

TECHNICAL MEMORANDUM

TO:

**Impact Assessment Agency of Canada
Ontario Ministry of Environment, Conservation and Parks**

FROM

AtkinsRéalis

EMAIL

Craig.Wallace@atkinsrealis.com

REF

661910

DATE

31 March 2026

SUBJECT

Webequie Supply Road Project – Addendum to the Draft Environmental Assessment Report / Impact Statement (EAR/IS)

Responses to Comments on the Assessment of Effects on Vegetation and Wetlands

The attached report Addendum #2 to the Final Environmental Assessment Report / Impact Statement (EAR/IS) for the Webequie Supply Road Project (the Project, WSR). The purpose of the Addendum is to provide supplemental information in response to comments on Section 11: Assessment of Effects on Vegetation and Wetlands of the Webequie Supply Road (WSR) Environmental Assessment Report/Impact Statement (EAR/IS). More specifically, the addendum was prepared to address comments 147, 151 a), 152, 153, 163 b), 169, 174, 177, 178, 179, 180, 181, and 183 from the Ontario Ministry of Natural Resources (MNR). Details of these comments are presented in Appendix P2.M of the Record of Engagement and Consultation.

**Webequie Supply Road
Environmental Assessment
Report / Impact Statement**

March 31, 2026

AtkinsRéalis Ref: 661910

ADDENDUM 2: VEGETATION AND WETLANDS



Preface

The purpose of this report (Addendum #2) is to provide supplemental responses to address outstanding comments and items of concern received from the review of the Environmental Assessment Report / Impact Statement (EAR/IS) from:

- Ministry of Natural Resources (MNR): Comments 147, 151 a), 152, 153, 163 b), 169, 174, 177, 178, 179, 180, 181, and 183.

Details of these comments are presented in Appendix P2.M of the Record of Engagement and Consultation that support the Final EAR/IS.

This Addendum #2 includes the following:

1. Clarification of maps/figures illustrating vegetation and wetland features described in Section 11 of the Draft EAR/IS (for comment MNR-147).
2. An updated plant species inventory, and a revised table of Plant Species of Traditional Importance with associated habitat types (for comments MNR 151a and MNR-152).
3. Additional information about the presence of eskers in the study areas and discussion of their contribution to biodiversity, vegetation communities, landform representation within the ecoregions, and support of wildlife habitat (for comments MNR-153 and MNR-169).
4. An updated table summarizing the geophysical functional values of various wetland vegetation classes (MNR-163).
5. Quantification of effects of potential loss of vegetation classes as percentages of the study areas (for comment MNR-169).
6. Discussion of the feasibility of avoidance as a mitigation measure for vegetation classes with the potential for substantial size loss in the study areas (for comment MNR-174).
7. Elaboration on the effects of the Project on bogs and swamps, which comprise most of the wetland areas within the Project Footprint, Local Study Area (LSA) and Regional Study Area (RSA), with reference to literature describing responses of these wetland types to similar activities (for comment MNR-177).
8. Discussion of fire risk associated with potential increased access, or off-right-of-way camping related to the Project (for comment MNR-178).
9. Elaboration on the rationale for the characterization of effect magnitude on various vegetation classes (for comments MNR-179, MNR-180, MNR-181, and MNR-183).

The general format of the Addendum #2 Technical Report is a description of the reviewers' comment followed by the Project Team's response.



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Appendix

A: Potential SAR Vegetation

1 Updated Mapping

1.1 MNR-147

Comments, Rationale, and Proposed Action relating to Section 11/ Figures/General:

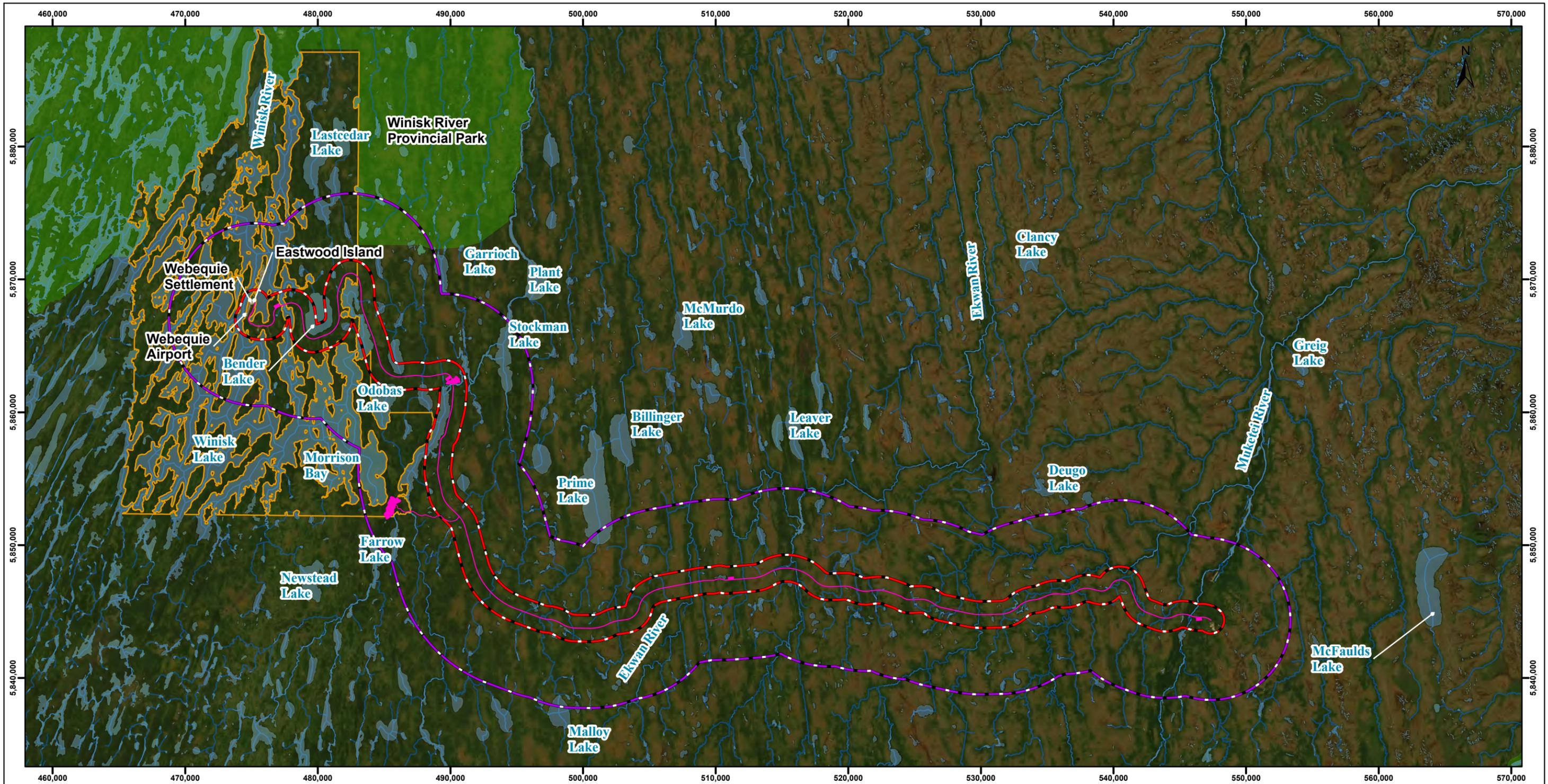
Several figures have a large volume of features displayed on the maps. In several cases, similar colours are used to distinguish between different features, which makes it hard to distinguish between values on the map.

MNR provided recommendations for several figures, including a request to subdivide Figure 11-3 into two separate maps.

Response:

MNR's recommendations were considered, and adjustments were made to mapping for the EAR/IS. The updated figures are included in this addendum.





Legend

- Project Footprint (Preferred Route, Camps, Aggregate Source Areas and Access Road)
- Local Study Area (LSA 1km from Centreline of Preferred Route)
- Regional Study Area (RSA 5km from either side of LSA Boundaries)
- Webeque First Nation Reserve
- Winisk River Provincial Park
- Waterbody
- Watercourse



NOTES

1. Coordinate System: NAD 1983 UTM Zone 18N.
2. Cadastral boundaries are for informational purposes only and should not be considered suitable for legal, engineering, or surveying purposes.
3. Topographic/landcover features obtained from CanVec v12.0 dataset, Natural Resources Canada Earth and Sciences Sector Centre for Topographic Information; and, Land Information Ontario (LIO) Warehouse Open Data (<https://geohub.lio.gov.on.ca/>), Ontario Ministry of Natural Resources and Forestry (OMNRF). Download Date: 2021-02-04

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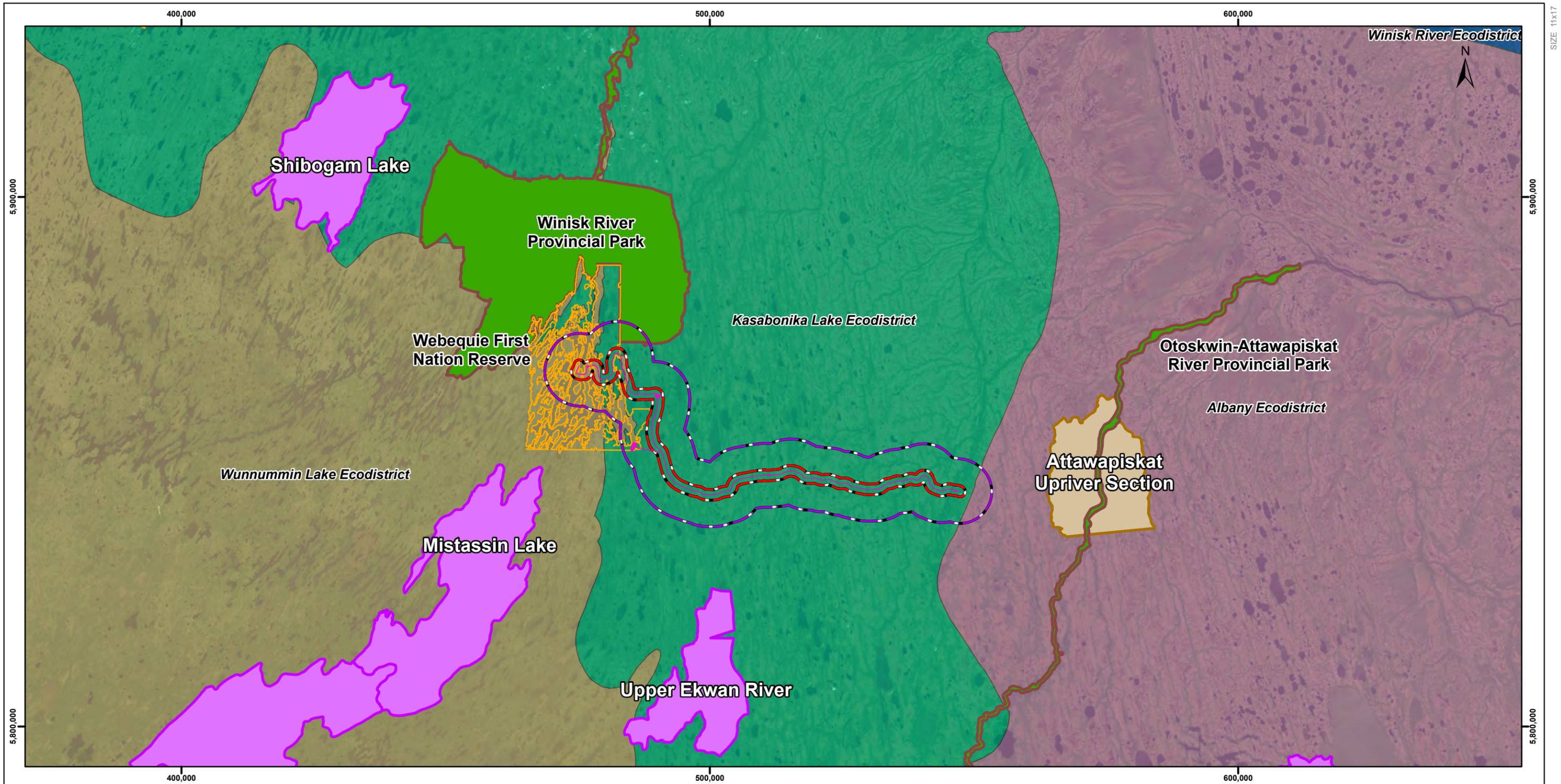
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Webeque Supply Road (WSR)

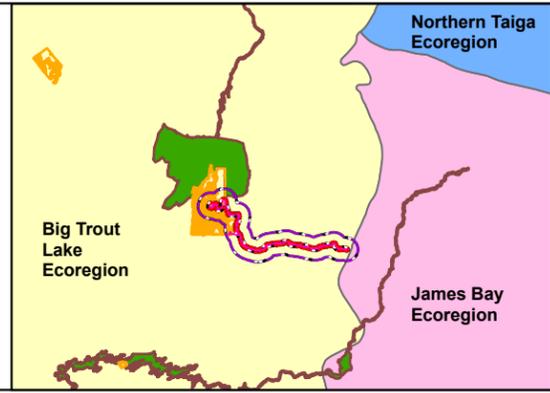
Vegetation Program Net Effects Study Areas

Figure Number: 11-1		REV: PA	
Client: Webeque First Nation	Project Number: 661910	Date: 1/27/2026	
DSC		DRN	CHK
		AD	KV
		APP	KV



Legend:

- Project Footprint (Preferred Route, Camps, Aggregate Source Areas and Access Road)
- Local Study Area (LSA 1km from Centreline of Preferred Route)
- Regional Study Area (RSA 5km from either side of LSA Boundaries)
- Webeque First Nation Reserve
- Provincial Park
- EcoDistrict**
- Albany
- Kasabonika Lake
- Winisk River
- Wunnummin Lake
- EcoRegion**
- Big Trout Lake
- James Bay
- Northern Taiga
- Areas of Natural and Scientific Interest (ANSI)**
- Candidate ANSI, Earth Science
- Candidate ANSI, Life Science



WSR
WEBEQUE
SUPPLY ROAD

NOTES

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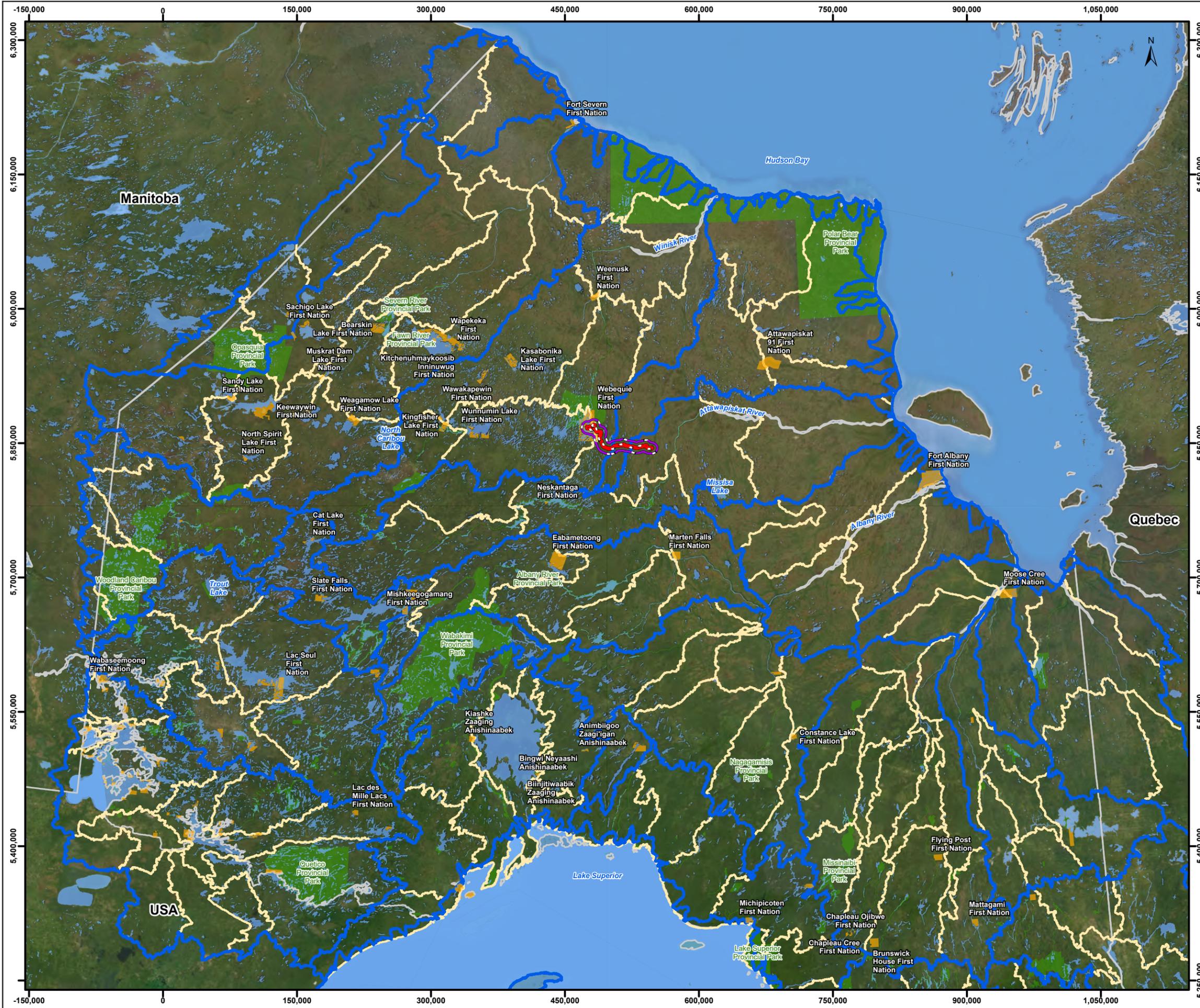
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0 25 50 Km

