



UPPER BEAVER PROJECT

Upper Beaver Gold Project Impact Statement

Section 2: Environmental Setting



Table of Contents

2.0	Environmental Setting	2-1
2.1	Local Context.....	2-1
2.1.1	Overview of Land Uses	2-1
2.1.2	Designated Land Use	2-1
2.1.3	Non-traditional Land and Resource Use	2-2
2.1.3.1	Mining and Mineral Exploration	2-2
2.1.3.2	Forestry and Aggregate Operations	2-3
2.1.4	Traditional Land and Resource Use	2-3
2.1.5	Land Tenure	2-4
2.2	Information Sources	2-10
2.3	Meteorology and Climate	2-10
2.4	Air Quality	2-11
2.5	Light.....	2-14
2.6	Sound	2-14
2.7	Geology and Physiography	2-14
2.8	Groundwater	2-15
2.9	Surface Water Flows and Levels.....	2-16
2.10	Surface Water Quality	2-18
2.11	Fish and Fish Habitat	2-19
2.11.1	Beaverhouse Lake	2-19
2.11.2	Misema River.....	2-20
2.11.3	Ava Lake.....	2-21
2.11.4	York Lake	2-21
2.11.5	Victoria Creek	2-22
2.11.6	Unnamed Streams	2-23
2.12	Vegetation Communities and Wetlands.....	2-25
2.12.1	Vegetation Communities	2-25
2.12.2	Wetlands.....	2-26
2.13	Migratory Birds, Moose and Other Wildlife	2-29
2.13.1	Birds	2-29
2.13.2	Moose.....	2-30
2.13.3	Other wildlife	2-30
2.13.3.1	Mammals	2-30
2.13.3.2	Reptiles and Amphibians.....	2-31
2.14	Species at Risk	2-31
2.15	Social Environment	2-35
2.15.1	Apitipi Anicinapek Nation	2-35
2.15.2	Beaverhouse First Nation.....	2-36
2.15.3	Kebaowek First Nation.....	2-37
2.15.4	Long Point First Nation.....	2-38
2.15.5	Matachewan First Nation	2-38
2.15.6	Taykwa Tagamou Nation	2-39
2.15.7	Temagami First Nation.....	2-40

2.15.8	Timiskaming First Nation.....	2-40
2.15.9	Métis Nation of Ontario - Region 3	2-41
2.15.10	Township of Gauthier (Dobie).....	2-42
2.15.11	Town of Kirkland Lake	2-42
2.15.12	Township of Larder Lake	2-43
2.15.13	Ville de Rouyn-Noranda.....	2-43
2.15.14	City of Timmins.....	2-44
2.15.15	Timiskaming District	2-44
2.16	Local and Regional Economy.....	2-45
2.16.1	Apitipi Anicinapek Nation	2-46
2.16.2	Beaverhouse First Nation.....	2-46
2.16.3	Kebaowek First Nation	2-47
2.16.4	Long Point First Nation.....	2-47
2.16.5	Matachewan First Nation	2-47
2.16.6	Taykwa Tagamou Nation	2-47
2.16.7	Temagami First Nation.....	2-48
2.16.8	Timiskaming First Nation.....	2-48
2.16.9	Métis Nation of Ontario – Region 3	2-48
2.16.10	Township of Gauthier (Dobie).....	2-49
2.16.11	Town of Kirkland Lake	2-49
2.16.12	Township of Larder Lake	2-49
2.16.13	Ville de Rouyn-Noranda.....	2-49
2.16.14	City of Timmins.....	2-49
2.16.15	District of Timiskaming.....	2-50
2.17	Cultural Heritage	2-50
2.18	Archaeology.....	2-50
2.18.1	Terrestrial Archaeology	2-50
2.18.2	Marine Archaeology	2-51
2.19	References	2-52

Tables

Table 2.1-1:	Ongoing Claims and Assertions by Indigenous Nations	2-5
Table 2.3-1:	Climate Stations near the Project	2-11
Table 2.11-1:	Fish Species Present in Local Waterbodies	2-24
Table 2.14-1:	Summary of Species of Conservation Concern	2-33

Figures

Figure 2.1-1:	Project Location	2-6
Figure 2.1-2:	Ontario Crown Land Use Areas	2-7
Figure 2.1-3:	Historical Mine Remnants	2-8

Figure 2.1-4: Active Mining Claims, Disposition Land and Alienation Land.....	2-9
Figure 2.4-1: Baseline Air Quality Monitoring Stations.....	2-13
Figure 2.9-1: Regional Watershed Boundary	2-17
Figure 2.12-1: Significant Wildlife Habitat and Rare Vegetation Communities	2-27
Figure 2.12-2: Project Area Wetlands	2-28
Figure 2.14-1: Species of Conservation Concern, Including Species at Risk.....	2-34

