenance.

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1675	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Erosion and sediment control measures will be developed in accordance with Ontario Provincial Standard Specifications for erosion and sediment control measures (OPSS.PROV.804 and OPSS.MUNI.805)
1676	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Erosion and sediment control measures will be implemented in accordance with Ontario Provincial Standard Specifications for erosion and sediment control measures (OPSS.PROV.804 and OPSS.MUNI.805).
1677	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Erosion control practices (e.g., contouring) will limit wind and water erosion on cover soil and overburden stockpiles (e.g., vegetation, erosion mats) as well as will encourage regrowth of vegetation.
1678	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Feeding and harassment of wildlife on site will be prohibited.
1679	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Follow best management practices and environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Fisheries and Oceans Canada, the Ministry of Environment, Conservation and Parks, and the Ministry of Natural Resources, during detail design.
1680	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Follow best management practices and environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Fisheries and Oceans Canada, Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks and Ontario Ministry of Natural Resources.
1681	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Follow Ontario Provincial Standard Specification 411 and regularly inspect and maintain culverts and bridges

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1682	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Gaps in snowbanks will be ploughed at least every 1 km apart and maintained by road maintenance crews throughout the winter season.
1683	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Generally, roadkill will be removed from the effects assessment Construction Disturbance Area and relocated to adjacent brush areas, as per the Waste and Excess Materials Management Environmental Protection (EP-9) requirements in the Ministry of Transportation's Maintenance Manual (Ministry of Transportation, 2003). As per the Waste and Excess Materials Management Environmental Protection requirements in the Maintenance Manual, depending on the location and weather at the time of roadkill removal, burial of small mammals occur in the roadside ditches, if this activity is permitted under a Certificate of Approval for Waste Management System (Ministry of Transportation, 2003).
1684	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Hazardous materials such as used oil, filter and grease cartridges, lubrication containers.
1685	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Implement an Environmental Protection Plan that includes measures to control, and / or restrict public use of access roads during Construction. Measures may include gates / manned gates, signage, reduced road standard, reduced speed limits, felling of timber across temporary access roads after reclaimed, removal of temporary watercourse crossings. Posting and enforcement of restricted access and speed signage will follow the Construction Specification for Temporary Traffic Control Devices (Ontario Provincial Standard Specification, 2016). Marten Falls First Nation continues to engage in discussions with the Province regarding the ownership and future operations and maintenance of the Community Access Road. Access and ownership including gating security / ID system, will require further dialogue between the communities and the Province.
1686	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Implement the environmental monitoring program, including mitigation for invasive plant species.

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1687	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Implement the environmental monitoring program, including mitigation measures to control dust and air emissions.
1688	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Implement the environmental monitoring program, including mitigation measures to control erosion and sedimentation during Construction, Operations and Maintenance
1689	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Implement the Environmental Protection Plan during Construction, Operations and Maintenance including policies and actions for avoiding and minimizing the risks of blasting and blasting materials to wildlife.
1690	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Implement the Environmental Protection Plan, including policies and actions for handling and storage of waste as well as management of materials and stockpiles.
1691	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Implement the Environmental Protection Plan.
1692	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Implement the Spill Prevention and Emergency Response Plan that describes specific measures if a spill occurs.
1693	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• In the event of a mortality of a species at risk due to collisions with equipment or vehicles during Construction and/or Operations and Maintenance, the contractor and/or operator should report the incident to SAROntario@ontario.ca and the Natural Heritage Information Centre at NHICRequests@ontario.ca.

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1694	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Increased predator access—increased access for predators (e.g., wolf and black bear) and prey may increase predation risk and decrease survival and reproduction for moose and caribou.
1695	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Industry best practices will be used for blasting activities, including scheduling when in the vicinity of sensitive wildlife habitat areas. Forest buffers (30 m width) will be retained around quarries to reduce noise, where feasible.
1696	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Known sensitive ecological features will be clearly marked (e.g., wetlands and significant wildlife habitat) with associated setbacks. Engage with applicable government agency (Ministry of the Environment, Conservation and Parks, Ministry of Natural Resources and Environment and Climate Change Canada) if sensitive ecological features are encountered or cannot be avoided.
1697	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Lighting required for Operation and Maintenance, including direction and timing to avoid effects on ungulates, will be controlled while meeting operational health and safety requirements.
1698	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Limit aerial operations when possible. When not feasible, a minimum ferry altitude of 400 m above ground level will be maintained during sensitive timing periods to reduce sensory disturbance on caribou.
1699	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Limit clearing of riparian vegetation (i.e., within 30 m of waterbodies) to the extent practical and to the requirement of the access road and alignment clearing width only.
1700	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Limit light disturbance from nighttime operational activities by using directional lighting. Lighting required for Construction, including direction and timing to avoid effects on ungulates, will be controlled while meeting operational health and safety requirements.