Webeque Supply Road (WSR)
 Project Area EcoRegion, EcoDistricts, and Designated Sensitivities

Figure Number:	11-2	REV:	PA
Client:	Webeque First Nation	Project Number:	661910
	DSC	Date:	1/30/2026
		DRN	CHK
		AD	JH
		APP	JH



Legend

- Local Study Area (LSA 1km from Centreline of Preferred Route)
- Regional Study Area (RSA 5km from either side of LSA Boundaries)
- First Nation Reserve
- Provincial Park
- Waterbody
- Provincial Boundaries
- Secondary Watershed
- Tertiary Watershed

Webeque Supply Road (WSR)

Secondary and Tertiary Watersheds

Figure Number:	11-3a	REV	PA
Client:	Webeque First Nation	Project Number:	661910
		Date:	1/28/2026
DSC		DRN	CHK
		AD	JH

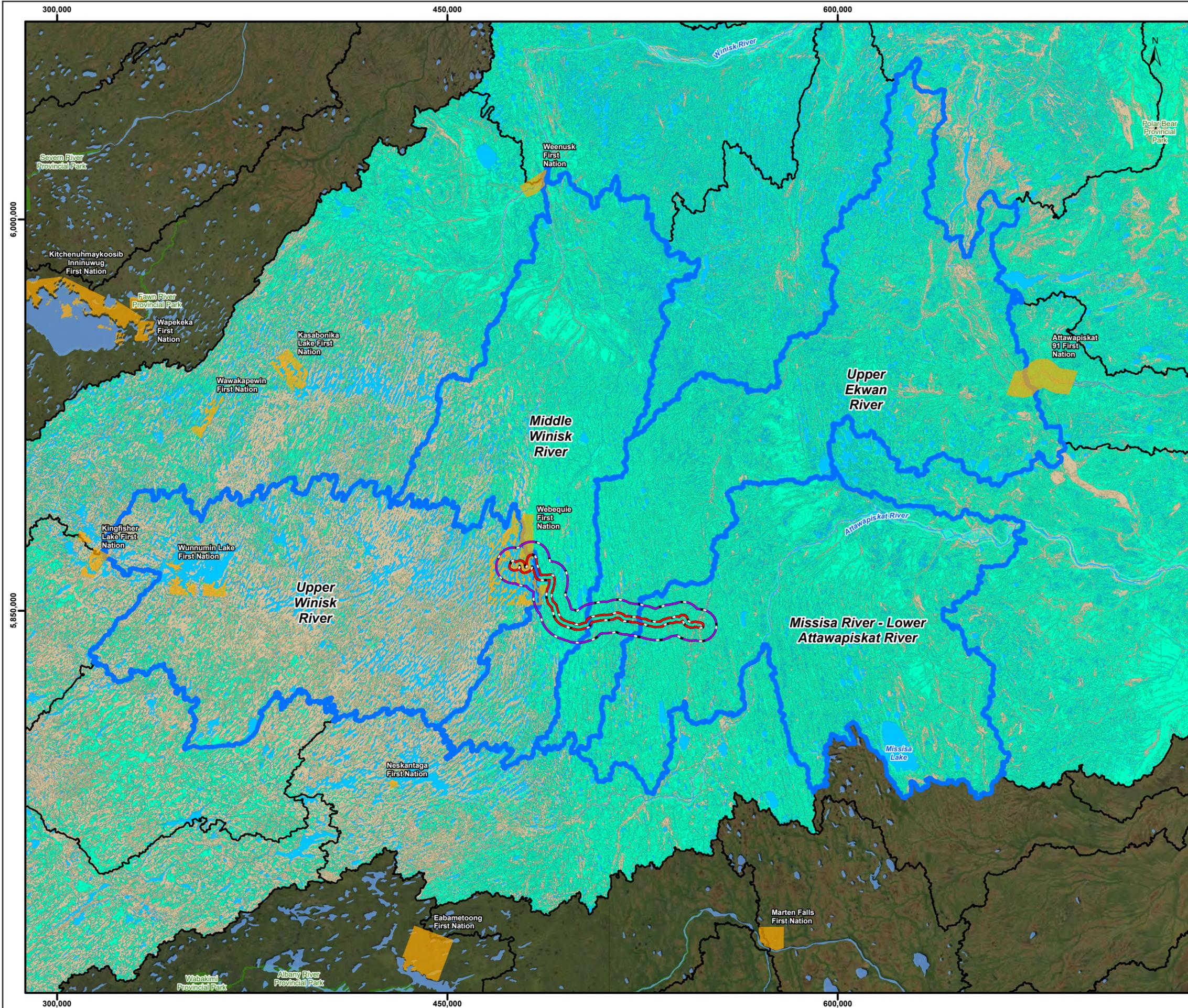
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Legend

- Local Study Area (LSA 1km from Centreline of Preferred Route)
- Regional Study Area (RSA 5km from either side of LSA Boundaries)
- First Nation Reserve
- Provincial Park
- Waterbody
- Provincial Boundaries
- Tertiary Watershed
- Tertiary Watershed Intersecting the Regional Study Area

Land Cover Type within Secondary Watersheds Intersecting Alternatives

- Wetland
- Open Water
- Other

Webeque Supply Road (WSR)

Tertiary Watersheds in Proximity to the Project

Figure Number:	11-3b	REV	PA
Client:	Webeque First Nation	Project Number:	661910
		Date:	2/2/2026
DSC		DRN	CHK
		AD	JH

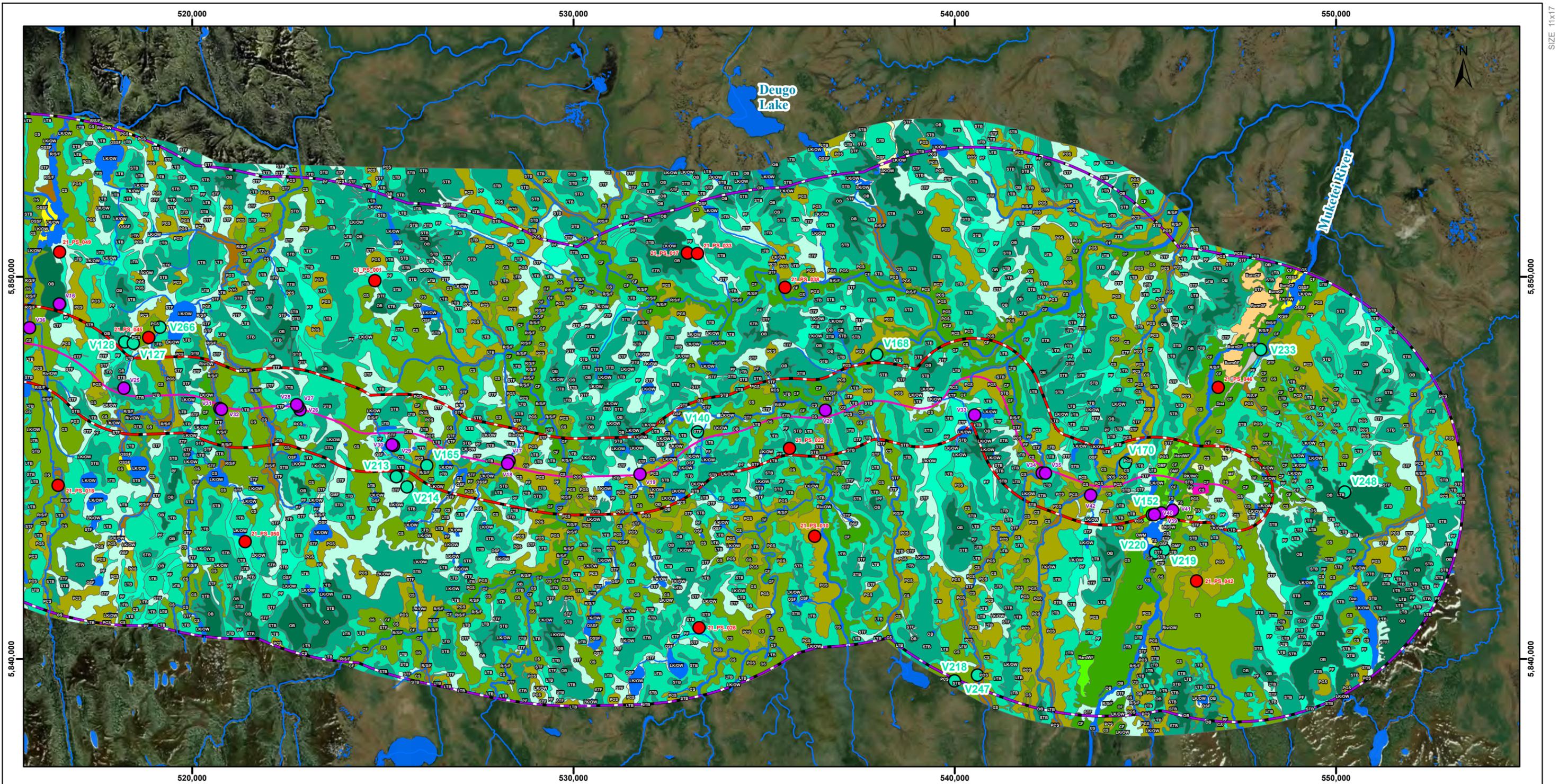


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Legend

- 2021 Sampling (Red circle)
- 2020 Sampling (Green circle)
- 2019 Sampling (Purple circle)
- Watercourse (Blue line)
- Project Footprint (Preferred Route, Camps, Aggregate Source Areas and Access Road) (Pink dashed line)
- Local Study Area (LSA 1km from Centreline of Preferred Route) (Red dashed line)
- Regional Study Area (RSA 5km from either side of LSA Boundaries) (Purple dashed line)
- Waterbody (Blue area)

Vegetation ELC Class

- CF, Conifer Forest
- PCF, Poor Conifer Forest
- MF, Mixed Forest
- HardWF, Hardwood Forest
- RCS, Organic Rich Conifer Swamp
- CS, Conifer Swamp
- PCS, Poor Conifer Swamp
- MS, Mixedwood Swamp
- TS, Thicket Swamp
- OSF, Open Shore Fen
- OSF/TS, Open Shore Fen/Thicket Swamp
- OSSF, Open Shore Shrub Fen
- MM, Meadow Marsh
- OWM, Open Water Marsh
- R/M, River/Floating Marsh
- R/S/F, River/Fen (Open/Sparse Treed/Thicket)Swamp/Marsh
- STF, Sparse Treed Fen
- OMF, Open Moderately Rich Fen
- PF, Organic Poor Fen
- LTB, Low Treed Bog
- STB, Sparse Treed Bog
- OB, Open Bog
- RK/INC, Rock Inclusion
- BurnCF, Burn-Conifer Forest
- BurnMW, Burn-Cut-Mixedwood
- BurnCS, Burn Conifer Swamp
- BurnShrub, Burn/Shrubland
- Burn/Cut, Burn-Cut
- BurnWL, Burn Low/Sparse Treed Bog/Fen
- Dist, Developed/Disturbed
- LK/OW, Lake/Open Water
- Riv/OW, River/Open Water
- Waterbody_50K

WSR WEBEQUIE SUPPLY ROAD

NOTES

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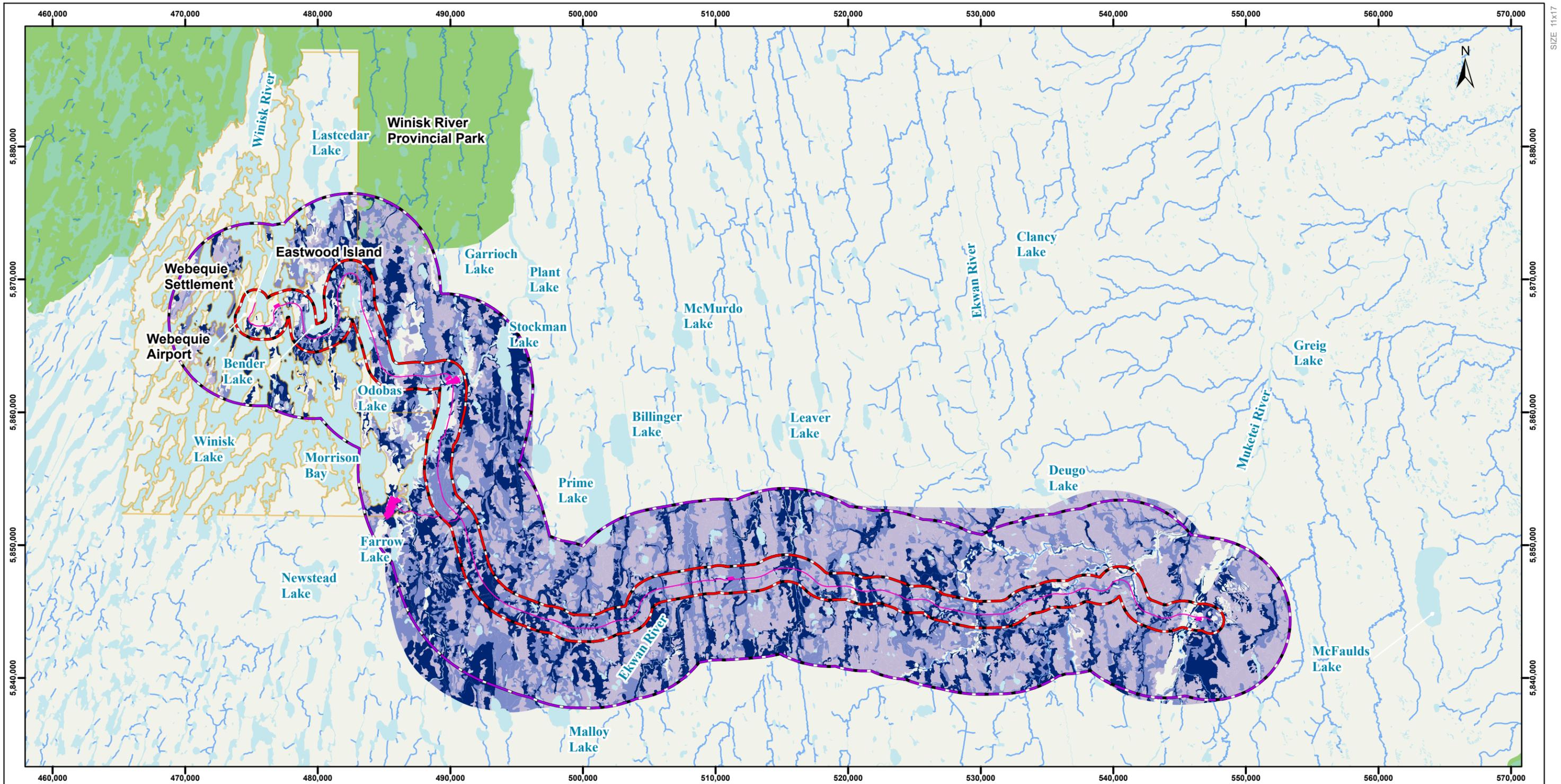
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km

Webeque Supply Road (WSR)

2019, 2020, and 2021

Vegetation Classification and Survey Locations

Figure Number: 11-6		REV: PA	
Client: Webeque First Nation	Project Number: 661910	Date: 1/28/2026	
DSC		DRN	CHK
		AD	JH
		APP	JH



Legend

- Project Footprint (Preferred Route, Camps, Aggregate Source Areas and Access Road)
- Local Study Area (LSA 1km from Centreline of Preferred Route)
- Regional Study Area (RSA 5km from either side of LSA Boundaries)
- Webeque First Nation Reserve
- Winisk River Provincial Park
- Waterbody
- Watercourse

Simpson's Inverse Dominance

- 3.670000 - 4.144000 (Low)
- 4.144001 - 4.549000 (Medium)
- 4.549001 - 5.661000 (High)



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Webeque Supply Road (WSR)

Biodiversity Values Across Study Area

Figure Number: 11-7		REV: PA	
Client: Webeque First Nation	Project Number: 661910	Date: 1/28/2026	
DSC		DRN	CHK
		AD	JH
			APP
			JH

2 Species List and Classification Methodology

2.1 MNR-151a)

Comments, Rationale, and Proposed Action relating to page 11-35/ Section 11.2.1.3.2

With regards to Section 11.2.1.3.2, it states that, “Prior to conducting field surveys, a list of potential plant SAR and plant SOCC present in the study areas was compiled to inform the fieldwork.”