Acronyms and Abbreviations

%	percent
AAN	Apitipi Anicinapek Nation
AEX	Advanced Exploration
Agnico Eagle	Agnico Eagle Mines Limited
ARU	autonomous recording units
BHFN	Beaverhouse First Nation
CCME	Canadian Council of Ministers of the Environment
FEQG	Federal Environmental Quality Guidelines
FMU	Forestry Management Unit
KFN	Kebaowek First Nation
km	kilometre
LPFN	Long Point First Nation
m	metre
MAFA	Moose Aquatic Feeding Habitat
MFN	Matachewan First Nation
MNO	Métis Nation of Ontario (Region 3)
Project	Upper Beaver Gold Project
Property	Upper Beaver Property
SAR	Species at Risk
TemFN	Temagami First Nation
TFN	Timiskaming First Nation
TTN	Taykwa Tagamou Nation
WQG PAL	Water Quality Guidelines for the Protection of Aquatic Life

2.0 Environmental Setting

This section provides background information and environmental context to support the assessment of alternatives and the interpretation of the effects assessment. It describes the local environmental setting of the Upper Beaver Property (Property) in relation to the Upper Beaver Gold Project (Project) and outlines key aspects of the broader regional environment relevant to evaluating potential Project effects and alternatives.

The information summarized in this section is based on existing onsite baseline studies, including those presented in the Impact Statement, as well as other published sources. Detailed datasets, analytical methods, and technical descriptions are not included here; instead, they are documented in the supporting technical reports referenced throughout this section and should be consulted for complete methodological and site-specific information.

2.1 Local Context

2.1.1 Overview of Land Uses

The Property is within the Kirkland Lake – Larder Lake Mining District, which has a long history of exploration and mining dating back over a century. The Property is located approximately 5 km northeast of Dobie, Ontario in the geographic townships of Gauthier and McVittie (Figure 2.1-1). The nearest larger communities are the town of Larder Lake and the town of Kirkland Lake, located about 8 km to the southeast and 19 km to the southwest, respectively (Figure 2.1-1).

2.1.2 Designated Land Use

The Project is located within the municipal boundaries of the Township of Larder Lake and the Township of Gauthier. The Township of Larder Lake Official Plan (2018) establishes the policy framework for land use planning and identifies the Township as having high mineral potential, with policies that support mineral exploration and development. The Project Area is designated Rural Area in the Official Plan. The lands are zoned Natural Resource (NR) in the Township's Zoning By-law (2013), which permits uses such as forestry, conservation, and mineral exploration, but does not identify mineral mining as a permitted use. A zoning by-law amendment is anticipated to permit mineral mining activities. Within the Township of Gauthier, land use planning is guided by the Township of Gauthier Official Plan (2011), which establishes land use designations including Town Site, Rural Area, and Extractive Resources, and recognizes the Township's rural and resource-based planning context. The Official Plan includes policies related to mineral resources, natural heritage features, hazards, cultural heritage and archaeological resources, land use compatibility, and supporting studies required through the planning approvals process. The entire Township is also designated as a site plan control area under the Official Plan, and site plan control may be used for industrial, commercial, institutional, and other applicable development. Planning and building services for the Township of Gauthier are provided through the Temiskaming Municipal Services Association, which administers zoning, development review, and planning application processes on behalf of participating municipalities. The Township of Gauthier does not have an Official Plan, and therefore land use planning is guided by applicable municipal bylaws and provincial policy. Municipal approvals required for Project activities in both municipalities, including any required zoning by-law amendment, site plan approval, and supporting technical studies, are identified as part of the Project's permitting and approvals requirements in Section 16

Through the provincial Crown land use planning process, Crown lands and waters are assigned land use designations. The Project site is located within two General Use Areas: Howard-Misema Lake Chain (G1854) and Great Clay Belt (G1855; MNR 2024). The land use areas are managed by the Kirkland Lake District Land Use Guidelines (MNR 2023a) and generally encourage mineral exploration and development subject to identified limitations. Ontario Crown land uses areas are shown in Figure 2.1-2.

The land use intent for the Howard-Misema Lake Chain is to provide water-based recreational activities, with shoreline recreational activities as priority, while resource extraction will be prioritized in non-shoreline areas. This area is an established recreation area, specifically for fishing and cottaging. The Howard-Misema Lake Chain is designated as a canoe route and is managed under an approved Ministry lake plan that provides for Crown subdivision cottage lots, with approximately 60 cottages located within this land use category. There are two cultural / historic sites within the area as well as a waterfowl production site on Kennedy Lake. Forestry activities are conducted within and adjacent to the area, and mineral potential is identified as high to medium. Urban development is also permitted in this area.

The land use intent for the Great Clay Belt is to provide for resource extractive activities, specifically for forestry and mining, as well as other extractive activities and general recreation activities. Within the Great Clay Belt, forestry is the major activity, and mineral potential is noted to be high to medium. Aggregates can be found in the area. Recreation activities consist of hunting and fishing, with one access point on the Ghost River. Moose winter concentration and habitat areas as well as wetland wildlife areas are located in this land use category. The Black River-Whiteclay River is managed for recreation and tourism purposes, and development is also encouraged.