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1701	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Limit the Project footprint to the extent feasible.
1702	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Limit to the extent feasible the construction of temporary (e.g., access road) and permanent structures in wetlands or within 30 m setback from a wetland. If construction cannot avoid wetlands and 30 m setback, Ministry of Natural Resources will be notified as soon as possible prior to work starting. Work may will not be conducted unless approval is obtained from the appropriate regulatory agencies.
1703	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Limit to the extent practicable the construction of temporary (e.g., access road, travel lane) and permanent structures in wetlands or within 30 m setback from a wetland. If construction cannot avoid wetlands and 30 m setback, Ministry of Natural Resources will be notified as soon as possible prior to work starting. Work may will not be conducted unless approval is obtained from the appropriate regulatory agencies.
1704	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Locate the Project route in such a way that minimizes overlap with sensitive habitats to the extent feasible, including provincially identified Category 1 areas for - caribou (nursery areas, winter use areas, travel corridors; Government of Ontario, 2013a) and potential new Category 1 areas identified in this EA/IS, areas which contain biophysical habitat attributes for caribou (ECCC, 2020), and significant wildlife habitat for moose.
1705	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Locate the Project route in such a way that minimizes overlap with sensitive habitats to the extent feasible, including provincially identified Category 1 areas for caribou (nursery areas, winter use areas, travel corridors; Government of Ontario, 2013a) and potential new Category 1 areas identified in this Environmental Assessment / Impact Statement, areas which contain biophysical habitat attributes for caribou (ECCC, 2020), and significant wildlife habitat for moose.
1706	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Locate the Project route in such a way that minimizes overlap with sensitive habitats to the extent feasible, including provincially identified Category 1 areas for caribou (nursery areas, winter use areas, travel corridors; Government of Ontario, 2013a) and potential new Category 1 areas identified in this EA/IS, areas which contain biophysical habitat attributes for caribou (ECCC, 2020), and significant wildlife habitat for moose.
1707	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Locate the Project route in such a way that minimizes overlap with sensitive habitats to the extent feasible, including provincially identified Category 1 areas for caribou (nursery areas, winter use areas, travel corridors; Government of Ontario, 2013a) and potential new Category 1 areas identified in this Environmental Assessment / Impact Statement, areas which contain biophysical habitat attributes for caribou (ECCC 2020), and significant wildlife habitat for moose.

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1708	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Maintain or improve ungulate habitat by using techniques that accelerate revegetation (e.g., minimize topsoil removal, preserve adequate substrate, leave surface vegetation root mat intact).
1709	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Maintenance activities with high levels of disturbance will avoid the sensitive timing windows for caribou (i.e., May 1 to September 15 for nursery areas, December 1 to March 31 for winter use areas) in known and potential new Category 1 areas, to the extent practical. When activity restrictions cannot be followed, the Ministry of Environment, Conservation and Parks will be engaged to determine alternative approaches.
1710	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Maintenance work will be completed as quickly as possible to shorten the duration of disturbance.
1711	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Marten Falls First Nation continues to engage in discussions with the Province regarding the ownership and future operations and maintenance of the Community Access Road. Access and ownership including gating security / ID system, will require further dialogue between the communities and the Province.
1712	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Meet the Transportation of Dangerous Goods Act, Ontario Dangerous Goods Handling and Transportation Act and the Ontario Environmental Protection Act for the transport, storage, and handling of fuels required for Maintenance.
1713	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Minimize elevation and slope of soil piles and berms to allow ungulates to have clear line of sight to adjacent habitat.
1714	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Mitigation identified in the Ministry of Transportation's Maintenance Quality Standards and Maintenance Best Practices for highway maintenance (Ministry of Transportation, 2003) will be implemented to minimize erosion and sedimentation during Operation and Maintenance.