Please provide a reference within this section for where this list can be found. If possible, it would be helpful to provide an updated list to reflect species presence, species absence, and additional species (not on the pre-field work list). Similar updates can also be considered for Section 11.2.2.4.

Response:

Section 9.2.5 of the Existing Conditions report describes the methodology used to compile the list of the plant species present in each vegetation unit. The resulting vegetation species list was included as **Appendix 9-B**, organized by year of observation.

A total of 101 sites (plots) were surveyed during the 2019, 2020 and 2021 Vegetation and Wetlands field programs. Field surveys were conducted in alignment with the methodologies outlined in the *Ontario Parks Inventory and Monitoring Program Guidelines* (Draft version 1.4, 2012). The site identifiers and Boreal Ecosite Codes for these 101 sites are described in **Section 9.3.4**, with the corresponding survey locations being illustrated in **Figures 9.13** through **9.20**.

Appendix 9-B included species recorded by field staff participating in the Vegetation and Wetlands field programs, along with species reported by staff conducting other target surveys (i.e., incidentally encountered during breeding birds surveys, deployment of ARUs, mammal tracking, etc.). As such, incidental observations should be interpreted with caution, as they were not obtained through systematic vegetation surveys or subject to the same level of taxonomic verification.

Please refer to **Table 2-1** in which the vegetation list been reorganized and updated to differentiate:

- a. Species detected as part of the Plants and Wetlands field program from other reports; and
- b. Plants that had a species-level identification from those that were identified to genus or family.

With respect to potential plant SAR and SOCC within the study areas, **Section 9.2.5** of the Natural Environment Existing Conditions Report also outlines the methodology used to develop a candidate list prior to the commencement of field surveys. **Section 9.3.6** identifies species that were determined to be within the range of the RSA but not observed during the Vegetation and Wetlands field program (refer to Appendix A). These species, which have provincial conservation status rankings ranging from S2 to S4, along with ranked SU species, are:

- McCalla’s Willow (*Salix maccallana*);
- Quill’s Spikerush (*Eleocharis nitida*);
- *Lathagrium undulatum* var. *granulosum*;



- *Epebe hispidula*;
- *Chaenothecopsis marcineae*; and
- *Epilichen scabrosus*.

Additionally, two (2) moss species with provincial conservation status rankings of S1 and S3, respectively, were documented during field surveys that had not been anticipated based on the background review:

- Yellow Moosedung Moss (*Splachnum luteum*); and
- Cruet Collar Moss (*Splachnum ampellaceum*).

Table 2-1: Species Reported During the 2019, 2020 and 2021 WSR Field Programs

Scientific Name	Common Name	Species-Level Identification (Yes/No)	Observation Type
<i>Abies balsamea</i>	Balsam Fir	Yes	Vegetation plot, Other
<i>Actaea rubra</i>	Red Baneberry	Yes	Vegetation plot, Other
<i>Alnus alnobetula ssp. crispa</i>	Green Alder	Yes	Vegetation plot, Other
<i>Alnus incana ssp. rugosa</i>	Speckled Alder	Yes	Vegetation plot, Other
<i>Amelanchier alnifolia</i>	Saskatoon	Yes	Vegetation plot, Other
<i>Amelanchier bartramiana</i>	Bartram's Serviceberry	Yes	Vegetation plot, Other
<i>Amelanchier sanguinea</i>	Round-leaved Serviceberry	Yes	Vegetation plot, Other
<i>Andromeda polifolia</i>	Bog Rosemary	Yes	Vegetation plot, Other
<i>Aralia nudicaulis</i>	Wild Sarsaparilla	Yes	Vegetation plot, Other
<i>Arctoparmelia centrifuga</i>	Concentric Ring Lichen	Yes	Vegetation plot, Other
<i>Arctostaphylos uva-ursi</i>	Bearberry	Yes	Vegetation plot, Other
<i>Arethusa bulbosa</i>	Dragon's-mouth	Yes	Vegetation plot, Other
<i>Aulacomnium palustre</i>	Ribbed Bog Moss	Yes	Vegetation plot, Other
<i>Betula papyrifera</i>	White Birch	Yes	Vegetation plot, Other
<i>Betula pumila</i>	Dwarf Birch	Yes	Vegetation plot, Other
<i>Calamagrostis canadensis</i>	Bluejoint Reedgrass	Yes	Vegetation plot, Other
<i>Calla palustris</i>	Wild Calla	Yes	Vegetation plot, Other
<i>Caltha palustris</i>	Marsh Marigold	Yes	Vegetation plot, Other
<i>Campylium stellatum</i>	Yellow Starry Fen Moss	Yes	Vegetation plot, Other
<i>Carex aquatilis</i>	Water Sedge	Yes	Vegetation plot, Other
<i>Carex castanea</i>	Chestnut Sedge	Yes	Vegetation plot, Other
<i>Carex disperma</i>	Two-seeded Sedge	Yes	Vegetation plot, Other
<i>Carex echinata</i>	Northern Star Sedge	Yes	Vegetation plot, Other
<i>Carex gynocrates</i>	Northern Bog Sedge	Yes	Vegetation plot, Other
<i>Carex interior</i>	Inland Sedge	Yes	Vegetation plot, Other
<i>Carex leptalea</i>	Bristle-stalked Sedge	Yes	Vegetation plot, Other
<i>Carex limosa</i>	Mud Sedge	Yes	Vegetation plot, Other
<i>Carex magellanica</i>	Boreal Bog Sedge	Yes	Vegetation plot, Other
<i>Carex oligosperma</i>	Few-seeded Sedge	Yes	Vegetation plot, Other



Scientific Name	Common Name	Species-Level Identification (Yes/No)	Observation Type
<i>Carex pauciflora</i>	Few-flowered Sedge	Yes	Vegetation plot, Other
<i>Carex rostrata</i>	Swollen Beaked Sedge	Yes	Vegetation plot, Other
<i>Carex stricta</i>	Tussock Sedge	Yes	Vegetation plot, Other
<i>Carex trisperma</i>	Three-seeded Sedge	Yes	Vegetation plot, Other
<i>Carex utriculata</i>	Northern Beaked Sedge	Yes	Vegetation plot, Other
<i>Carex vaginata</i>	Sheathed Sedge	Yes	Vegetation plot, Other
<i>Chamaedaphne calyculata</i>	Leatherleaf	Yes	Vegetation plot, Other
<i>Chamaenerion angustifolium</i>	Fireweed	Yes	Vegetation plot, Other
<i>Chimaphila umbellata</i>	Pipsissewa	Yes	Vegetation plot, Other
<i>Cicuta bulbifera</i>	Bulb-bearing Water-hemlock	Yes	Vegetation plot, Other
<i>Cladonia cristatella</i>	British Soldier Lichen	Yes	Vegetation plot, Other
<i>Cladonia fimbriata</i>	Trumpet Lichen	Yes	Vegetation plot, Other
<i>Cladonia furcata</i>	Many-forked Cladonia	Yes	Vegetation plot, Other
<i>Cladonia pleurota</i>	Red-fruited Pixie-cup	Yes	Vegetation plot, Other
<i>Cladonia rangifera</i>	Reindeer Lichen	Yes	Vegetation plot, Other
<i>Cladonia stellata</i>	Star-tipped Coral Lichen	Yes	Vegetation plot, Other
<i>Cladonia sulphurina</i>	Greater Sulphur-cup Lichen	Yes	Vegetation plot, Other
<i>Comarum palustre</i>	Marsh Cinquefoil	Yes	Vegetation plot, Other
<i>Conocephalum salebrosum</i>	Snakewort	Yes	Vegetation plot, Other
<i>Coptis trifolia</i>	Goldthread	Yes	Vegetation plot, Other
<i>Corallorhiza trifida</i>	Early Coralroot	Yes	Vegetation plot, Other
<i>Cornus canadensis</i>	Bunchberry	Yes	Vegetation plot, Other
<i>Cornus sericea</i>	Red-osier Dogwood	Yes	Vegetation plot, Other
<i>Dasiphora fruticosa</i>	Shrubby Cinquefoil	Yes	Vegetation plot, Other
<i>Dendrolycopodium dendroideum</i>	Round-branched Tree-clubmoss	Yes	Vegetation plot, Other
<i>Diphasiastrum complanatum</i>	Northern Ground-cedar	Yes	Vegetation plot, Other
<i>Drosera anglica</i>	Great Sundew	Yes	Vegetation plot, Other
<i>Drosera rotundifolia</i>	Round-leaved Sundew	Yes	Vegetation plot, Other
<i>Dryopteris carthusiana</i>	Spinulose Wood Fern	Yes	Vegetation plot, Other
<i>Eleocharis palustris</i>	Common Spikerush	Yes	Vegetation plot, Other
<i>Empetrum nigrum</i>	Black Crowberry	Yes	Vegetation plot, Other
<i>Endotropis alnifolia</i>	Alder-leaved Buckthorn	Yes	Vegetation plot, Other
<i>Equisetum arvense</i>	Field Horsetail	Yes	Vegetation plot, Other
<i>Equisetum fluviatile</i>	Water Horsetail	Yes	Vegetation plot, Other
<i>Equisetum palustre</i>	Marsh Horsetail	Yes	Vegetation plot, Other



Scientific Name	Common Name	Species-Level Identification (Yes/No)	Observation Type
<i>Equisetum scirpoides</i>	Dwarf Scouring Rush	Yes	Vegetation plot, Other
<i>Equisetum sylvaticum</i>	Woodland Horsetail	Yes	Vegetation plot, Other
<i>Eriophorum angustifolium</i>	Narrow-leaved Cottongrass	Yes	Vegetation plot, Other
<i>Eriophorum gracile</i>	Slender Cottongrass	Yes	Vegetation plot, Other
<i>Eriophorum vaginatum</i>	Tussock Cottongrass	Yes	Vegetation plot, Other
<i>Eriophorum virginicum</i>	Tawny Cottongrass	Yes	Vegetation plot, Other
<i>Eriophorum viridicarinatum</i>	Green-keeled Cottongrass	Yes	Vegetation plot, Other
<i>Evernia mesomorpha</i>	Boreal Oakmoss Lichen	Yes	Vegetation plot, Other
<i>Fomitopsis mounceae</i>	Northern Red Belt	Yes	Vegetation plot, Other
<i>Fragaria virginiana</i>	Smooth Wild Strawberry	Yes	Vegetation plot, Other
<i>Galium labradoricum</i>	Bog Bedstraw	Yes	Vegetation plot, Other
<i>Galium palustre</i>	Marsh Bedstraw	Yes	Vegetation plot, Other
<i>Galium triflorum</i>	Three-flowered Bedstraw	Yes	Vegetation plot, Other
<i>Gaultheria hispidula</i>	Creeping Snowberry	Yes	Vegetation plot, Other
<i>Geocaulon lividum</i>	Northern Comandra	Yes	Vegetation plot, Other
<i>Glyceria striata</i>	Fowl Mannagrass	Yes	Vegetation plot, Other
<i>Goodyera repens</i>	Dwarf Rattlesnake-plantain	Yes	Vegetation plot, Other
<i>Hylocomium splendens</i>	Stairstep Moss	Yes	Vegetation plot, Other
<i>Iris versicolor</i>	Harlequin Blue Flag	Yes	Vegetation plot, Other
<i>Juniperus communis</i>	American Common Juniper	Yes	Vegetation plot, Other
<i>Juniperus horizontalis</i>	Creeping Juniper	Yes	Vegetation plot, Other
<i>Kalmia angustifolia</i>	Sheep Laurel	Yes	Vegetation plot, Other
<i>Kalmia polifolia</i>	Bog Laurel	Yes	Vegetation plot, Other
<i>Larix laricina</i>	Tamarack	Yes	Vegetation plot, Other
<i>Lathyrus ochroleucus</i>	Cream-coloured Vetchling	Yes	Vegetation plot, Other
<i>Linnaea borealis</i>	Twinflower	Yes	Vegetation plot, Other
<i>Lonicera dioica</i>	Glaucous Honeysuckle	Yes	Vegetation plot, Other
<i>Lonicera involucrata</i>	Bracted Honeysuckle	Yes	Vegetation plot, Other
<i>Lonicera oblongifolia</i>	Swamp Fly-honeysuckle	Yes	Vegetation plot, Other
<i>Lonicera villosa</i>	Mountain Fly-honeysuckle	Yes	Vegetation plot, Other
<i>Lycopus uniflorus</i>	Northern Water-horehound	Yes	Vegetation plot, Other
<i>Lysimachia borealis</i>	Northern Starflower	Yes	Vegetation plot, Other
<i>Lysimachia terrestris</i>	Swamp Candles	Yes	Vegetation plot, Other
<i>Maianthemum canadense</i>	Canada Mayflower	Yes	Vegetation plot, Other
<i>Maianthemum trifolium</i>	Three-leaved False Solomon's Seal	Yes	Vegetation plot, Other
<i>Mentha canadensis</i>	American Corn Mint	Yes	Vegetation plot, Other



Scientific Name	Common Name	Species-Level Identification (Yes/No)	Observation Type
<i>Menyanthes trifoliata</i>	Bogbean	Yes	Vegetation plot, Other
<i>Mertensia paniculata</i>	Tall Bluebells	Yes	Vegetation plot, Other
<i>Mitella nuda</i>	Naked Mitrewort	Yes	Vegetation plot, Other
<i>Myrica gale</i>	Sweet gale	Yes	Vegetation plot, Other
<i>Neottia cordata</i>	Heart-leaved Twayblade	Yes	Vegetation plot, Other
<i>Nuphar variegata</i>	Variegated Pond-lily	Yes	Vegetation plot, Other
<i>Orthilia secunda</i>	One-sided Wintergreen	Yes	Vegetation plot, Other
<i>Parnassia palustris</i>	Marsh Grass-of-Parnassus	Yes	Vegetation plot, Other
<i>Peltigera aphthosa</i>	Freckled Pelt Lichen	Yes	Vegetation plot, Other
<i>Peltigera canina</i>	Dog Pelt Lichen	Yes	Vegetation plot, Other
<i>Petasites frigidus</i> var. <i>palmatius</i>	Palmate Coltsfoot	Yes	Vegetation plot, Other
<i>Picea glauca</i>	White Spruce	Yes	Vegetation plot, Other
<i>Picea mariana</i>	Black Spruce	Yes	Vegetation plot, Other
<i>Pinus banksiana</i>	Jack Pine	Yes	Vegetation plot, Other
<i>Platanthera dilatata</i>	Tall White Bog Orchid	Yes	Vegetation plot, Other
<i>Platanthera huronensis</i>	Lake Huron Green Orchid	Yes	Vegetation plot, Other
<i>Platanthera obtusata</i>	Blunt-leaved Rein Orchid	Yes	Vegetation plot, Other
<i>Platanthera orbiculata</i>	Lesser Round-leaved Orchid	Yes	Vegetation plot, Other
<i>Pleurozium schreberi</i>	Red-stemmed Feather Moss	Yes	Vegetation plot, Other
<i>Polytrichum juniperinum</i>	Juniper Haircap Moss	Yes	Vegetation plot, Other
<i>Populus balsamifera</i>	Balsam Poplar	Yes	Vegetation plot, Other
<i>Populus tremuloides</i>	Trembling Aspen	Yes	Vegetation plot, Other
<i>Primula mistassinica</i>	Mistassini Primrose	Yes	Vegetation plot, Other
<i>Prunus pensylvanica</i>	Pin Cherry	Yes	Vegetation plot, Other
<i>Ptilium crista-castrensis</i>	Ostrich Plume Moss	Yes	Vegetation plot, Other
<i>Pyrola asarifolia</i>	Pink Pyrola	Yes	Vegetation plot, Other
<i>Pyrola chlorantha</i>	Green Pyrola	Yes	Vegetation plot, Other
<i>Rhododendron groenlandicum</i>	Labrador Tea	Yes	Vegetation plot, Other
<i>Rhynchospora alba</i>	White Beakrush	Yes	Vegetation plot, Other
<i>Rhytidiadelphus triquetrus</i>	Big Shaggy Moss	Yes	Vegetation plot, Other
<i>Ribes glandulosa</i>	Skunk Currant	Yes	Vegetation plot, Other
<i>Ribes lacustre</i>	Bristly Black Currant	Yes	Vegetation plot, Other
<i>Ribes triste</i>	Swamp Red Currant	Yes	Vegetation plot, Other
<i>Rosa acicularis</i>	Prickly Rose	Yes	Vegetation plot, Other