2.1.3 Non-traditional Land and Resource Use

2.1.3.1 Mining and Mineral Exploration

Ongoing but periodic exploration and underground mining have occurred at or near the Property since 1912. The main mining periods were from: 1912 to 1919, 1919 to 1935 and 1965 to 1971, although there were other periods of exploration activity. Figure 2.1-3 presents existing historical mine surface features at the Property, which are generally situated near York Lake. A total of 477,794 t of ore were processed at the past producing mines at the Property, and unknown volumes of tailings and mine rock were deposited into an unnamed pond downstream of Ava Lake and in York Lake. There is also a remaining pile of mine rock on the western shore of York Lake, adjacent to the historic No. 3 Shaft (Figure 2.1-3).

Periodic surface drilling programs have been ongoing for several years at the Project site and may continue as needed to support resource delineation and to collect technical information. Agnico Eagle Mines Limited (Agnico Eagle) is also conducting other exploration programs in the region that are unrelated to the Project.

Agnico Eagle is currently undertaking an Advanced Exploration (AEX) Program to collect one or more bulk samples of up to a combined maximum of 60,000 t at the Property to inform final Project design. As part of the AEX Program, the deposit will be accessed at depth to extract the bulk sample by means of a new exploration shaft and portal. The results of testing of the material collected during the AEX Program will be used to optimize Project design. There will be no onsite processing of ore extracted from underground and no onsite tailings storage during the AEX Program.

2.1.3.2 Forestry and Aggregate Operations

The Property is located within the Timiskaming Forest, Forestry Management Unit 280 (FMU 280; MNRF 2023b). FMU 280 is primarily located within the Kirkland Lake and Timmins administrative districts of the Ministry of Natural Resources. The total managed Crown productive forest land area within FMU 280 is 1,014,693 ha and is managed under Sustainable Forest Licence #542247 (MNRF 2023c). The managing agent for FMU 280 is Timiskaming Forest Alliance Inc., who entered into a contract with EACOM Timber Corporation. EACOM Timber Corporation is responsible for all renewal and maintenance activities to maintain a sustainable forest for the Timiskaming Forest (Timiskaming Forest Alliance Inc. 2021). The Sustainable Forest Licence covers the timeframe between 2021 to 2031 (EACOM Timber Corporation 2021).

There are no authorized aggregate sites within the baseline investigation area for land use (Land Information Ontario 2023).

2.1.4 Traditional Land and Resource Use

The Property is located near the boundaries of Treaty No. 9 (signed in 1905), Robinson – Huron Treaty (signed in 1850) and James Bay and Northern Québec Agreement (signed in 1977). The closest Indigenous Nation to the Project site is Beaverhouse First Nation (BHFN), which has a settlement on the Misema River approximately 5 km north of the Project site. BHFN was not included in Treaty No. 9 and does not have Reserve lands. The nearest Reserve lands are associated with the communities of Apitipi Anicinapek Nation (AAN) located approximately 44 km north of the Project site, Matachewan First Nation (MFN) located approximately 62 km to the west and Timiskaming First Nation (TFN) located approximately 61 km to the southeast. Six registered trapline areas are present within the baseline investigation area for land use and two traplines overlap with Project components including KL069 (1.0 km²) and KL077 (2.0 km²).

Based on research and publicly available information, Agnico Eagle is aware of a number of land claims and / or assertions of the Indigenous Nations that overlap or are near the Property (Table 2.1-1). Agnico Eagle will continue to engage with Indigenous Nations to confirm the nature and extent of assertions related to the Project.

The following Indigenous knowledge related to the environmental setting of the Project was provided within confidential reports prepared for AAN, BHFN, MFN and TFN:

- Apitipi Anicinapek Nation Indigenous Knowledge, Land Use and Occupancy Study (AAN 2026a) and Apitipi Anicinapek Nation Socio-Economic Baseline Assessment (AAN 2026b)
 - Available information indicates that AAN continues to rely on its traditional territory for land-based activities including hunting, fishing, trapping, plant gathering, and cultural practices. These activities occur across a network of culturally significant areas and travel routes and support food systems, cultural continuity, and intergenerational knowledge transfer (AAN 2026a,b).
- Beaverhouse First Nation Socio-economic Baseline Study (Avaanz 2025)
 - Available information indicates that BHFN uses its traditional territory for land-based and cultural activities, including hunting, fishing, trapping, gathering, and ceremonial use. Land and water use supports cultural practices, subsistence activities, and

community gatherings and involves travel across interconnected lakes, rivers, and seasonal access routes (Avaanz 2025).