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1715	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Mitigation measures described in the Surface Water Existing Conditions and Effects Assessment Report (WSP, 2026d), Groundwater Technical Support Document: Existing Conditions and Effects Assessment Report (WSP, 2026e), Physiography, Terrain, and Soils Technical Support Document: Existing Conditions and Effects Assessment Report (WSP, 2026f), and Vegetation Technical Support Document: Existing Conditions and Effects Assessment (WSP, 2026b) will be implemented to minimize effects from chemical and hazardous material spills in the ungulate effects assessment Local Study Area during Construction, Operation and Maintenance. The transportation, storage, and handling of fuels will be in compliance with the Technical Standards and Safety Act, 2000 (Government of Ontario, 2000) and Canada's Transportation of Dangerous Goods Act, 1992 (Government of Canada, 1992).
1716	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Mitigation measures described in the Surface Water Technical Support Document: Existing Conditions and Effects Assessment (WSP, 2026d), Groundwater Technical Support Document: Existing Conditions and Effects Assessment (WSP, 2026e), Physiography, Terrain, and Soils Technical Support Document: Existing Conditions & Effects Assessment (WSP, 2026f), and Vegetation Technical Support Document: Existing Conditions and Effects Assessment (WSP, 2026b) will be implemented to minimize effects from chemical and hazardous material spills in the ungulate effects assessment Local Study Area during Construction.
1717	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Mitigation measures described in the Surface Water Technical Support Document: Existing Conditions and Effects Assessment (WSP, 2026d), Groundwater Technical Support Document: Existing Conditions and Effects Assessment (WSP, 2026e), Physiography, Terrain, and Soils Technical Support Document: Existing Conditions & Effects Assessment (WSP, 2026f), and Vegetation Technical Support Document: Existing Conditions and Effects Assessment (WSP, 2026b) will be implemented to minimize effects from chemical and hazardous material spills in the ungulate effects assessment Local Study Area during Operation and Maintenance.
1718	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Multi-passenger vehicles (e.g., buses) will be used to transport workers to site when practicable.
1719	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Noise abatement, emission and pollution control equipment on machinery will be in place, properly maintained and in good working order.

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1720	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Ongoing use of inactive areas will be prevented through combined use of physical control measures (rollback, remove of creek crossings, recontouring to surrounding topography, revegetation / reforesting and / or barriers at junctions with active access).
1721	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Open excavations and blasting areas will be fenced off if left unsupervised to avoid injury and mortality of ungulates.
1722	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Posting and enforcement of restricted access and speed signage will follow the Construction Specification for Temporary Traffic Control Devices (Ontario Provincial Standard Specification, 2016).
1723	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Posting and enforcement of speed limits to reduce vehicle speeds and associated noise and dust emission levels.
1724	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Potential mitigation measures outlined in the Ontario Ministry of Transportation's Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions for Provincial Transportation Projects (Ontario Ministry of Transportation, 2020) may be implemented during Detail design, if feasible.
1725	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Potentially toxic materials that attract wildlife will be stored in secure areas inaccessible to wildlife (e.g., buildings, storage areas surrounded by wildlife-proof fencing), and toxic materials will be monitored continuously when removed from storage until they are used or returned to storage to prevent wildlife accessing and ingesting the materials.
1726	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Prepare a Blasting and Communication Management Plan that is in accordance with Ontario Provincial Standard Specification General Specifications for the Use of Explosives (OPSS, 2014) and describes specific measures that would be implemented if blasting is required.