Scientific Name	Common Name	Species-Level Identification (Yes/No)	Observation Type
<i>Rosa blanda</i>	Smooth Rose	Yes	Vegetation plot, Other
<i>Rubus arcticus</i> ssp. <i>acaulis</i>	Stemless Raspberry	Yes	Vegetation plot, Other
<i>Rubus chamaemorus</i>	Cloudberry	Yes	Vegetation plot, Other
<i>Rubus idaeus</i> ssp. <i>strigosus</i>	North American Red Raspberry	Yes	Vegetation plot, Other
<i>Rubus pubescens</i>	Dwarf Raspberry	Yes	Vegetation plot, Other
<i>Salix bebbiana</i>	Bebb's Willow	Yes	Vegetation plot, Other
<i>Salix candida</i>	Hoary Willow	Yes	Vegetation plot, Other
<i>Salix discolor</i>	Pussy Willow	Yes	Vegetation plot, Other
<i>Salix humilis</i>	Upland Willow	Yes	Vegetation plot, Other
<i>Salix lucida</i>	Shining Willow	Yes	Vegetation plot, Other
<i>Salix myrtilifolia</i>	Low Blueberry Willow	Yes	Vegetation plot, Other
<i>Salix pedicellaris</i>	Bog Willow	Yes	Vegetation plot, Other
<i>Salix pellita</i>	Satiny Willow	Yes	Vegetation plot, Other
<i>Salix planifolia</i>	Tea-leaved Willow	Yes	Vegetation plot, Other
<i>Salix pyrifolia</i>	Balsam Willow	Yes	Vegetation plot, Other
<i>Sarracenia purpurea</i>	Northern Pitcher Plant	Yes	Vegetation plot, Other
<i>Scheuchzeria palustris</i>	Podgrass	Yes	Vegetation plot, Other
<i>Scutellaria galericulata</i>	Marsh Skullcap	Yes	Vegetation plot, Other
<i>Solidago uliginosa</i>	Bog Goldenrod	Yes	Vegetation plot, Other
<i>Sorbus decora</i>	Showy Mountain-ash	Yes	Vegetation plot, Other
<i>Spinulum annotinum</i>	Stiff Clubmoss	Yes	Vegetation plot, Other
<i>Symphotrichum ciliolatum</i>	Lindley's Aster	Yes	Vegetation plot, Other
<i>Thalictrum venulosum</i>	Veiny Meadow-rue	Yes	Vegetation plot, Other
<i>Thuja occidentalis</i>	Eastern White Cedar	Yes	Vegetation plot, Other
<i>Triantha glutinosa</i>	Sticky False Asphodel	Yes	Vegetation plot, Other
<i>Trichophorum alpinum</i>	Alpine Clubrush	Yes	Vegetation plot, Other
<i>Trichophorum cespitosum</i>	Tufted Clubrush	Yes	Vegetation plot, Other
<i>Triglochin maritima</i>	Seaside Arrowgrass	Yes	Vegetation plot, Other
<i>Utricularia intermedia</i>	Flat-leaved Bladderwort	Yes	Vegetation plot, Other
<i>Vaccinium myrtilloides</i>	Velvet-leaved Blueberry	Yes	Vegetation plot, Other
<i>Vaccinium oxycoccos</i>	Small Cranberry	Yes	Vegetation plot, Other
<i>Vaccinium uliginosum</i>	Bog Bilberry	Yes	Vegetation plot, Other
<i>Vaccinium vitis-idaea</i>	Mountain Cranberry	Yes	Vegetation plot, Other
<i>Viburnum edule</i>	Squashberry	Yes	Vegetation plot, Other
<i>Viola renifolia</i>	Kidney-leaved Violet	Yes	Vegetation plot, Other
<i>Viola rotundifolia</i>	Eastern Round-Leaved Violet	Yes	Vegetation plot, Other



Scientific Name	Common Name	Species-Level Identification (Yes/No)	Observation Type
<i>Actaea rubra neglecta</i>	White-fruited Red Baneberry	Yes	Vegetation plot
<i>Agrostis scabra</i>	Rough Bentgrass	Yes	Vegetation plot
<i>Brasenia schreberi</i>	Watershield	Yes	Vegetation plot
<i>Campanula aparinoides</i>	Marsh Bellflower	Yes	Vegetation plot
<i>Canadanthus modestus</i>	Great Northern Aster	Yes	Vegetation plot
<i>Capnoides sempervirens</i>	Rock Harlequin	Yes	Vegetation plot
<i>Carex bebbi</i>	Bebb's Sedge	Yes	Vegetation plot
<i>Carex brunnescens</i>	Brownish Sedge	Yes	Vegetation plot
<i>Carex canescens</i>	Hoary Sedge	Yes	Vegetation plot
<i>Carex chordorrhiza</i>	Creeping Sedge	Yes	Vegetation plot
<i>Carex cryptolepis</i>	Northeastern Sedge	Yes	Vegetation plot
<i>Carex deflexa</i>	Bent Northern Sedge	Yes	Vegetation plot
<i>Carex diandra</i>	Lesser Panicked Sedge	Yes	Vegetation plot
<i>Carex exilis</i>	Meagre Sedge	Yes	Vegetation plot
<i>Carex lasiocarpa</i>	Woolly-fruited Sedge	Yes	Vegetation plot
<i>Carex sterilis</i>	Sterile Sedge	Yes	Vegetation plot
<i>Carex tenuiflora</i>	Sparse-flowered Sedge	Yes	Vegetation plot
<i>Clavaria zollingeri</i>	Violet Coral Fungus	Yes	Vegetation plot
<i>Diervilla lonicera</i>	Northern Bush-honeysuckle	Yes	Vegetation plot
<i>Drepanocladus uncinatus</i>	Sickle-leaved Hook-Moss	Yes	Vegetation plot
<i>Drosera intermedia</i>	Spoonleaf Sundew	Yes	Vegetation plot
<i>Eleocharis acicularis</i>	Needle Spikerush	Yes	Vegetation plot
<i>Epilobium leptophyllum</i>	Narrow-leaved Willowherb	Yes	Vegetation plot
<i>Equisetum pratense</i>	Meadow Horsetail	Yes	Vegetation plot
<i>Erigeron hyssopifolius</i>	Hyssop-leaved Fleabane	Yes	Vegetation plot
<i>Eriophorum chamissonis</i>	Russet Cottongrass	Yes	Vegetation plot
<i>Eriophorum tenellum</i>	Rough Cottongrass	Yes	Vegetation plot
<i>Eutrochium maculatum</i>	Leafy Spotted Joe Pye Weed	Yes	Vegetation plot
<i>Galium boreale</i>	Northern Bedstraw	Yes	Vegetation plot
<i>Gentiana rubricaulis</i>	Purple-stemmed Gentian	Yes	Vegetation plot
<i>Geum macrophyllum</i>	Large-leaved Avens	Yes	Vegetation plot
<i>Glyceria borealis</i>	Boreal Mannagrass	Yes	Vegetation plot
<i>Gymnocarpium dryopteris</i>	Common Oak Fern	Yes	Vegetation plot
<i>Icmadophila ericetorum</i>	Candy Lichen	Yes	Vegetation plot
<i>Juncus balticus</i>	Baltic Rush	Yes	Vegetation plot



Scientific Name	Common Name	Species-Level Identification (Yes/No)	Observation Type
<i>Juncus stygius</i>	Moor Rush	Yes	Vegetation plot
<i>Liparis loeselii</i>	Loesel's Twayblade	Yes	Vegetation plot
<i>Lobelia kalmii</i>	Bog Lobelia	Yes	Vegetation plot
<i>Maianthemum stellatum</i>	Star-flowered False Solomon's Seal	Yes	Vegetation plot
<i>Melampyrum lineare</i>	Narrow-leaved Cow-wheat	Yes	Vegetation plot
<i>Mentha aquatica</i>	Water Mint	Yes	Vegetation plot
<i>Moneses uniflora</i>	One-flowered Wintergreen	Yes	Vegetation plot
<i>Muhlenbergia glomerata</i>	Spike Muhly	Yes	Vegetation plot
<i>Nymphaea leibergerii</i>	Dwarf Waterlily	Yes	Vegetation plot
<i>Nymphaea odorata</i>	White Waterlily	Yes	Vegetation plot
<i>Phalaris arundinacea</i>	Reed Canary Grass	Yes	Vegetation plot
<i>Plagiochila porelloides</i>	Lesser Featherwort	Yes	Vegetation plot
<i>Platanthera aquilonis</i>	North Wind Bog Orchid	Yes	Vegetation plot
<i>Ptilidium pulcherrimum</i>	Tree Fringewort	Yes	Vegetation plot
<i>Ranunculus aquatilis</i>	White Water Crowfoot	Yes	Vegetation plot
<i>Ranunculus lapponicus</i>	Lapland Buttercup	Yes	Vegetation plot
<i>Salix eriocephala</i>	Cottony Willow	Yes	Vegetation plot
<i>Salix petiolaris</i>	Slender Willow	Yes	Vegetation plot
<i>Salix serrisima</i>	Autumn Willow	Yes	Vegetation plot
<i>Scirpus cyperinus</i>	Woolgrass	Yes	Vegetation plot
<i>Solidago hispida</i>	Hairy Goldenrod	Yes	Vegetation plot
<i>Sparganium emersum</i>	Green-fruited Burreed	Yes	Vegetation plot
<i>Sparganium natans</i>	Small Burreed	Yes	Vegetation plot
<i>Spiranthes romanzoffiana</i>	Hooded Ladies'-tresses	Yes	Vegetation plot
<i>Splachnum luteum</i>	Yellow Moosedung Moose	Yes	Vegetation plot
<i>Symphyotrichum boreale</i>	Northern Bog Aster	Yes	Vegetation plot
<i>Tomentypnum nitens</i>	Golden Fuzzy Fen Moss	Yes	Vegetation plot
<i>Triglochin palustris</i>	Marsh Arrowgrass	Yes	Vegetation plot
<i>Typha latifolia</i>	Broad-leaved Cattail	Yes	Vegetation plot
<i>Utricularia cornuta</i>	Horned Bladderwort	Yes	Vegetation plot
<i>Viola macloskeyi</i>	Northern White Violet	Yes	Vegetation plot
<i>Achillea borealis</i>	Woolly Yarrow	Yes	Other (Incidental)
<i>Acorus americanus</i>	American Sweetflag	Yes	Other (Incidental)
<i>Amelanchier humilis</i>	Running Serviceberry	Yes	Other (Incidental)
<i>Anaphalis margaritacea</i>	Pearly Everlasting	Yes	Other (Incidental)
<i>Apocynum cannabinum</i>	Hemp Dogbane	Yes	Other (Incidental)



Scientific Name	Common Name	Species-Level Identification (Yes/No)	Observation Type
<i>Athyrium felix-femina</i> var. <i>angustum</i>	Northeastern Lady Fern	Yes	Other (Incidental)
<i>Botrypus virginianus</i>	Rattlesnake Fern	Yes	Other (Incidental)
<i>Bromus ciliatus</i>	Fringed Brome	Yes	Other (Incidental)
<i>Calypso bulbosa</i>	Fairy Slipper	Yes	Other (Incidental)
<i>Carex aurea</i>	Golden Sedge	Yes	Other (Incidental)
<i>Chaenorhinum minus</i>	Dwarf Snapdragon	Yes	Other (Incidental)
<i>Cladium mariscoides</i>	Twigrush	Yes	Other (Incidental)
<i>Cladonia macilenta</i>	Lipstick Powderhorn	Yes	Other (Incidental)
<i>Cornus rugosa</i>	Round-leaved Dogwood	Yes	Other (Incidental)
<i>Corylus cornuta</i>	Beaked Hazelnut	Yes	Other (Incidental)
<i>Dicranum polysetum</i>	Wavy-leaved Broom Moss	Yes	Other (Incidental)
<i>Dryopteris cristata</i>	Crested Shield Fern	Yes	Other (Incidental)
<i>Euphrasia hudsoniana</i>	Hudson Bay Eyebright	Yes	Other (Incidental)
<i>Fragaria vesca</i> ssp. <i>americana</i>	American Woodland Strawberry	Yes	Other (Incidental)
<i>Gentianella amarella</i>	Autumn Dwarf Gentian	Yes	Other (Incidental)
<i>Geranium bicknellii</i>	Bicknell's Geranium	Yes	Other (Incidental)
<i>Geum laciniatum</i>	Cut-leaved Avens	Yes	Other (Incidental)
<i>Hippuris vulgaris</i>	Common Mare's Tail	Yes	Other (Incidental)
<i>Hordeum jubatum</i>	Foxtail Barley	Yes	Other (Incidental)
<i>Juncus tenuis</i>	Path Rush	Yes	Other (Incidental)
<i>Leucanthemum vulgare</i>	Oxeye Daisy	Yes	Other (Incidental)
<i>Lysimachia thysiflora</i>	Tufted Loosestrife	Yes	Other (Incidental)
<i>Matricaria discoidea</i>	Pineappleweed	Yes	Other (Incidental)
<i>Melilotus albus</i>	White Sweet Clover	Yes	Other (Incidental)
<i>Monotropa uniflora</i>	Ghost Pipe	Yes	Other (Incidental)
<i>Pedicularis parviflora</i>	Small-flower Lousewort	Yes	Other (Incidental)
<i>Peltigera polydactylon</i>	Many-fruited Pelt Lichen	Yes	Other (Incidental)
<i>Persicaria amphibia</i>	Water Smartweed	Yes	Other (Incidental)
<i>Plagiomnium cuspidatum</i>	Woodsy Thyme-moss	Yes	Other (Incidental)
<i>Plantago major</i>	Common Plantain	Yes	Other (Incidental)
<i>Plantago rugelii</i>	Rugel's Plantain	Yes	Other (Incidental)
<i>Porella platyphylla</i>	Wall Scallowort	Yes	Other (Incidental)
<i>Potentilla norvegica</i>	Rough Cinquefoil	Yes	Other (Incidental)
<i>Prunus virginiana</i>	Chokecherry	Yes	Other (Incidental)
<i>Ranunculus acris</i>	Common Buttercup	Yes	Other (Incidental)
<i>Ranunculus flammula</i>	Lesser Spearwort	Yes	Other (Incidental)



Scientific Name	Common Name	Species-Level Identification (Yes/No)	Observation Type
<i>Rhinanthus minor</i>	Little Yellow Rattle	Yes	Other (Incidental)
<i>Ribes hirtellum</i>	Swamp Gooseberry	Yes	Other (Incidental)
<i>Ribes oxycanthoides</i>	Canada Gooseberry	Yes	Other (Incidental)
<i>Sagittaria cuneata</i>	Northern Arrowhead	Yes	Other (Incidental)
<i>Salix interior</i>	Sandbar Willow	Yes	Other (Incidental)
<i>Salix maccalliana</i>	McCalla's Willow	Yes	Other (Incidental)
<i>Salix myricoides</i>	Blueleaf Willow	Yes	Other (Incidental)
<i>Scutellaria lateriflora</i>	Side-flowering Skullcap	Yes	Other (Incidental)
<i>Setaria viridis</i>	Green Foxtail	Yes	Other (Incidental)
<i>Sium suave</i>	Water Parsnip	Yes	Other (Incidental)
<i>Sonchus oleraceus</i>	Common Sow-thistle	Yes	Other (Incidental)
<i>Stellaria borealis</i>	Boreal Starwort	Yes	Other (Incidental)
<i>Stereocaulon tomentosum</i>	Wooly Foam Lichen	Yes	Other (Incidental)
<i>Symphoricarpos albus</i>	Common Snowberry	Yes	Other (Incidental)
<i>Symphyotrichum lanceolatum</i> var. <i>hesperium</i>	Western Panicked Aster	Yes	Other (Incidental)
<i>Symphyotrichum robynianum</i>	Robyn's Aster	Yes	Other (Incidental)
<i>Taraxacum officinale</i>	Common Dandelion	Yes	Other (Incidental)
<i>Trifolium pratense</i>	Red Clover	Yes	Other (Incidental)
<i>Trifolium repens</i>	White Clover	Yes	Other (Incidental)
<i>Vaccinium angustifolium</i>	Early Lowbush Blueberry	Yes	Other (Incidental)
<i>Vallisneria americana</i>	American Eelgrass	Yes	Other (Incidental)
<i>Vicia cracca</i>	Tufted Vetch	Yes	Other (Incidental)
<i>Amelanchier</i> sp.	Serviceberry	No	Vegetation plot, Other
<i>Anomodon</i> sp.	Anomodon Moss	No	Vegetation plot, Other
<i>Atrichum</i> sp.	Aloe Mosses	No	Vegetation plot, Other
<i>Carex</i> sp.	Carex sedges	No	Vegetation plot, Other
<i>Cladonia</i> sp.	Cladonia	No	Vegetation plot, Other
<i>Dicranum</i> sp.	Fork Moss	No	Vegetation plot, Other
<i>Eleocharis</i> sp.	Spikerushes	No	Vegetation plot, Other
<i>Equisetum</i> sp.	Horsetails	No	Vegetation plot, Other
<i>Eriophorum</i> sp.	Cottongrasses	No	Vegetation plot, Other
<i>Mnium</i> sp.	Leafy Moss	No	Vegetation plot, Other
<i>Peltigera</i> sp.	Pelt Lichen	No	Vegetation plot, Other
<i>Polytrichum</i> sp.	Haircap Moss	No	Vegetation plot, Other
<i>Porella</i> sp.	Scalewort	No	Vegetation plot, Other
<i>Salix</i> sp.	Willow	No	Vegetation plot, Other