- Matachewan First Nation Knowledge and Use Study (MFN 2023)
 - Available information indicates that Matachewan First Nation uses its traditional territory for a range of cultural and land-based activities, including harvesting, habitation, gatherings, and ceremonial practices. These activities are supported by a network of culturally significant sites, including camps, teaching areas, and heritage features, and are closely tied to intergenerational knowledge transfer and cultural continuity (MFN 2023).
- Timiskaming First Nation Algonquin Socio-Cultural-Economic Baseline Impact Assessment Impact Summary (TFN 2024) and Timiskaming First Nation Traditional Territory Land Use and Occupancy Report (TFN 2025)
 - Available information indicates that Timiskaming First Nation continues to engage in traditional land use activities across its territory, including fishing, hunting, plant gathering, and cultural use of sites. These activities support cultural practices, food systems, and community well-being and are associated with culturally significant areas such as camps and travel routes, despite historical constraints on access (TFN 2025).

At the time this section was prepared, Indigenous knowledge studies had been received from Apitipi Anicinapek Nation, Beaverhouse First Nation, Matachewan First Nation, and Timiskaming First Nation. Indigenous knowledge was not received from Kebaowek First Nation, Long Point First Nation, Taykwa Tagamou Nation, Temagami First Nation, or Metis Nation of Ontario – Region 3. Additional information shared by Indigenous Nations will be considered and incorporated into the Impact Statement, where appropriate and subject to confidentiality requirements established with each Indigenous Nation. .

2.1.5 Land Tenure

Agnico Eagle is the 100% owner of the 839 ha Property consisting largely of patents and a single lease, located in the Gauthier and McVittie townships. As of 2026, the Property consists of 52 patented claims with mining and surface rights, 4 patented claims with surface rights only and 1 lease. The Property boundary and locations of the mining claims, patents and mining leases are illustrated in Figure 2.1-4.

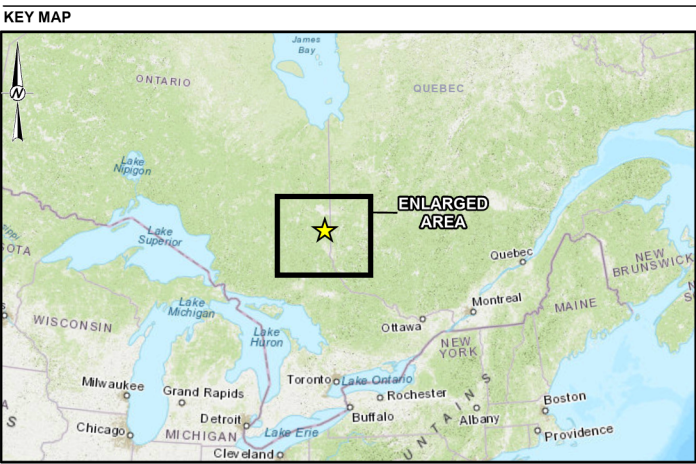
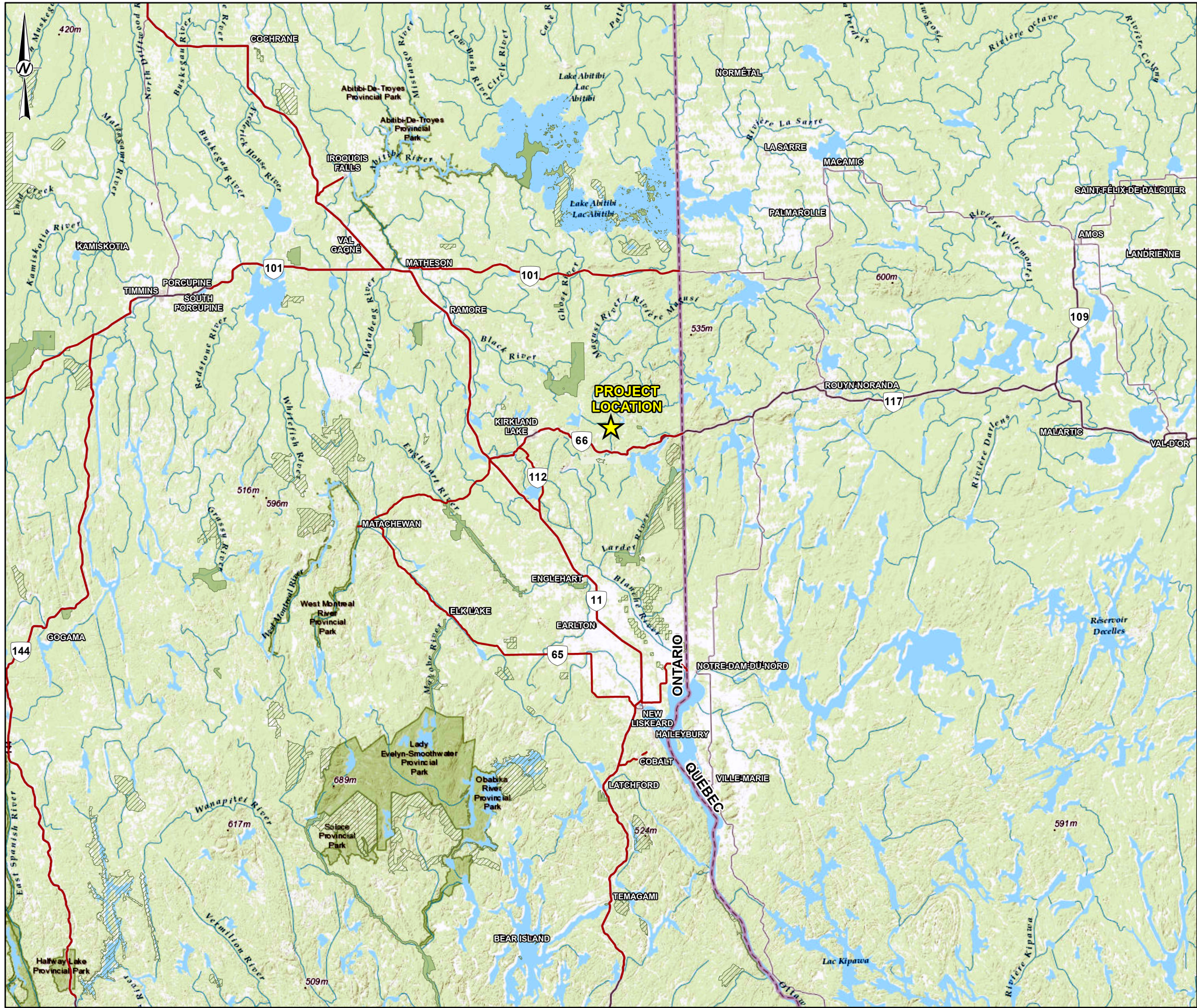
Table 2.1-1: Ongoing Claims and Assertions by Indigenous Nations