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1727	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Prepare a Cleanup and Reclamation Plan that describes restoration plan including seedling planting, if necessary, to improve restoration success on areas of temporary disturbance (e.g., temporary access roads, laydown areas, camps, and workspaces). Reclamation plans will be confirmed through engagement with Indigenous communities, the Ministry of Natural Resources and local foresters.
1728	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Prepare a Spill Prevention and Emergency Response Plan that describes specific measures that would be implemented if a spill occurred.
1729	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Prepare a Waste Management Plan that describe the appropriate management of solid, liquid and hazardous waste, including:
1730	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Prepare an Environmental Protection Plan that includes measures to control, and / or restrict predator use of access roads during Construction. Measures will include felling of timber across temporary access roads after reclaimed, and removal of temporary watercourse crossings.
1731	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Prepare an Environmental Protection Plan that includes measures to minimize collisions between wildlife and vehicles during Construction. Measures will include an education program that details to staff, contractors, and visitors how to take all reasonable precautions to avoid wildlife collisions. In addition, the Environmental Protection Plan will include measures such as: ○ Giving wildlife the right-of-way. ○ Signage in areas where wildlife are regularly observed. ○ Radio communication between staff of wildlife presence in construction area. ○ Coordinating worker transportation to site to reduce traffic volumes, where practicable. ○ Confining vehicle traffic to approved right-of-way, workspace and access roads. ○ Leaving gaps in road berms and snowbanks to allow for movement across the construction area. ○ Restrictions on the use of motorized recreational vehicles by employees and contractors while working, including prohibition of personal snowmobiles, all-terrain vehicles and other motorized recreational vehicles, except for authorized purposes. ○ Mandatory encounter and incident reporting. ○ Reduced and enforced speed limits.

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1732	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Prepare an Environmental Protection Plan that includes policies and actions anticipated to mitigate the attraction of wildlife to the Construction Disturbance Area, particularly near the temporary construction staging areas and temporary construction camps.
1733	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Prepare an Environmental Protection Plan that includes policies and actions anticipated to mitigate the barrier to movement by caribou.
1734	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Prepare an Environmental Protection Plan that includes policies and actions for avoiding and minimizing the risks of blasting and blasting materials to wildlife, including ungulates.
1735	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Prepare an Environmental Protection Plan will be that includes measures to limit noise disturbance from construction activities; this includes prohibiting use of engine retarder brakes, enforcing speed limits, reducing idling of vehicles, designing routes to minimize reversing (backup beeper), reducing traffic by locating camps near construction sites, and restricting construction traffic to designated areas and only construction personnel.
1736	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Prepare the environmental monitoring program that will contain mitigation measures to control dust and air emissions.
1737	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Prepare the environmental monitoring program that will contain mitigation measures to control erosion and sedimentation.
1738	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Prepare the environmental monitoring program that will contain mitigation measures to control invasive plant species

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1739	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Prevent ongoing use of inactive areas through combined use of physical control measures (rollback, remove of creek crossings, recontouring to surrounding topography, revegetation / reforesting and / or barriers at junctions with active access).
1740	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Prevent ongoing use of inactive areas through combined use of physical control measures (rollback, remove of creek crossings, recontouring to surrounding topography, revegetation /reforesting and / or barriers at junctions with active access).
1741	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Prevent starting wildfires from Project activities (e.g., have readily available fire extinguishers, firefighting equipment, water packs / pails, provide firefighting training to staff, keep equipment clean and in good condition, no smoking outside designated areas, prepare an Emergency Response Plan).
1742	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Progressive reclamation and revegetation would be implemented as non-permanent features would be decommissioned and reclaimed or revegetated naturally.
1743	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Progressive restoration and revegetation would be implemented as non-permanent features would be decommissioned and restored or revegetated naturally. The time interval between commencement and completion of any work that disturbs earth surfaces shall be a maximum of 20 calendar days. Commencement of such work shall be considered to have occurred when the original stabilizing ground cover has been removed, including grubbing, or has been covered with fill material. Completion of such work shall be considered to have occurred when the cover material (seed and mulch, seed and erosion control blanket, sod, rip-rap, etc.) has been applied. Where the timing of the operation results in a conflict with the application requirements of the specified cover, the Owner shall determine appropriate interim measures that afford temporary protection until such a time as final cover can be applied. Additional information about the expected timeline for restoration activities is described in Section 9.4.7.4 of the Final Environmental Assessment / Impact Statement.