Scientific Name	Common Name	Species-Level Identification (Yes/No)	Observation Type
<i>Sphagnum sp.</i>	Peat Mosses	No	Vegetation plot, Other
<i>Stereocaulon sp.</i>	Foam Lichen	No	Vegetation plot, Other
<i>Thuidium sp.</i>	Fern Moss	No	Vegetation plot, Other
<i>Tortella sp.</i>	Twisted Moss	No	Vegetation plot, Other
<i>Umbilicaria sp.</i>	Rock Tripe	No	Vegetation plot, Other
<i>Usnea sp.</i>	Beard Lichen	No	Vegetation plot, Other
<i>Utricularia sp.</i>	Bladderwort	No	Vegetation plot, Other
<i>Lonicera sp.</i>	Honeysuckles	No	Vegetation plot
<i>Lophocolea sp.</i>	Crestwort	No	Vegetation plot
<i>Myriophyllum sp.</i>	Water Milfoils	No	Vegetation plot
<i>Plagiomnium sp.</i>	Thyme Moss	No	Vegetation plot
<i>Poaceae sp.</i>	Grass	No	Vegetation plot
<i>Potamogeton sp.</i>	Pondweed	No	Vegetation plot
<i>Ribes sp.</i>	Currants	No	Vegetation plot
<i>Sparganium sp.</i>	Burreeds	No	Vegetation plot
<i>Viola sp.</i>	Violet Sp.	No	Vegetation plot
<i>Xanthoparmelia sp.</i>	Rock Shield Lichens	No	Vegetation plot
<i>Boechera sp.</i>	Rockcress	No	Other (Incidental)
<i>Bromus sp.</i>	Brome	No	Other (Incidental)
<i>Cyperaceae sp.</i>	Sedge	Yes	Other (Incidental)
<i>Festuca sp.</i>	Fescue	No	Other (Incidental)
<i>Glyceria sp.</i>	Mannagrass	No	Other (Incidental)
<i>Lichen sp.</i>	Epiphytic Lichens	No	Other (Incidental)
<i>Liverwort sp.</i>	Liverwort	No	Other (Incidental)
<i>Melilotus sp.</i>	Sweet-clover	No	Other (Incidental)
<i>Platanthera sp.</i>	Bog Orchid	No	Other (Incidental)
<i>Sonchus sp.</i>	Sow-thistle	No	Other (Incidental)
<i>Vicia sp.</i>	Vetch	No	Other (Incidental)



2.2 MNR-152

Comments, Rationale, and Proposed Action relating to page 11-36/ Section 11.2.1.3.4

- a. With regards to Section 11.2.1.3.3, it is unclear which specific species were considered to determine “areas and plants of traditional importance to Indigenous Peoples”.

Please provide the list of species considered or a citation to the list location, within Section 11.2.1.3.3.

Response:

The methodology used to identify areas and plants of traditional importance to Indigenous peoples is described in Section 11.2.1.3.3 of the EAR/IS. The list of species was developed using a combination of species identified in Section 11.2.2.5, Table 11-15 (i.e., species provided through the federal Tailored Impact Statement Guidelines [TISG]), and additional species identified in the paragraph immediately preceding the table. Consistent with the final EAR/IS and Existing Conditions Report, the species list was derived from vegetation classes sampled during the field program using a random sampling design. As a result, some vegetation classes discussed elsewhere in the EAR/IS are not represented Table 11-15. In addition, only species detected during the field program were denoted with an ‘X’ in the table.

For clarity, a revised table is presented below that includes both species identified in the TISG and species identified through consultation and engagement for the Project (**Table 2-2**).



Table 2-2: Plants of Traditional Importance and Associated Habitat Types (previously Table 11-15 in the Final EAR/IS)

Scientific Name	Common Name	Conifer Forest	Conifer Swamp	Hardwood Forest	Developed / Disturbed	Treed Bog	Treed Fen	Open Bog	Fen	Rock Barren	Other (River / Lake Ecotypes)
<i>Acorus americanus</i>	Northern Sweetflag										
<i>Alnus alnobetula ssp. crispa</i>	Green Alder ¹	X	X			X	X		X		X
<i>Anthoxanthum sp.</i>	Sweetgrass										
<i>Arctostaphylos uva-ursi</i>	Bearberry	X		X							
<i>Artemisia ludoviciana</i>	Sage										
<i>Betula pumila</i>	Dwarf Birch	X	X	X		X	X	X	X		X
<i>Cladonia rangiferina</i>	Reindeer Lichen ²	X	X	X	X	X	X	X	X	X	
<i>Cladonia stellaris</i>	Star-Tipped Cup Lichen	X	X	X		X	X	X		X	
<i>Cornus sericea</i>	Red-Osier Dogwood ¹	X	X	X							
<i>Cornus sp.</i>	Dogwoods	X	X	X	X		X				X
<i>Empetrum nigrum</i>	Black Crowberry	X	X	X		X				X	
<i>Eriophorum sp.</i>	Cottongrass		X			X	X	X	X		X
<i>Juniperus communis</i>	Common Juniper	X	X	X	X			X			
<i>Larix laricina</i>	Tamarack	X	X			X	X	X	X	X	X
<i>Moss sp.</i>	Moss	X	X	X	X	X	X	X	X	X	X
<i>Nymphaea odorata / Nuphar variegata</i>	Lily Pads		X								X
<i>Picea glauca</i>	White Spruce	X			X						
<i>Picea mariana</i>	Black Spruce	X	X	X	X	X	X	X	X	X	X
<i>Populus balsamifera</i>	Balsam Poplar	X	X	X							
<i>Populus tremuloides</i>	Trembling Aspen	X		X						X	
<i>Rhododendron groenlandicum</i>	Labrador tea	X	X	X	X	X	X	X	X	X	X

¹ Some communities refer to this species as Red Willow.

² Reindeer Lichen, Caribou Lichen, Reindeer Moss and Caribou Moss are common names that are often used interchangeably. They refer to a group of lichens rather than true mosses. They most commonly refer to species in the genus *Cladonia* and are a major winter food source for caribou and reindeer, which is why more than one common name exists.



Scientific Name	Common Name	Conifer Forest	Conifer Swamp	Hardwood Forest	Developed / Disturbed	Treed Bog	Treed Fen	Open Bog	Fen	Rock Barren	Other (River / Lake Ecotypes)
<i>Ribes sp.</i>	Gooseberries	X	X			X	X		X		X
<i>Rubus sp.</i>	Raspberries	X	X	X	X	X	X	X	X		X
<i>Salix sp.</i>	Willows	X	X			X	X	X	X		X
<i>Sphagnum sp.</i>	Sphagnum Moss	X	X		X	X	X	X	X	X	X
<i>Thuja occidentalis</i>	White Cedar			X							
<i>Vaccinium angustifolium / myrtilloides</i>	Blueberry	X	X	X		X		X		X	X
<i>Vaccinium oxycoccos</i>	Small Cranberry	X	X			X	X	X	X		X



3 Eskers

3.1 MNR-153

Comments, Rationale, and Proposed Action relating to page 11-39/ 11.2.1.4.2 and Section 11 - General:

Section 11.2.1.4.2 states: “The modelling technique was used to quantify the importance of various environmental factors, such as wetland types, conifer forest, or eskers, and to predict the distribution and importance of habitat and how that functional habitat supports biodiversity.” However, it is unclear where the modelling technique and outcomes for eskers are described.

Section 6-37 / 6.2.2.6 states: “Field work was conducted in 2020 to characterize eskers and evaluate their potential as aggregate/rock sources for the Project.”

From reviewing Section 11, it is unclear whether the importance of eskers on this landscape for biodiversity and upland habitat value is sufficiently discussed.

Eskers provide an important source of upland habitat in a landscape categorized as being over 81% wetlands in the Local Study Area, according to the EA.

Eskers are also important features for the development of spruce-lichen woodlands (Hare 1950, Hustich 1951, Ahti 1964, 1967, Kershaw and Rouse 1971, Bird et al. 1980) that support significant lichen growth used by caribou and should be considered in the identification of, and assessment of effects to, Caribou habitat.

MNR requests eskers be considered as a subset of the vegetation assessment, similar to riparian areas, given the unique habitats it can support in this landscape. Eskers should be assessed not only as a potential aggregate material source as characterized in Section 6, but also for their contribution to biodiversity, unique vegetation communities, landform representation within the ecoregions and support of wildlife habitat.

Similar considerations are also recommended for raised beaches/beach ridge complexes and scattered glaciofluvial features (Section 11.2.2.1, Regional Hydrological functions) if they are also underrepresented and unique to the landscape, and provide value for biodiversity, vegetation communities, landform representation and wildlife habitat on the landscape.

Response:

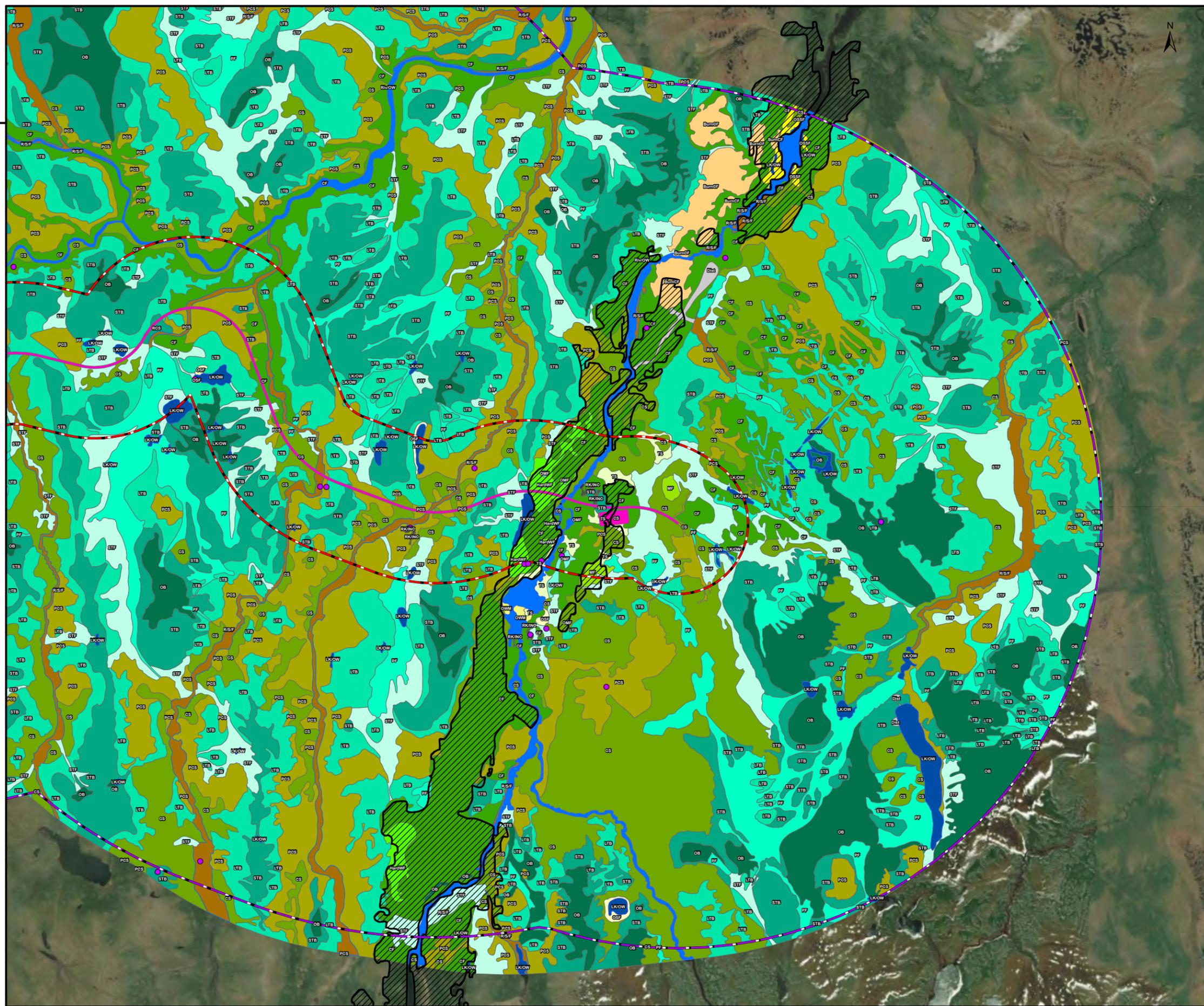
A single prominent (i.e., high relief) esker feature intersects with the Project Footprint, Local Study Area (LSA), and Regional Study Area (RSA). This feature is illustrated in **Figure 2-1** (Vegetation Sampling and Vegetation ELC along the Muketei Esker). Within the Project Footprint, six (6) vegetation classes occur on the elevated landforms associated with the Muketei Esker. In descending order of area, these are Hardwood Forest (1.60 hectares [ha]), Conifer Forest (1.27 ha), Conifer Swamp (0.15 ha), Thicket Swamp (0.14 ha), Sparse Treed Bog (0.10 ha) and Low Treed Bog (0.02 ha). Esker-associated vegetation classes within the LSA and RSA are summarized by vegetation class in **Table 3-1**, using an approach consistent with that applied to riparian areas in Table 11-14 of the Final EAR/IS. No raised beaches or beach ridge complexes occur within the study areas.



Table 3-1: Vegetation Classes Identified on the Muketei Esker within the LSA and RSA

Vegetation Classes Located on the Muketei Esker	Estimated Area within LSA (ha)	% of LSA	Estimated Area within RSA (ha)	% of RSA
Burn Conifer-Forest	---	---	24.48	0.02
Conifer Forest	66.53	0.31	591.73	0.46
Conifer Swamp	11.26	0.05	85.18	0.07
Developed/Disturbed	---	---	5.48	0.00
Hardwood Forest	38.83	0.18	70.01	0.05
Lake/Open Water	1.90	0.01	3.27	0.00
Low Treed Bog	0.07	0.00	11.28	0.01
Mixed Forest	5.81	0.03	9.23	0.01
Open Bog	---	---	3.04	0.00
Open Shore Shrub Fen	---	---	16.24	0.01
Organic Poor Fen	---	---	1.20	0.00
Poor Conifer Swamp	0.47	0.00	30.09	0.02
River/Fen (Open/Sparse Treed/Thicket/Swamp/Marsh)	---	---	5.39	0.00
River/Open Water	0.21	0.00	9.43	0.01
Sparse Treed Bog	0.25	0.00	1.21	0.00
Sparse Treed Fen	0.47	0.00	31.95	0.03
Thicket Swamp	3.42	0.02	6.17	0.00
Total	129.96	0.61	906.31	0.71





- Legend**
- Project Footprint (Preferred Route, Camps, Aggregate Source Areas and Access Road)
 - Local Study Area (LSA 1km from Centreline of Preferred Route)
 - Regional Study Area (RSA 5km from either side of LSA Boundaries)
 - Esker
- ELC Class**
- CF, Conifer Forest
 - MF, Mixed Forest
 - HardWF, Hardwood Forest
 - RCS, Organic Rich Conifer Swamp
 - CS, Conifer Swamp
 - PCS, Poor Conifer Swamp
 - TS, Thicket Swamp
 - OSF, Open Shore Fen
 - OSSF, Open Shore Shrub Fen
 - OWM, Open Water Marsh
 - R/S/F, River/Fen (Open/Sparse Treed/Thicket)/Swamp/Marsh)
 - STF, Sparse Treed Fen
 - OMF, Open Moderately Rich Fen
 - PF, Organic Poor Fen
 - LTB, Low Treed Bog
 - STB, Sparse Treed Bog
 - OB, Open Bog
 - BurnCF, Burn-Conifer Forest
 - Dist, Developed/Disturbed
 - LK/OW, Lake/Open Water
 - Riv/OW, River/Open Water
 - Vegetation Sampling Location

Webequie Supply Road (WSR)

Vegetation Sampling and Vegetation ELC
along the Muketei Esker

Figure Number: <div style="text-align: center; font-size: 1.2em;">Figure 2-1</div>	REV PA
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Client: Webequie First Nation	Project Number: 661910	Date: 3/10/2026
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DSC			
DRN	CHK	APP	AD
AD	KV	X	




NOTES

1. Coordinate System: NAD 1983 UTM Zone 18N.
2. Cadastral boundaries are for informational purposes only and should not be considered suitable for legal, engineering, or surveying purposes.
3. Topographic/landcover features obtained from CanVec v12.0 dataset, Natural Resources Canada Earth and Sciences Sector Centre for Topographic Information; and, Land Information Ontario (LIO) Warehouse Open Data (<https://geohub.io.gov.on.ca/>), Ontario Ministry of Natural Resources and Forestry (OMNRF) Download Date : 2021-02-04

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The Generalized Random Tessellation Stratified Sampling Approach (GRTS) was designed to achieve balanced spatial coverage across the full extent of the LSA and RSA; however, only a small subset of the resulting plots (n = 4) coincided with the esker feature. Of these, three (3) were located within the LSA and one (1) within the RSA. Two (2) plots were situated in Hardwood Forest and two (2) in Conifer Forest. Summary information for these esker plots is provided in **Table 3-2**, and the 85 species recorded in these plots are listed in **Table 3-3**.