Indigenous Nation	Ongoing Claims and Assertions
Apitipi Anicinapek Nation	In April 2010, the Algonquin Anishinabeg Nation Tribal Council has made assertions of their rights in their ancestral territory. The claim included a map of boundaries of the traditional territory which is the same as that presented in their comprehensive land claim of 1989. The boundaries extend into Ontario and in the vicinity of the Project.
Beaverhouse First Nation	Wabun Tribal Council, on behalf of BHFN, has made assertions of BHFN's traditional territory. Boundaries of their traditional territory are in the vicinity of the Project.
Matachewan First Nation	In 2009, MFN filed a Treaty Land Entitlement claim indicating that MFN did not receive all the land it was entitled to under Treaty No. 9 (1906). A settlement was reached May 2024.
Timiskaming First Nation	In January 2013, the Algonquin Nation Secretariat has made assertions of their rights and title over an area of more than 34,000 km ² that extends into Ontario, in close vicinity to the Project.
Métis Nation of Ontario - Region 3	Métis assert a right to harvest in large areas of Ontario. The government has accommodated Métis rights on a regional basis within the Métis harvesting territories identified by the MNO. An interim agreement between the MNO and the Ontario government recognizes the MNO's Harvester Card system. On April 30, 2018, the MNO and Ontario signed a new Framework Agreement on Métis Harvesting that advanced the recognition of Métis' rights in Ontario.

Sources:

Government of Canada 2021; MNO 2021

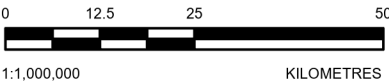
PATH: S:\Clients\Agnico Eagle\Upper Beaver\09_PROJ\CA0042150_6518\025_CML\0000\CA0042150_6518_0025_CML_0000.aprx PRINTED ON: AT 9:11:43 AM



SCALE: 1:25,000,000

LEGEND

- PROJECT LOCATION
- REGIONAL HIGHWAYS
- CONSERVATION RESERVE
- PROVINCIAL PARK



NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. BASEMAP SOURCE: ESRI, HERE, GARMIN, INTERMAP, INCREMENT P CORP, GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), (C) OPENSTREETMAP CONTRIBUTORS AND THE GIS USER COMMUNITY.
3. COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N