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1744	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Reclaim temporary access roads, construction camps, waterbody crossings and laydown areas at the end of construction.
1745	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Rest areas will be available every 50 km along the road during Operation and Maintenance. The rest areas will be staggered every 25 km, alternating on each side of the highway. These rest areas will contain waste receptacles. As per the Ministry of Transportation's Rest Area/Picnic Site Maintenance Best Practice (MBP-325), during the rest areas operating season (i.e., months during the year when temperatures remain above 0°C and closing no sooner than October 15), litter in waste receptacles will be removed from rest areas when waste receptacles are 75% full (Ministry of Transportation, 2003).
1746	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Restore on site should consider maintaining or improving wildlife habitat. Consider planting native trees, preferably conifers, to accelerate revegetation of the access roads and other temporary disturbances (or progressive reclamation through project life cycle).
1747	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Restrict wildlife access to waste (e.g., collect domestic and industrial waste and store in temporary containers until transported off-site, empty chemical toilets regularly, prohibit littering, prohibit feeding and harassment of wildlife).
1748	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Restricting construction traffic to designated areas;
1749	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Retain function, quality and connectivity of compatible habitat features (e.g., vegetation, trees, wildlife trees, coarse woody debris) as much as possible, particularly in selective, environmentally sensitive areas, to the extent practical and where safe to do so (e.g., using proper setbacks of key habitat features, avoid severe water fluctuations, avoid terrestrial islands, avoid mineral licks, avoid unburned areas within wildfire perimeters, avoid migratory pathways).
1750	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Roadkill will be cleaned up during construction and operation following best management practices outlined by Ontario's Ministry of Transportation.

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1751	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Roadkill, debris, and waste management as per Ministry of Transportation's Debris Control Maintenance Quality Standard (MQS-331) and Ministry of Transportation's Rest Area/Picnic Site Maintenance Best Practice (MBP-325).
1752	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Snow clearing along the road will incorporate road pull-outs at regular intervals to provide refuge for wildlife moving along the Community Access Road corridor.
1753	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Snowbanks will be limited as much as possible and to a height of less than 1.6 m.
1754	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Speed limits will be enforced to reduce noise associated with vehicle traffic.
1755	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• The Environmental Protection Plan will also outline measures to minimize wildlife-human interactions during Construction, including an education program that details to staff, contractors, and visitors how to take all reasonable precautions to avoid wildlife conflicts, mandatory encounter and incident reporting, and signage identifying dangers of discharging firearms near industrial activity.
1756	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• The Environmental Protection Plan will be implemented to minimize sensory disturbance by contractors during Operation and Maintenance, including prohibiting use of engine retarder brakes, enforcing speed limits, and restricting maintenance traffic to designated areas.

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1757	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• The method of domestic sewage disposal at temporary construction camps will be determined during detail design. Options may include holding tank systems with off-site disposal or on-site leaching beds designed in accordance with applicable codes and approvals. All required permits and authorizations will be acquired for construction and operation of these. Where subsurface sewage disposal systems are proposed, they will be designed in accordance with the Ontario Building Code (OBC) for systems under 10,000 L/day. For systems exceeding this threshold, approval under Section 53 of the Ontario Water Resources Act (OWRA) will be obtained. If required and when feasible, domestic wastewater will be removed by approved disposal trucks and disposed of at wastewater treatment plants with the authorization and capacity to accept this wastewater.
1758	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• The mitigation measures established and refined using adaptive management during Project Construction should be maintained during Maintenance.
1759	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• The ongoing use of inactive areas by the public will be minimized through physical control measures such as rollback, removal of creek crossings, felling of timber across temporary access roads, recontouring to surrounding topography, revegetating / reforesting and / or barriers at junctions with active access.
1760	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• The Project construction schedule will avoid activities during the sensitive timing windows for caribou (i.e., May 1 to September 15 for nursery areas, December 1 to March 31 for winter use areas) within 10 km of known and potential new Category 1 areas, to the extent practical. When activity restrictions cannot be followed, the Ministry of Environment, Conservation and Parks will be engaged to determine alternative approaches.
1761	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• The Project construction schedule will avoid activities during the sensitive timing windows for caribou (i.e., May 1 to September 15 for nursery areas, December 1 to March 31 for winter use areas) within 10 km of known and potential new Category 1 areas, to the extent practical. When activity restrictions cannot be followed, the Ministry of Environment, Conservation and Parks will be engaged to determine alternative approaches.
1762	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• The Project footprint is designed to minimize vegetation clearing and access road requirements to the extent feasible (e.g., concentrate temporary activities spatially, retain habitat outside of scoped Construction Disturbance Area, restrict construction vehicle traffic to established access roads where feasible).