Table 3-2: Summary of 2019-2021 Field Program Esker Sampling Plots

Category	Plot Number	Boreal Ecosite Code	Boreal Ecosite Descriptions
Conifer Forest	V39	B035	Dry, Sandy: Pine-Black Spruce Conifer
	V40	B104	Dry, Sandy: Aspen – Birch Hardwood
Hardwood Forest	V152	B040	Fresh, Silty to Fine Loamy: Aspen – Birch Hardwood
	PS-046	B065	Moist, Coarse: Pine – Black Spruce Conifer

Table 3-3: Vegetation identified to Genera or Species in Plots on the Muketei Esker in 2019, 2020 and 2021

Scientific Name	Common Name	V39	V40	V152	PS-046
<i>Abies balsamea</i>	Balsam Fir	X	X	X	X
<i>Alnus alnobetula</i>	Green Alder	X	X	X	
<i>Alnus alnobetula ssp. crispa</i>	American Green Alder				X
<i>Alnus incana</i>	Speckled Alder	X	X		
<i>Amelanchier bartramiana</i>	Bartram's Serviceberry	X	X		
<i>Amelanchier sanguinea</i>	Round-leaved Serviceberry	X	X		
<i>Arctostaphylos uva-ursi</i>	Bearberry	X	X	X	
<i>Betula papyrifera</i>	White Birch	X	X		
<i>Betula pumila</i>	Dwarf Birch	X	X		
<i>Calamagrostis canadensis</i>	Bluejoint Reedgrass	X	X		
<i>Carex aquatilis</i>	Water Sedge	X	X		
<i>Chamaenerion angustifolium</i>	Fireweed	X	X	X	X
<i>Chimaphila umbellata</i>	Pipsissewa	X	X		
<i>Cladonia rangifera</i>	Reindeer Lichen	X	X	X	X
<i>Cladonia stellata</i>	Star-tipped Coral Lichen	X	X	X	X
<i>Cornus canadensis</i>	Bunchberry	X	X	X	X
<i>Cornus sericea</i>	Red-osier Dogwood	X	X	X	
<i>Dasiphora fruticosa</i>	Shrubby Cinquefoil	X	X		
<i>Dendrolycopodium dendroideum</i>	Round-branched Tree-clubmoss	X	X		
<i>Dicranum sp.</i>	Fork Moss			X	
<i>Diphasiastrum complanatum</i>	Northern Ground-cedar	X	X	X	



Scientific Name	Common Name	V39	V40	V152	PS-046
<i>Empetrum nigrum</i>	Black Crowberry	X	X		
<i>Endotropis alnifolia</i>	Alder-leaved Buckthorn	X	X	X	
<i>Equisetum arvense</i>	Field Horsetail	X	X		
<i>Equisetum scirpoides</i>	Dwarf Scouring Rush	X	X	X	
<i>Equisetum sylvaticum</i>	Woodland Horsetail			X	
<i>Fragaria virginiana ssp. glauca</i>	Smooth Wild Strawberry			X	
<i>Galium labradoricum</i>	Bog Bedstraw	X	X		
<i>Gaultheria hispidula</i>	Creeping Snowberry	X	X		X
<i>Geocaulon lividum</i>	Northern Comandra	X	X	X	X
<i>Goodyera repens</i>	Dwarf Rattlesnake-plantain	X	X	X	
<i>Hylocomium splendens</i>	Stairstep Moss			X	X
<i>Juniperus communis</i>	American Common Juniper	X	X	X	
<i>Juniperus horizontalis</i>	Creeping Juniper	X	X		
<i>Lathyrus ochroleucus</i>	Cream-coloured Vetchling	X	X	X	
<i>Linnaea borealis</i>	Twinflower	X	X	X	X
<i>Lonicera oblongifolia</i>	Swamp Fly-honeysuckle	X	X		
<i>Lycopus uniflorus</i>	Northern Water-horehound	X	X		
<i>Lysimachia terrestris</i>	Swamp Candles	X	X		
<i>Maianthemum canadense</i>	Canada Mayflower	X	X	X	
<i>Maianthemum trifolium</i>	Three-leaved False Solomon's Seal	X	X		
<i>Mertensia paniculata</i>	Tall Bluebells	X	X	X	
<i>Mitella nuda</i>	Naked Mitrewort			X	
<i>Myrica gale</i>	Sweet gale	X	X		
<i>Neottia cordata</i>	Heart-leaved Twayblade	X	X		
<i>Nuphar variegata</i>	Variiegated Pond-lily	X	X		
<i>Orthilia secunda</i>	One-sided Wintergreen	X	X	X	
<i>Peltigera aphthosa</i>	Freckled Pelt Lichen	X	X	X	X
<i>Peltigera canina</i>	Dog Pelt Lichen	X	X		X
<i>Petasites frigidus var. palmatus</i>	Palmate Coltsfoot	X	X	X	
<i>Picea mariana</i>	Black Spruce	X	X	X	X
<i>Pinus banksiana</i>	Jack Pine	X	X	X	X
<i>Platanthera orbiculata</i>	Lesser Round-leaved Orchid	X	X		
<i>Pleurozium schreberi</i>	Red-stemmed Feather Moss			X	X
<i>Polytrichum juniperinum</i>	Juniper Haircap Moss	X	X		
<i>Polytrichum sp.</i>	Haircap Moss Sp.				X
<i>Populus balsamifera</i>	Balsam Poplar	X	X		
<i>Populus tremuloides</i>	Trembling Aspen	X	X	X	X
<i>Ptilium crista-castrensis</i>	Ostrich Plume Moss	X	X	X	X
<i>Pyrola asarifolia</i>	Pink Pyrola	X	X	X	



Scientific Name	Common Name	V39	V40	V152	PS-046
<i>Pyrola chlorantha</i>	Green Pyrola	X	X	X	
<i>Rhododendron groenlandicum</i>	Labrador Tea	X	X	X	X
<i>Ribes lacustre</i>	Bristly Black Currant			X	
<i>Ribes triste</i>	Swamp Red Currant			X	
<i>Rosa acicularis</i>	Prickly Rose	X	X	X	X
<i>Rubus arcticus ssp. acaulis</i>	Stemless Raspberry	X	X		
<i>Rubus pubescens</i>	Dwarf Raspberry	X	X	X	
<i>Salix sp.</i>	Willow	X	X		
<i>Salix humilis</i>	Upland Willow	X	X		X
<i>Salix pedicellaris</i>	Bog Willow	X	X		
<i>Salix petiolaris</i>	Slender Willow	X	X		
<i>Salix planifolia</i>	Tea-leaved Willow	X	X		
<i>Solidago hispida</i>	Hairy Goldenrod	X	X	X	
<i>Sorbus decora</i>	Showy Mountain-ash	X	X		
<i>Sparganium natans</i>	Small Burreed	X	X		
<i>Sphagnum spp.</i>	Sphagnum Moss Sp.				X
<i>Spinulum annotinum</i>	Stiff Clubmoss	X	X		
<i>Symphotrichum ciliolatum</i>	Lindley's Aster	X	X	X	
<i>Thuidium sp.</i>	Fern Moss			X	
<i>Tortella sp.</i>	Moss sp.				X
<i>Vaccinium myrtilloides</i>	Velvet-leaved Blueberry	X	X	X	X
<i>Vaccinium uliginosum</i>	Bog Bilberry	X	X		
<i>Vaccinium vitis-idaea</i>	Mountain Cranberry	X	X		
<i>Viburnum edule</i>	Squashberry	X	X	X	X
<i>Viola sp.</i>	Violet Sp.	X	X		



3.2 MNR-169

Comment, Rationale and Proposed Action relating to pages 11-73 and 11-74/Table 11-19:

Vegetation loss is quantified by hectares, but not by percentage of project footprint. In addition, laydown yards are missing from the removals.

Please provide another column to quantify the percent of the vegetation class within the whole project footprint (e.g., 0.77 ha of burn cut would be 0.1% of the total project footprint).

Please provide rationale within this section for the absence of laydown yards within the table, as there was mention that some may be considered for operational maintenance yards.

Should other access roads for aggregate sources be scoped into the Final EA (aside from ARA-4 access road already accounted for), please account for this in the vegetation loss calculations.

Please consider including a summary table (similar to Tables 11-19 and 11-20) provided for esker and raised beach features, or a separate table that captures what percentage of these features that fall within the project footprint and will be permanently lost.

Response:

Tables 11-19 and 11-20 from the Final EAR/IS have been revised and are provided below (herein referred to as **Table 3-4** and **Table 3-5**). They include an additional column quantifying the percentage of each vegetation class within the Project Footprint. Vegetation removals associated with the operational phase are anticipated to be localized and are not included.

Temporary staging and storage areas (i.e., laydown yards) will be used during the active construction phase and progressively reclaimed as they are no longer required. Although these areas may include features such as fencing, gravel surfacing, or temporary lighting, their short-term and transient nature means they are not considered permanent infrastructure or areas of permanent vegetation loss, which would have been included in Table 11-19/**Table 3-4**. In contrast, camps (i.e., construction or worker camps) are typically more developed than laydown yards and may include buildings or modular units, power infrastructure, and the generation of domestic waste and wastewater. Given their longer duration of occupation, proposed camps have been included in Table 11-19/**Table 3-4**. Aggregate sources and their associated access roads are also included to reflect their extended duration and potential impact on the landscape.



**Table 3-4: Permanent Vegetation Losses Within Project Footprint by Project Component
(previously Table 11-19 in the Final EAR/IS)**

Project Component	Vegetation Classification (ELC)	Removals (ha)	% of Project Footprint
Preferred WSR Route (ROW of 35 m width)	Burn-Cut	0.77	0.14
	Burn-Cut-Mixedwood	0.21	0.04
	Conifer Forest	48.08	8.80
	Conifer Swamp/Organic Rich Conifer Swamp	101.5	18.57
	Developed/Disturbed	5.26	0.96
	Hardwood Forest	1.6	0.29
	Low Treed Bog	60.68	11.10
	Mixedwood Forest	1.02	0.19
	Open Bog	0.05	0.01
	Open Shore Fen	0.33	0.06
	Open Shore Fen/Thicket Swamp	0.02	0.00
	Open Shore Shrub Fen	0.61	0.11
	Organic Poor Fen	1.38	0.25
	Poor Conifer Swamp	76.65	14.02
	River/Fen (Open/Sparse Treed/Thicket)/Swamp/Marsh)	5.89	1.08
	Rock Barren	0.75	0.14
	Sparse Treed Bog	28.37	5.19
Sparse Treed Fen	37.02	6.77	
Thicket Swamp	0.07	0.01	
Total Preferred Route Removals – (35 m ROW)		370.12	67.72
Aggregate Source ARA-4 Access Road	Conifer Forest	0.4	0.07
	Conifer Swamp/Organic Rich Conifer Swamp	4.45	0.81
	Poor Conifer Swamp	2.45	0.45
	Low Treed Bog	0.41	0.08
	Open Shore Shrub Fen	0.23	0.04
	Sparse Treed Fen	0.32	0.06
Total Aggregate Source ARA-4 Access Road Removals (15 m ROW)		8.26	1.51
Aggregate Source ARA-2	Conifer Forest	21.33	3.90
	Conifer Swamp/Organic Rich Conifer Swamp	8.92	1.63
	Poor Conifer Swamp	0.82	0.15
	River/Fen (Open/Sparse Treed/Thicket)/Swamp/Marsh)	0.03	0.01
	Rock Barren	2.63	0.48
	Sparse Treed Fen	0.32	0.06
	Thicket Swamp	0.34	0.06



Project Component	Vegetation Classification (ELC)	Removals (ha)	% of Project Footprint
Total Aggregate Source ARA-2 Removals		34.39	6.29
Aggregate Source ARA-4	Conifer Forest	69.25	12.67
	Conifer Swamp/Organic Rich Conifer Swamp	32.13	5.88
	Low Treed Bog	0.03	0.01
	Poor Conifer Swamp	0.12	0.02
Total Aggregate Source ARA-4 Removals		101.53	18.58
Camp 1A	Conifer Forest	4.41	0.81
	Mixedwood Forest	3.19	0.58
	Sparse Treed Bog	0.56	0.10
Total Camp 1A Removals		8.16	1.49
Camp 2A	Conifer Forest	3.82	0.70
	Sparse Treed Bog	0.06	0.01
	Sparse Treed Fen	4.23	0.77
Total Camp 2A Removals		8.11	1.48
Camp 3A	Conifer Swamp	6.12	1.12
	Sparse Treed Fen	1.58	0.29
Total Camp 3A Removals		7.7	1.41
Camp 4B	Conifer Forest	3.51	0.64
	Conifer Swamp	2.45	0.45
	Sparse Treed Bog	0.64	0.12
	Thicket Swamp	1.56	0.29
Total Camp 4B Removals		8.16	1.49
Total Removals		546.57	100.00



Table 3-5: Permanent Vegetation Losses Within the Project Footprint by Vegetation Classification (previously Table 11-20 in the Final EAR/IS)

Vegetation Classification (ELC)	Removals (ha)	% of Project Footprint
Burn-Cut	0.77	0.14
Burn-Cut-Mixedwood	0.21	0.04
Conifer Forest	150.8	27.59
Conifer Swamp\Organic Rich Conifer Swamp	155.58	28.46
Developed/Disturbed	5.26	0.96
Hardwood Forest	1.6	0.29
Low Treed Bog	61.12	11.18
Mixedwood Forest	4.21	0.77
Open Bog	0.05	0.01
Open Shore Fen	0.33	0.06
Open Shore Fen/Thicket Swamp	0.02	0.00
Open Shore Shrub Fen	0.83	0.15
Organic Poor Fen	1.38	0.25
Poor Conifer Swamp	80.04	14.64
River/Fen (Open/Sparse Treed/Thicket)/Swamp/Marsh)	5.92	1.08
Rock Barren	3.38	0.62
Sparse Treed Bog	29.62	5.42
Sparse Treed Fen	43.47	7.95
Thicket Swamp	1.98	0.36
Total Removals	546.57	100.00



4 Wetland Functions

4.1 MNR-163b)

Comment, Rationale, and Proposed Action relating to pages 11-62 and 11-63/ Section 11.2.2.6.1:

The “geophysical wetland functions” section is missing a discussion of bogs.

The rationale for the grouping of wetland ecosystems is unclear and is described differently than in previous sections.

Response:

The first part of the comment was addressed in the Final EAR/IS. Regarding the second question, the differences in how wetland ecosystems are grouped and described reflect the distinct purposes of each table. In Section 11.2.2.6.1 of the EAR/IS, Table 11-16 provides a summary of the geophysical functions of wetlands. Wetland vegetation classes that exhibit similar functional characteristics were amalgamated in this table, even if they were described separately elsewhere in the EAR/IS. For example, Burn Conifer Swamps and Intermediate Conifer Swamps were amalgamated with Conifer Swamps in the table. Such amalgamations do not affect wetland categorization or the effects assessment. An updated version of Table 11-16 has been provided below (**Table 4-1**).



Table 4-1: Summary of Wetland Geophysical Function Values by Wetland Class (previously Table 11-16 in the Final EAR/IS)

Vegetation Classification	Erosion Protection*	Flood Attenuation Potential	Discharge Potential	Recharge Potential	Water Quality	Nutrient Cycling	Carbon Sequestration	Climate Regulation
Low-Treed Bog	Low	Low	Low	High	Low	Moderate/High	High	Low
Open Bog	Low	Low	Low	High	Low	Moderate/High	High	Low
Sparse Treed Bog	Low	Low	Low	High	Low	Moderate/High	High	Low
Sparse Treed Fen	Low	Moderate	High	Low	Moderate/High	Moderate/High	Moderate	Moderate
Open Fen	Low	Moderate	High	Low	Moderate/High	Moderate/High	Moderate	Moderate
Poor Fen	Low	Moderate	High	Low	Moderate/High	Moderate/High	Moderate	Moderate
Conifer Swamp	Moderate/High	Moderate	Moderate	Moderate	High	Low/Moderate	High	Moderate
Intermediate Swamp	Moderate/High	Moderate	Moderate	Moderate	High	Low/Moderate	High	Moderate
Poor Conifer Swamp	Moderate/High	Moderate	Moderate	Moderate	High	Low/Moderate	High	Moderate
Thicket Swamp	Moderate/High	Moderate	Moderate	Moderate	High	Low/Moderate	High	Moderate
Meadow Marsh	High	Moderate/High	High	Low	High	Moderate/High	Low	Moderate/High
Shore Thicket Swamp	High	Moderate/High	High	Low	High	Moderate/High	Moderate	Moderate/High
Open Shrub Shore Fen	High	Moderate/High	High	Low	High	Moderate/High	Moderate	Moderate/High
Open Water Marsh	High	Moderate/High	High	Low	High	Moderate/High	Moderate	Moderate/High



Vegetation Classification	Erosion Protection*	Flood Attenuation Potential	Discharge Potential	Recharge Potential	Water Quality	Nutrient Cycling	Carbon Sequestration	Climate Regulation
River/Floating Marsh	High	Moderate/High	High	Low	High	Moderate/High	High	Moderate/High
River Shore Open – Marsh / Fen/Bog, Low / Sparse/Treed / Fen, Bog, Thicket/Treed Swamp	High	Moderate/High	High	Low	High	Moderate/High	High	Moderate/High

*Erosion Protection values only apply to wetlands adjacent to waterbodies or watercourses

Note: Ordinal values were assigned as follows high (1), moderate/high (0.8), moderate (0.6), low/moderate (0.4), and low (0.2)



5 Mitigation as a Tool to Manage Potential Effects

5.1 MNR-174

Comment, Rationale, and Proposed Action relating to page 11-76/ Table 11-21 and Page 11-82/Table 11-24:

There is a substantial drop in some vegetation classes.