CLIENT

AGNICO EAGLE MINES

PROJECT

UPPER BEAVER GOLD PROJECT

TITLE

PROJECT LOCATION

CONSULTANT



YYYY-MM-DD	2026-06-02
DESIGNED	----
PREPARED	MD
REVIEWED	----
APPROVED	----

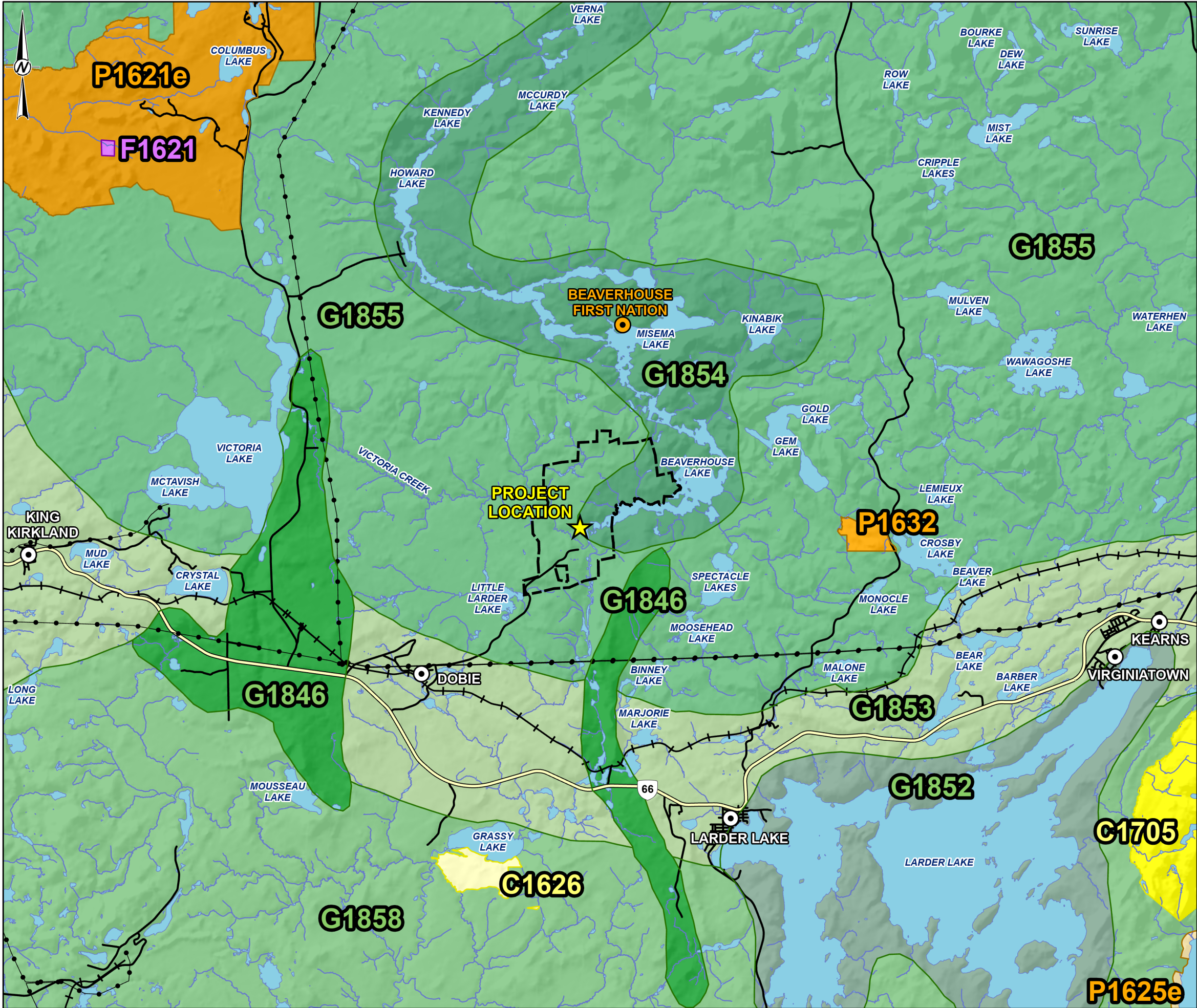
PROJECT NO.
CA0042150.6518

CONTROL
0025

REV.
A

FIGURE
2.1-1

25mm IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B



LEGEND

- ★ PROJECT LOCATION
- ▭ PROPERTY BOUNDARY
- TOWN / COMMUNITY
- FIRST NATION COMMUNITY
- HIGHWAY
- LOCAL ROAD
- + RAILWAY
- TRANSMISSION LINE
- WATERCOURSE
- WATERBODY

ONTARIO CROWN LAND USE AREA

CONSERVATION RESERVE

- C1626
- C1705

FOREST RESERVE

- F1621

PROVINCIAL PARK

- P1625E
- P1632
- P1621E

GENERAL USE AREA

- G1853
- G1852
- G1855
- G1854
- G1846
- G1858

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. WATERBODIES AND WATERCOURSE EXTRACTED FROM LIO, MNRF AND MODIFIED TO MATCH SITE PLAN LAYOUT PROVIDED BY AGNICO EAGLE MINES; TO BE FIELD CONFIRMED.
3. COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N

CLIENT
AGNICO EAGLE MINES

PROJECT
UPPER BEAVER GOLD PROJECT

TITLE
ONTARIO CROWN LAND USE AREAS

CONSULTANT	YYYY-MM-DD	2026-06-10
DESIGNED	----	
PREPARED	MD	
REVIEWED	----	
APPROVED	----	

PROJECT NO.
CA0042150.6518

CONTROL
0025

REV.
A

FIGURE
2.1-2

0 1 2 4
KILOMETRES

1:100,000

PATH: S:\Clients\Agnico_Eagle\Upper_Beaver\09_PROJ\CA0042150_6518\0025_CML_0000\CA0042150_6518_0025_CML_0000.aprx PRINTED ON: AT 10:54:12 AM