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1763	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• The time that Maintenance materials are left on the ground will be minimized to limit physical barriers to movement.
1764	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• The time that road Construction materials are left on the ground will be minimized to limit physical barriers to movement.
1765	• Ungulates	• Ungulates	• Construction • Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• To minimize ongoing attraction of predators to the Project area, roadkill will be cleaned up following best management practices outlined by Ontario's Ministry of Transportation and wildlife access to waste will be restricted.
1766	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Traffic speeds during Construction Phase will be posted. Speeds will be determined by temporary access road conditions and the discretion of the Owner/Operator.
1767	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Traffic speeds during the Operation and Maintenance Phase will be posted and enforced.
1768	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Under non-frozen conditions and where regulatory approvals allow, install mats (e.g., rig mats, swamp mats or access mats) to limit effects on waterbodies and wetlands, if warranted and surface conditions require.
1769	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Use construction practices which encourage the eventual natural recovery / growth of native species (e.g., winter exploration programs on frozen ground with no ripping or grubbing soil).

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1770	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Use existing access road where possible.
1771	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Use progressive restoration and adopt practices to facilitate conifer recovery (e.g., elevate mulching drums) on site once temporary construction areas are no longer needed. The time interval between commencement and completion of any work that disturbs earth surfaces shall be a maximum of 20 calendar days. Commencement of such work shall be considered to have occurred when the original stabilizing ground cover has been removed, including grubbing, or has been covered with fill material. Completion of such work shall be considered to have occurred when the cover material (seed and mulch, seed and erosion control blanket, sod, rip-rap, etc.) has been applied. Where the timing of the operation results in a conflict with the application requirements of the specified cover, the Owner shall determine appropriate interim measures that afford temporary protection until such a time as final cover can be applied. Additional information about the expected timeline for restoration activities is described in Section 9.4.7.4 of the Final Environmental Assessment / Impact Statement.
1772	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Use progressive restoration on site once staging areas are no longer needed and prevent ongoing use of inactive areas through combined use of physical control measures (rollback, remove of creek crossings, recontouring to surrounding topography, revegetation / reforesting and / or barriers at junctions with active access). The time interval between commencement and completion of any work that disturbs earth surfaces shall be a maximum of 20 calendar days. Commencement of such work shall be considered to have occurred when the original stabilizing ground cover has been removed, including grubbing, or has been covered with fill material. Completion of such work shall be considered to have occurred when the cover material (seed and mulch, seed and erosion control blanket, sod, rip-rap, etc.) has been applied. Where the timing of the operation results in a conflict with the application requirements of the specified cover, the Owner shall determine appropriate interim measures that afford temporary protection until such a time as final cover can be applied. Additional information about the expected timeline for restoration activities is described in Section 9.4.7.4 of the Final Environmental Assessment / Impact Statement.

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1773	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Vehicular traffic will be confined to approved right-of-way, workspace and access roads or trails.
1774	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Where possible, schedule work activities in wet areas during frozen conditions.
1775	• Ungulates	• Ungulates	• Construction	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Wildlife awareness training will be provided for road construction workers to reduce vehicle speeds and associated noise and dust emission levels;
1776	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• Environmental approval conditions, permits, or authorizations issued for the Project, including those issued from Environment and Climate Change Canada, Ontario Ministry of Environment, Conservation and Parks and Ontario Ministry of Natural Resources, will be followed during Operation and Maintenance.
1777	• Ungulates	• Ungulates	• Operations and Maintenance	• Ministry of Natural Resources • Ministry of Environment, Conservation and Parks • Environment and Climate Change Canada • Fisheries and Oceans Canada • Ministry of Transportation	• Not applicable.	• The groundwater monitoring program is described in more detail in the Peatlands Technical Support Document: Existing Conditions and Effects Assessment (WSP, 2026).
1787	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator will implement a monitoring program and perform safety checks at work camps and entry points (e.g., airport) for alcohol and substances to prevent entry into the community
1788	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator will develop a community-based reporting system that enables Indigenous community members and employees to anonymously report concerns, including those relating to violence, harassment, and crime, providing an option for anonymous reporting.
1789	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator will provide training and hand-off of all reporting mechanisms that are implemented by the Operator, so that the data remains in the hands of the community to support long-term response and prevention.