Please discuss whether avoidance is possible in classes with a substantial size loss where the number of patches is limited (i.e., burn-cut, hardwood forest, mixed forest, rock barren and thicket swamp).

Additionally, please describe what this means for representation within the study areas.

Response:

The selection of the preferred route between Webequie First Nation and the eastern terminus of the WSR was guided by a range of social, cultural, environmental, and engineering conditions. Key considerations that informed the selection of the preferred route included:

- A preference for shorter route alternatives, to minimize overall route length where practicable;
- A preference for alternatives that maximize the use of terrain units favourable to road construction, with an emphasis on mineral soils over organic soils;
- A preference for alternatives characterized by lower water tables and fewer areas of open water (e.g., bogs rather than fens, treed bogs over other kinds of bogs);
- A preference for routes alternatives that minimize the number and width of stream crossings;
- A preference for route alternatives that make use of areas of existing disturbance, where feasible, to reduce the extent of new environmental disturbance; and
- Preferences for route alternatives expressed by the Webequie First Nation community, including youth representatives, elders and the Webequie land use planning committee.

Of the viable route alternatives that were initially identified, the preferred route was selected through an evaluation process intended to avoid and minimize environmental effects while maintaining technical feasibility and constructability. The preferred route represents a balance among multiple, and at times competing, considerations, including overall route length, terrain conditions suitable for road construction and maintenance, the number and configuration of stream crossings, proximity to potential aggregate sources. Where practicable, route alternatives that avoided sensitive features or relied on previously disturbed or more constructible terrain were prioritized.

Despite efforts to minimize potential effects, complete avoidance of all vegetation classes is not feasible given terrain constraints and the distribution of suitable aggregate resources necessary for road construction. Consequently, the preferred route and associated aggregate sources will result in the removal of burn-cut, hardwood forest, mixed forest, rock barren and thicket swamp vegetation classes. Several potential aggregate sources within the LSA are located beneath vegetation classes with relatively low representation, and their use reflects a deliberate trade-off intended to limit broader disturbance, reduce haul distances, and avoid effects on more extensive or higher-value vegetation communities.



6 Potential Effects of Compaction on Vegetation and Wetland Areas

6.1 MNR 177 a)

Comment, Rationale and Proposed Action relating to pages 11-91 and 11-92/Section 11.3.2.3.1:

This section does not fully describe the considerations related to compaction in vegetation and wetland areas as a result of construction and operation. For example, will increase access off of the right-of-way result in indirect increase of wetland compaction through amplified land use?

To better understand and evaluate potential effects, please describe the considerations related to construction and operations when evaluating the potential impacts of compaction in vegetation and wetland areas.

Response:

The potential for soil compaction effects on vegetation and wetland areas, including indirect effects beyond the defined ROW, was considered as part of the Environmental Assessment. Boreal environments, such as those in the area in which the Project is proposed to occur, are sensitive to disturbance because of the low bearing capacity of organic and peat-influenced soils (Saraswati et al., 2020; MNRF, 2022; Booth et al., 2025). The Proponent acknowledges that the Project may indirectly increase soil compaction beyond the defined ROW (i.e., in adjacent areas) by enabling localized, repeated off-ROW access by construction, maintenance and/or recreational vehicles (Ploughe and Fraser, 2022; Booth et al., 2025). Compaction in this setting may affect soil permeability, hydrologic connectivity, and vegetation health by altering infiltration rates, groundwater flow paths and soil aeration (El-Ramady et al., 2014; Saraswati et al., 2020; Booth et al., 2025).

Such effects, where they occur, are expected to be localized to areas immediately adjacent to the ROW and associated support infrastructure. Given the nature of the Project, site conditions, and planned mitigation measures (including access management and the implementation of best management practices to minimize direct and indirect effects to vegetation communities during construction and operations) the potential for widespread off-ROW compaction is considered low and limited in spatial extent, as described in the Final EAR/IS.



6.2 MNR 177 b)

Comment, Rationale and Proposed Action relating to pages 11-91 and 11-92/Section 11.3.2.3.1:

Given that the project is largely located in swamp and bog wetland types, the EA would benefit from a discussion about how different wetlands/peatlands would respond to grading and soil disturbance, as Caitlin et al. (2022) referenced in this section is specific to fens.

According to page 11-53 to 11-54, the LSA contains 15.22% fen versus 66.55% swamp/bog. Similarly, the RSA contains 13.94% fen versus 66.77% swamp/bog.

Please discuss the implications of the project being largely in swamp and bog wetlands as compared to fens, and how this might differ or align with the fen-focus of Caitlin et al. (2022). Specifically,

As Caitlin et al. (2022) is the primary reference provided and specifically refers to fens, please include any hypotheses or discussion about how other wetland types (e.g., swamps and bogs) may respond to indirect effect pathways such as grading and soil disturbance.

Please elaborate on the differences between bogs and swamps as compared to fens, and how this may influence the disturbance within the project area.

Given that swamps and bogs make up most of the wetland areas within the project area, it would be helpful to reference literature that highlights how these wetland types respond to similar activities.

Response:

The implications of the project being largely in swamp and bog wetlands as compared to fens aligns with the fen-focus of Willier et al. (2022)³. Indirect effect pathways such as grading and soil disturbance will affect the water flow within a wetland.

Fens are more hydraulically connected to groundwater than bogs and swamps and are therefore particularly sensitive to soil compaction and grading that alter subsurface flow paths. Compaction beneath roads or graded surfaces can act as a hydrologic barrier, creating upstream flooding and downstream drainage effects, as demonstrated by Saraswati et al. (2020), and long-term fen drainage studies (Miller et al., 2015). These processes underpin the disturbance pathways described by Willier et al. (2022). In contrast, bogs are primarily precipitation-fed, with limited reliance on lateral groundwater flow. Bogs may therefore be less susceptible than fens to hydrologic impacts associated with compaction-induced changes in groundwater movement, such as the “dam effect” commonly observed adjacent to roads. Reduced hydraulic connectivity may buffer bogs from some water table redistribution effects that strongly influence fens. Swamps may represent an intermediate position, generally being fed by surface-water and shallow subsurface flow.

Comparatively reduced susceptibility to groundwater disruption does not imply low vulnerability overall. Bogs are sensitive to direct soil disturbance, particularly compaction and puddling of organic, weakly structured peat soils (Adamus, 2014). Even where water tables are not substantially altered, compaction can reduce soil porosity and oxygen diffusion, potentially shifting soils toward anaerobic conditions and altering microbial communities (Startsev and McNabb, 2009). Adamus (2014) notes that organic wetland soils are highly susceptible to long-lasting compaction, with recovery times extending decades.

³ Previously referred to as Caitlin et al. (2022)



Grading and equipment traffic in all wetland types may therefore lead to localized compaction, ponding, and altered microtopography, in addition to the groundwater-mediated effects typically observed in fens. Available recreational and vehicle-disturbance literature further indicates that bogs and other open, wet habitats have low resistance and resilience to vehicle traffic, even when hydrologic impacts are limited. Trip et al. (2015) found bog habitats to be among the least resilient to vehicle disturbance, with rapid vegetation loss and long recovery periods, highlighting the importance of surface soil and vegetation damage pathways independent of groundwater effects.

In summary, fen-focused literature (e.g., Willier et al., 2022) may place greater emphasis on groundwater-mediated effects than is warranted in a landscape dominated by bogs and swamps. However, this literature aligns with expected direct effect pathways, including soil disturbance, soil compaction, puddling/rutting, and vegetation damage. Because fens are generally more sensitive to hydrologic alteration and soil-structure disturbance than precipitation-fed wetlands, applying a fen-based effects framework to a bog- and swamp-dominated landscape represents a precautionary approach unlikely to underestimate potential effects.



7 Fire Risk

7.1 MNR-178

Comment, Rationale, and Proposed Action relating to page 11-95/ Section 11.3.2.3.6; Table 11-30:

With regards to increased risk of fire, this section describes that they have “predicted a distance of approximately 250 m, in keeping with the farthest distance used in assessing the other indirect effect pathways.”

However, the noted distance is quite short if increased camping and access occurs off the right-of-way, as these activities often occur beyond 250 m distance from a road.

Please discuss the fire risk associated with potential increased access or camping off of the right-of-way and consider a wider distance from the right-of-way, in the Final EA.

Response:

Distance-to-road ignition relationships have been evaluated across a wide range of regions, including Italy (Ricotta et al., 2008), Spain (Vega-García et al., 1995; Romero-Calcerrada et al., 2009), Portugal (Catry et al., 2009; Moreira et al., 2010), Turkey (Şentürk et al., 2018), and forested regions of western North America (Syphard et al., 2007; Narayanaraj and Wimberly, 2012). Across these studies, ignition probability consistently declines sharply with increasing distance from roads, with the strongest and most consistent ignition signals occurring within the first few hundred metres of access corridors.

As noted by Romero-Calcerrada et al. (2009), “*modelling human accessibility and influence is one of the most difficult and complicated problem[s]*” to address when conducting wildfire ignition analyses; however, their results showed that distances of ≤ 250 m represent the zone of highest human-caused ignition likelihood, with substantially reduced relevance beyond this range. The authors emphasized that these thresholds reflect patterns of human access rather than fire spread mechanisms.

This interpretation is consistent with studies in boreal ecosystems such as Kuklina et al. (2022), who indicated that roads play a dual role by facilitating both human access and fire suppression, and suggested that ignition processes are most clearly observable in the immediate near-road environment. As discussed in Section 11.3.2.3.6 of the Final EAR/IS, lightning-caused wildfire ignitions are more frequently associated with areas of low road density and limited human access, whereas areas closer to roads are more strongly linked to human-caused ignitions.

Accordingly, the use of a 250 m buffer is considered a conservative and defensible delineation of the near-road zone where human activity and ignition potential are most concentrated. This approach focuses the analysis on the spatial extent where access-related ignition processes are most clearly expressed, while avoiding the inclusion of lightning-driven ignitions and suppression-influenced fire occurrence that may obscure distance-based relationships at larger spatial scales.



8 Indirect Effects on Organic Poor Fens

8.1 MNR-179

Comment on Page 11-99/Table 11-32:

The table shows a 60% potential area of moderate to low indirect effects for “organic poor fen”, which is substantially higher than the other wetland classes described.

Please elaborate on the reasons for the magnitude of impact (and associated risk to that vegetation class) compared to other vegetation classes.

Response:

Upon revisiting the dataset, the team identified that an incorrect ‘available area’ value had been used when calculating the percentage of moderate to low indirect effects for three different vegetation classes: Organic Poor Fen, Poor Conifer Swamp, and Burn Low/Sparse Treed Bog/Fen (the latter representing previously burned areas within Low Treed Bog, Sparse Treed Bog, Low Treed Fen and/or Sparse Treed Fen). The table has been revised accordingly, and the corrected version is presented in **Table 2-9** (below). The revised area values are shown in red.

In addition, numerical values have been standardized to one decimal place, except where values were less than 0.05%. After correcting the area inputs, the proportion of Organic Poor Fen affected by moderate to low indirect effects is 0.1%. This revised value is consistent with the magnitude of indirect effects observed across other vegetation classes.

The previously reported 60% value was an artefact of using the incorrect available-area denominator rather than a reflection of a higher ecological susceptibility or risk to the Organic Poor Fen vegetation class.



Table 8-1: Potential Areas of Indirect Effects by Vegetation Class (previously Table 11-32 in the Final EAR/IS)

Vegetation Class	Area Potentially Affected in LSA (ha)	Area Available in LSA (ha)	% of Available Vegetation Class in LSA	Area Available in RSA (ha)	% of Available Vegetation Class in RSA
Potential Areas of High Indirect Effects					
Burn-Cut	0.7	32.2	2.2%	38.3	1.8%
Burn-Cut-Mixedwood	0.6	31.0	1.9%	31.0	1.9%
Conifer Forest	66.2	1706.9	3.9%	8281.4	0.8%
Conifer Swamp	131.6	4970.1	2.6%	22752.6	0.6%
Developed/Disturbed	3.0	84.6	3.5%	187.2	1.6%
Hardwood Forest	1.8	45.3	4.0%	189.6	0.9%
Low Treed Bog	72.6	4134.4	1.8%	26156.9	0.3%
Mixedwood Forest	1.8	125.7	1.4%	344.0	0.5%
Open Bog	0.1	73.8	0.1%	2478.2	0.004%
Open Shore Fen	0.5	63.4	0.8%	536.2	0.1%
Open Shore Fen/Thicket Swamp	0.1	12.9	0.5%	34.9	0.3%
Open Shore Shrub Fen	1.5	148.0	1.0%	730.2	0.2%
Organic Poor Fen	1.7	336.0	0.5%	3535.4	0.1%
Poor Conifer Swamp	94.9	3261.4	2.9%	18496.6	0.5%
River/Fen (Open/Sparse Treed/Thicket)/Swamp/Marsh)	7.6	432.7	1.8%	2717.5	0.3%
Rock Barren	0.5	9.0	5.6%	13.4	3.7%
Sparse Treed Bog	33.1	1986.2	1.7%	13832.4	0.2%
Sparse Treed Fen	45.5	2221.1	2.0%	10119.7	0.4%
Thicket Swamp	1.0	36.8	2.7%	55.7	1.8%
Potential Areas of Moderate Indirect Effects					
Burn Low/Sparse Treed Bog/Fen	0.01	7.4	0.1%	16.6	0.1%
Low Treed Bog	75.1	4134.4	1.8%	26156.9	0.3%
Open Bog	0.3	73.8	0.4%	2478.2	0.01%
Open Shore Fen	0.5	63.4	0.8%	536.2	0.1%
Open Shore Fen/Thicket Swamp	0.1	12.9	0.8%	34.9	0.3%
Open Shore Shrub Fen	1.7	148.0	1.1%	730.2	0.2%
Organic Poor Fen	1.9	336.0	0.6%	3535.4	0.1%
River/Fen (Open/Sparse Treed/Thicket/Swamp/Marsh)	7.7	432.7	1.8%	2717.5	0.3%



Vegetation Class	Area Potentially Affected in LSA (ha)	Area Available in LSA (ha)	% of Available Vegetation Class in LSA	Area Available in RSA (ha)	% of Available Vegetation Class in RSA
Sparse Treed Bog	32.8	1986.2	1.7%	13832.4	0.2%
Sparse Treed Fen	44.5	2221.1	2.0%	10119.7	0.4%
Thicket Swamp	1.1	36.8	3.0%	55.7	2.0%
Potential Areas of Moderate to Low Indirect Effects					
Burn-Cut	1.0	32.2	3.1%	38.3	2.6%
Burn-Cut-Mixedwood	0.6	31.0	2.1%	31.0	2.1%
Burn Low/Sparse Treed Bog/Fen	0.07	7.4	0.9%	16.6	0.4%
Conifer Forest	64.0	1706.9	3.8%	8281.4	0.8%
Conifer Swamp	130.0	4970.1	2.6%	22752.6	0.6%
Developed/Disturbed	2.2	84.6	2.6%	187.2	1.1%
Hardwood Forest	1.7	45.3	3.8%	189.6	0.9%
Low Treed Bog	76.4	4134.4	1.8%	26156.9	0.3%
Mixedwood Forest	1.9	125.7	1.5%	344.0	0.7%
Open Bog	0.6	73.8	0.8%	2478.2	0.02%
Open Shore Fen	0.4	63.4	0.6%	536.2	0.1%
Open Shore Fen/Thicket Swamp	0.2	12.9	1.6%	34.9	0.6%
Open Shore Shrub Fen	2.1	148.0	1.4%	730.2	0.3%
Organic Poor Fen	2.8	336.0	0.8%	3535.4	0.1%
Poor Conifer Swamp	95.1	3261.4	2.9%	18496.6	0.5%
River/Fen (Open/Sparse Treed/Thicket)/Swamp/Marsh)	7.7	432.7	1.8%	2717.5	0.3%
Rock Barren	0.5	9.0	5.6%	13.4	3.5%
Sparse Treed Bog	31.6	1986.2	1.6%	13832.4	0.2%
Sparse Treed Fen	45.3	2221.1	2.0%	10119.7	0.4%
Thicket Swamp	1.2	36.8	3.3%	55.7	2.1%
Potential Areas of Low Indirect Effects					
Burn-Cut	1.0	32.2	3.1%	38.3	2.6%
Burn-Cut-Mixedwood	0.6	31.0	1.9%	31.0	1.9%
Burn Low/Sparse Treed Bog/Fen	2.5	7.4	33.8%	16.6	15.1%
Burn/Shrubland	0.035	9.8	0.4%	151.9	0.02%
Conifer Forest	59.7	1706.9	3.5%	8281.4	0.7%
Conifer Swamp	127.3	4970.1	2.6%	22752.6	0.6%