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

25mm

PATH: S:\Client\Aginc_Eagle\Upper_Beaver\99_PROJ\CA0042150_6518\99_PROD\2025_10_Setback\CA0042150_6518_2025_CM_0000\CA0042150_6518_2025_CM_0000.aprx PRINTED ON: AT: 10:25:33 AM



LEGEND

HISTORICAL MINE HAZARDS

FENCE

2512.5025

1:1,400

METRES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. MAP EXTRACTED FROM "2019 CLOSURE PLAN AMENDMENT" FIGURE 4.8.1, STORY ENVIRONMENTAL, JAN. 24, 2020; ORTHOPHOTOS OBTAINED FROM QUEENSTON MINING INC. LOCATIONS ARE APPROXIMATE; FENCE OUTLINE PROVIDED BY GOLDER (VIA AEM) ON 13 JUNE 2019.
3. COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N

CLIENT

AGNICO EAGLE MINES

PROJECT

UPPER BEAVER GOLD PROJECT

TITLE

HISTORICAL MINE REMNANTS

CONSULTANT

YYYY-MM-DD

2026-06-16



DESIGNED

PREPARED

MD

REVIEWED

APPROVED

PROJECT NO.

CA0042150.6518

CONTROL

0025

REV.

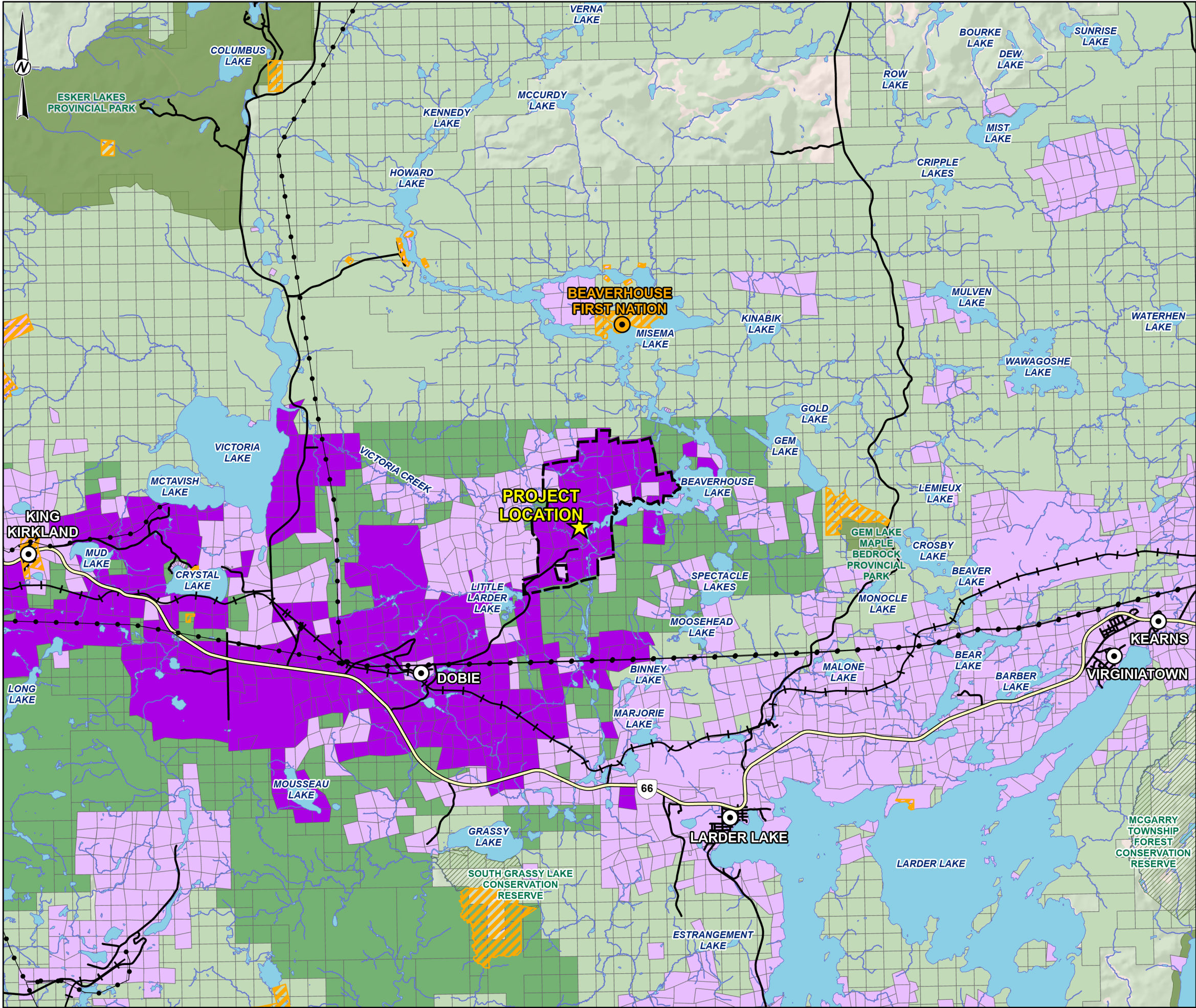
A

FIGURE

2.1-3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

25mm



LEGEND

- ★ PROJECT LOCATION
- PROPERTY BOUNDARY
- TOWN / COMMUNITY
- FIRST NATION COMMUNITY
- ▨ CONSERVATION RESERVE
- PROVINCIAL PARK
- HIGHWAY
- LOCAL ROAD
- + RAILWAY
- TRANSMISSION LINE
- WATERCOURSE
- WATERBODY

AGNICO EAGLE MINES LTD. LAND TENURE

- AGNICO EAGLE MINES LTD. ACTIVE DISPOSITIONS
- AGNICO EAGLE MINES LTD. ACTIVE CLAIM

CROWN LAND TENURE

- DISPOSITION AREA OF CROWN LAND (ACTIVE PATENT, LEASE OR LICENSE OF OCCUPATION)
- ACTIVE CLAIM AREA OF CROWN LAND (ACTIVE STAKED LAND)
- ▨ ALIENATION AREA OF CROWN LAND (ACTIVE WITHDRAWALS AND NOTIFICATIONS)

0 1 2 4
1:100,000 KILOMETRES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. WATERBODIES AND WATERCOURSE EXTRACTED FROM LIO, MNRF AND MODIFIED TO MATCH SITE PLAN LAYOUT PROVIDED BY AGNICO EAGLE MINES; TO BE FIELD CONFIRMED.
3. NON AGNICO EAGLE MINES LAND TENURE EXTRACTED FROM MLAS (MNRF), AUGUST 2025.
4. ANGICO EAGLE MINES LAND TENURE PROVIDED BY AGINCO EAGLE, DECEMBER 2018/JULY 2023.
5. COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N

CLIENT
AGNICO EAGLE MINES

PROJECT
UPPER BEAVER GOLD PROJECT

TITLE
**ACTIVE MINING CLAIMS, DISPOSITION LAND
AND ALIENATION LAND**

CONSULTANT	YYYY-MM-DD	2026-06-10
	DESIGNED	----
	PREPARED	MD
	REVIEWED	----
	APPROVED	----



PROJECT NO. CA0042150.6218	CONTROL 0025	REV. A	FIGURE 2.1-4
-------------------------------	-----------------	-----------	-----------------

PATH: S:\Clients\Agnico_Eagle\Upper_Beaver\09_PROJ\CA0042150_6218\0025_CML_0009\CA0042150_6218_0025_CML_0009.aprx PRINTED ON: AT: 10:54:49 AM