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1790	• Community Well-Being	• Community Well-Being	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• Owner / operator to develop an on-site safety and emergency preparedness program to include: ○ Implement on-site fire suppression systems, including sprinklers and fire extinguishers, to minimize reliance on local fire services. ○ Provide on-site medical care (paramedics, first aid stations, medics) to reduce pressure on local emergency response services. ○ Train and employ on-site security personnel to monitor safety compliance and enforce safety policies, reducing the strain on local police. ○ Work with the Ministry of Health and other appropriate government agencies to develop a co-ordinated emergency response plan with local responders for efficient handling of construction-related incidents requiring additional personnel. ○ Establish emergency response plans, including clear communication protocols between the construction teams and local emergency responders.
1791	• Surface Water	• Surface Water	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• During construction, monitoring of surface water quantity and quality parameters (including but not limited to water taking and discharge rates, pH, total suspended solids, turbidity, temperature, dissolved oxygen, biochemical oxygen demand, and other contaminants of concerns as required). Monitoring of total suspended solids and / or turbidity instrumented measurements and / or visual observations), as well as visual inspections to confirm the presence or absence of oil or sheen.
1792	• Groundwater	• Groundwater	• Detail Design / Pre-Construction • Construction	• Ministry of the Environment, Conservation and Parks	• A construction groundwater monitoring program to continue the pre-construction monitoring through construction activities to identify and quantify any impacts to groundwater levels or quality resulting from construction activities. Groundwater quality should be sampled at the monitoring stations at least monthly for the same parameters as the pre-construction monitoring.	• A construction groundwater monitoring program to continue the pre-construction monitoring through construction activities to identify and quantify any impacts to groundwater levels or quality resulting from construction activities. Groundwater quality should be sampled at the monitoring stations at least monthly for the same parameters as the pre-construction monitoring.
1793	• Air Quality	• Air Quality	• Construction	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• During construction, a construction monitoring program is recommended as a mechanism to help mitigate and / or identify potential conditions that may lead to air quality impacts from construction related activities. An air monitoring station should be set up in the Marten Falls First Nation Community throughout the construction phase and into the operation phase. Air monitoring in the community should have transparency in data to allow sensitive individuals to be aware of levels and remain inside during times of high particulate concentrations.
1794	• Community Well-Being	• Community Well-Being	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• The road owner will need to engage with law enforcement to implement increased monitoring of traffic and reckless driving to reduce road safety incidents.

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1795	• Aquatic Environment	• Aquatic Environment	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• During operations, monitoring of water quality, sediment quality, and streamflow conditions at waterbodies that include greater sensitivity or implication to change from the standpoint of fish habitat, species at risk, channel stability, drainage pattern, or other environmental considerations. The specific monitoring locations will be determined during the permitting and design stages of the Project; however, it is expected that waterbodies of varying size (small, medium, large) would be captured, recognizing that this would allow the performance / effectiveness of mitigation and enhancement measures to be evaluated Monitoring of surface water quantity and quality parameters will include but not limited to water taking and discharge rates, pH, total suspended solids, turbidity, temperature, dissolved oxygen, biochemical oxygen demand, and other contaminants of concerns as required). Monitoring of total suspended solids and / or turbidity instrumented measurements and / or visual observations, as well as visual inspections to confirm the presence or absence of oil or sheen
1796	• Air Quality	• Air Quality	• Operations and Maintenance	• Ministry of the Environment, Conservation and Parks	• Not applicable.	• During operation, it is recommended that consideration of input gathered through other technical monitoring programs specific to potential air quality concerns (i.e., potential dust deposition on vegetation) is completed and evaluated for consideration of future mitigation or monitoring options. An air monitoring station should be set up in the Marten Falls First Nation Community throughout the construction phase and into the operation phase. Air monitoring in the community should have transparency in data to allow sensitive individuals to be aware of levels and remain inside during times of high particulate concentrations.