Vegetation Class	Area Potentially Affected in LSA (ha)	Area Available in LSA (ha)	% of Available Vegetation Class in LSA	Area Available in RSA (ha)	% of Available Vegetation Class in RSA
Potential Areas of Low Indirect Effects					
Developed/Disturbed	1.8	84.6	2.1%	187.2	1.0%
Hardwood Forest	1.6	45.3	3.5%	189.6	0.8%
Low Treed Bog	804.1	4134.4	19.4%	26156.9	3.1%
Meadow Marsh	0.54	0.6	90.0%	1.0	54.0%
Mixedwood Forest	2.2	125.7	1.8%	344.0	0.6%
Open Bog	4.5	73.8	6.1%	2478.2	0.2%
Open Shore Fen	10.4	63.4	16.4%	536.2	1.9%
Open Shore Fen/Thicket Swamp	4.1	12.9	31.7%	34.9	11.7%
Open Shore Shrub Fen	24.8	148.0	16.7%	730.2	3.4%
Organic Poor Fen	42.9	336.0	12.8%	3535.4	1.2%
Poor Conifer Swamp	95.9	3261.4	2.9%	18496.6	0.5%
River/Fen (Open/Sparse Treed/Thicket)/Swamp/Marsh)	100.5	432.7	23.2%	2717.5	3.7%
Rock Barren	0.38	9.0	4.2%	13.4	2.8%
Sparse Treed Bog	277.7	1986.2	14.0%	13832.4	2.0%
Sparse Treed Fen	463.6	2221.1	20.9%	10119.7	4.6%
Thicket Swamp	8.0	36.8	21.7%	55.7	14.4%



9 Evaluation of Effects on Rock Barrens

9.1 MNR-180

Comment on Page 11-101/Table 11-33:

Given the impacts to rock barren over the 1%-10% threshold, the severity characterized as “slight” does not seem to provide an accurate description.

Please describe why the severity calculations do not appear to account for the changes to rock barren patches.

Response:

The Team acknowledges that, when considered in isolation and based solely on the estimated percentage of permanent vegetation loss, the severity characterization for the Rock Barren vegetation class would be considered serious in the LSA (37.7%) and moderate in the RSA (25.2%). These values are reflected in the vegetation loss estimates presented in Table 11-21 of the EAR/IS. However, Section 11.3.2.4 is intended to function as a summary of the Threat Assessment, bringing together the detailed, vegetation class-specific analyses presented earlier in the document. Accordingly, Table 11-33 provides an overall characterization of severity that reflects this broader, integrated context.

As summarized in Section 11.3.2.4, the broader threat assessment indicates that, when considered across all vegetation communities, permanent vegetation removals represent less than 10% of the area available within both the LSA and RSA. For all vegetation classes other than Rock Barren, permanent vegetation loss ranges from 0.1% to 8.8% in the LSA and 0.002% to 3.55% in the RSA.

As noted in Table 11-33 under the Scope column, confidence in the Rock Barren estimate is lower than for other vegetation classes for two main reasons. First, the Technical Team noted that individual Rock Barren “patches” were generally small and frequently below the minimum mappable scale for ELC. Second, Rock Barrens often occur woven among other vegetation classes. These characteristics likely contributed to Rock Barrens being underrepresented in the analytical results, rather than reflecting a low presence on the landscape itself.

In addition to potential changes in the abundance of vegetation communities across the landscape, the severity characterization in Table 11-33 also considers changes in plant diversity prior to the application of mitigation measures. As identified in Table 11-22, the predicted effect on the Inverse Simpson's Diversity Index ranges from -9% (for the Thicket Swamp and Meadow Marsh classes) to +3% (for the Hardwood Forest class). For Rock Barrens, this predicted change is -1%, which is characterized as slight.

Based on consideration of both vegetation abundance and predicted changes in plant diversity, it is the Team's opinion that the overall net effects assessment would remain unchanged, even if the magnitude of effect for the Rock Barren vegetation class were characterized as of moderate or serious severity.



9.2 MNR-181

Comment on Page 11-106/ Section 11.3.3.5:

"11.3.3.5. describes how the "indirect effects are not expected to affect enough wetland areas to reach or exceed a 10% change, thus the characterization for Scope and Severity effects remains at the levels of Restricted and Moderate, respectively."

However, this statement does not align with wording used immediately above or below, that characterizes the change quite differently as small in scope and slight in severity (Table 11-35 also uses similar descriptions). "

Please confirm the statement, and if correct, describe why it differs from the wording used above and below this statement.

Response:

The statement in question has been revised. It should have read: "However, these indirect effects are not expected to affect enough wetland areas to reach or exceed a 10% change, thus the characterization for Scope and Severity effects remain at small and slight, respectively." This wording aligns with the analysis presented elsewhere in the section, both preceding and following the original statement.



9.3 MNR-182

Comment on Page 11-108/ Section 11.3.4.2:

Plant species and communities of conservation concern are discussed.

Please describe how site preparation will be carried out on rock barrens. Clarify whether project activities, such as including specific activities such as clearing, grubbing, and blasting, pose unique risks to the vegetation communities in rock barrens—particularly those outside the right-of-way—compared to areas with deeper organic soils or treed vegetation.

Response:

Rock Barrens are one of three locally uncommon vegetation communities identified within the LSA and RSA that would be directly affected by the Project; the other two being Hardwood Forest and Mixed Forest. The potential effects to these species and communities of concern are summarized in **Table 9-1**.



Table 9-1: Locally Rare Vegetation Community Losses (previously Table 11-36 in the Final EAR/IS)

Locally Rare Affected Vegetation Classifications (ELC)	Baseline Area of Locally Rare Vegetation Communities in LSA (ha)	Area of Locally Rare Vegetation Communities with Project in LSA (ha)	Baseline Area of Locally Rare Vegetation Communities in RSA (ha)	Area of Locally Rare Vegetation Communities with Project in RSA (ha)	Removals of Rare Vegetation Communities (ha)	Percentage of Locally Rare Communities Removed in LSA	Percentage of Locally Rare Communities Removed in RSA
Hardwood Forest	45.30	43.70	189.56	187.96	1.60	3.53%	0.84%
Mixedwood Forest	125.65	121.44	343.99	339.78	4.21	3.35%	1.22%
Rock Barren	8.96	5.58	13.40	10.02	3.38	37.72%	25.22%



Rock barrens in northern Ontario are often characterized by very shallow or absent soils and low organic matter or nutrient availability (Environment Canada, 2000). Clearing, grubbing and blasting within the Project Footprint would remove existing slow-growing plant assemblages, such as lichens and mosses, which often serve as the primary rooting medium for vascular plants. These activities would also remove stress-tolerant herbaceous plants. As a result, disturbance in rock barren habitats can make post-construction recovery challenging when compared to forested or wetland ecosystems, which typically retain soil or peat substrates that support regeneration over time, even where disturbance is rare (Watkinson et al., 2022; Breton et al., 2021; Bartels et al., 2015).

The evaluation and selection of the WSR preferred route, as well as proposed aggregate source areas where rock barren communities are present, including supporting rationale, are described in detail in Section 3 of the Final EAR/IS. Several potential aggregate sources within the LSA are underlain by rock barren habitat, such that complete avoidance of these communities is not feasible. Where disturbance to rock barren habitats cannot be avoided, recovery efforts will be conservative and focused on stabilizing remaining ecological functions, rather than attempting full restoration.

Reconstruction of microhabitat and geomorphology will be a key component of this approach, recognizing that rock barren habitats are more strongly influenced by microtopography than by vegetation cover alone (Moore et al., 2018; Van Huizen et al., 2024). Where feasible, site-specific biological material will be salvaged and reused. Targeted substrate enhancement and active planting will be minimal and strategic, with natural recolonization preferred where conditions allow. Measures to stabilize hydrological conditions will also be incorporated, as even small changes in surface drainage can influence recovery in rock barren habitats (Moore et al., 2018). More detailed mitigation measures will be incorporated into the Construction Environmental Management Plan (CEMP) and Operations Environmental Management Plan (OEMP), which will be developed during detailed design. MNR and MECP will have opportunities to review and provide input into these plans.

Outside of the ROW, potential effects on rock barren habitats from blasting can occur through vibration transmission, localized bedrock fracturing, and changes to surface drainage patterns. Because rock barren ecosystems are directly coupled to exposed bedrock, they are more sensitive to these effects than soil-based forest or wetland systems (Van Huizen et al., 2024; Hudson et al., 2020; Moore et al., 2018; Environment Canada, 2000). However, potential blasting effects can be effectively controlled through appropriate design and monitoring. Since blasting affects bedrock through physical energy transmission, conservative vibration limits (i.e., lower than those traditionally used for buildings) will be implemented where rock barrens are present. Continuous vibration monitoring at the ROW boundary adjacent to rock barren habitats is recommended. Additional measures, including controlled blast design and physical protection of rock barren areas adjacent to the ROW (e.g., temporary exclusion zones, protective mats or barriers) will be implemented on a case-by-case basis as warranted. Collectively, these measures will limit potential effects beyond the ROW, such that any off-ROW impacts are expected to be localized and manageable and not anticipated to result in widespread or irreversible alteration of rock barren habitat.



9.4 MNR-183

Comment on Page 11-110/ Section 11.3.5.2:

There is substantial change within the rock barren vegetation class; however, this does not appear to be reflected or discussed within Section 11.3.5.2.

Please elaborate on how the impacts to rock barrens factor into the summary threat assessment.

Response:

Section 11.3.5.2 in the Final EAR/IS is intended to function as a summary of the Threat Assessment, integrating the detailed, vegetation class-specific analyses presented in Section 11.3.5.1. Accordingly, in the Final EAR/IS, Table 11-39 provides an overall characterization of potential effects across all vegetation classes containing species of traditional importance to Indigenous peoples, rather than any single vegetation class in isolation.

It should be noted that none of the species recorded by field staff during the Vegetation and Wetlands survey program were unique to Rock Barren communities. Species of traditional importance, including black spruce, tamarack, blueberry, Reindeer lichen, and Labrador tea, are widely distributed throughout the RSA and will continue to be available to Indigenous communities.



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APPENDIX A

Potential SAR Vegetation

McCalla's Willow (*Salix maccallana*)

Shrub 1-5 m, catkins expanding at the same time or after the leaves. Stem, reddish, hairless. Lower surface of leaves not glaucous, margins toothed. Female catkins pubescent. Peat bogs, fens, road and river margins.



Quill's Spikerush (*Eleocharis nitida*)

Very small spike-rush (10 cm) of poorly drained wetlands; plants mat-forming, arising from purple rhizomes; achenes dark yellow, topped by a brown saucer-shaped cap. It is a small and delicate plant, with very thin, wiry culms and a coarse, prominent rhizome. It has bright golden-yellow achenes, each with a small black cap as the tubercle. Like the more common *E. elliptica* (elliptic spikerush), the scales of *E. nitida* are deciduous – they drop from the spikelet early, leaving the bright yellow achenes still tightly packed in the spikelet and easily visible.



Lathagrium undulatum* var. *granulosum

Is a foliose, gelatinous cyanolichen with a dark olive-green to blackish, deeply lobed thallus (thick when wet) and prominent, coarse, marginal granulate isidia-like outgrowths. It grows on damp, calcareous rocks and in montane areas, often forming rosette-like structures that are notably wrinkled when dry.



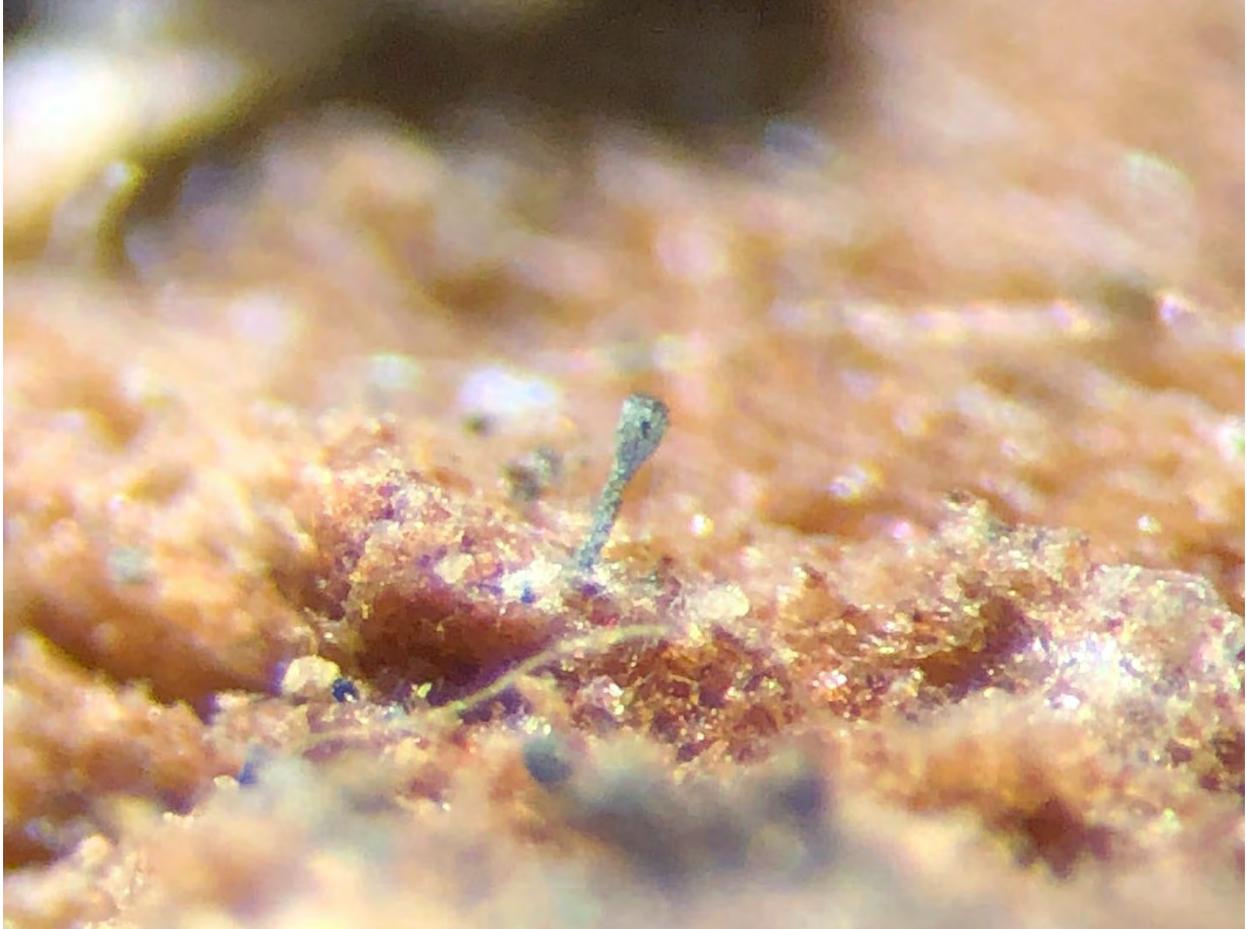
Ephebe hispidula

A dark brown-to-black, microfruticose lichen that forms small, tangled, shrubby, or hair-like cushions on moist, siliceous, acidic upland rocks. It is characterized by its small, bushy habit covered in numerous short, spinule-like side branches.



Chaenothecopsis marcineae

A specialized, non-lichenized calicioid fungus in the family Mycocaliciaceae. It is primarily recognized as a resinicolous species, meaning it grows exclusively on the resin of conifer trees.

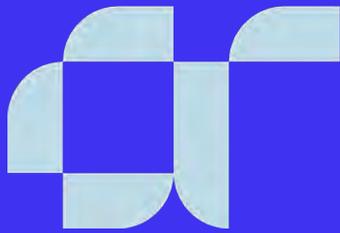


Epilichen scabrosus

This is a parasitic lichen lives on other lichens, beginning as thin, crust-like patches that may break into small islands or scales, and in some cases produce no visible body at all except for their reproductive structures. They reproduce through black, disc-shaped fruiting bodies that contain distinctive brown spores with a "doughnut ring" appearance, and can eventually take over the space occupied by their host lichen once it dies.



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AtkinsRéalis

191 The West Mall
Toronto, ON M9C 5L6
Canada
416.252.5315

atkinsrealis.com

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