25mm IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

2.2 Information Sources

Baseline data to support the Impact Statement were obtained from site-specific baseline studies, published sources, government databases, community and Indigenous engagement and Indigenous knowledge shared with Agnico Eagle.

The site-specific baseline studies used to support the Impact Statement include:

- Air quality (Appendix D-1)
- Sound (Appendix E-1)
- Ambient light (Appendix L)
- Groundwater (Appendix F-1)
- Hydrology (Appendix G-1)
- Geochemistry (Appendix H-1)
- Water quality (Appendix G-2)
- Aquatic resources (Appendix I-1)
- Terrestrial resources (Appendix K-1)
- Socioeconomics, including land and resource use (Appendix N-1)
- Archaeology (Appendix M-2)
- Cultural heritage (Appendix M-1)
- Detailed Climate Change Dataset (Appendix R-2).

The supporting baseline studies are provided in the appendices listed above. Scientific names for biological species are provided in the respective baseline reports. The environmental baseline studies were completed using standard practices and scientific methodology to accurately represent the baseline environment. Agnico Eagle provided opportunities for regulators, stakeholders and Indigenous Nations to review and provide feedback on the baseline studies.

The following sections provide an overview of the existing natural and socioeconomic environmental conditions to support the assessment of alternatives and potential effects.

2.3 Meteorology and Climate

Climate data typically includes information on precipitation, temperature and wind used to support the Project water balance and flood design, general site design and operations design. The baseline climate change dataset is also used to estimate potential future climate change scenarios to support the Impact Statement. The baseline climate change dataset and methodology are provided in the Detailed Climate Change Dataset (Appendix R-2), whereas local atmospheric data and methodology are provided in the Air Quality Baseline Report (Appendix D-1).

Climate observations were obtained for stations in the region, consisting of 17 climate stations within 80 km of the Project site (Table 2.3-1). The main criteria for the climate station selection are the length of record (typically 30 years of data), similar geographical siting compared to the study area and the availability of continuous daily observations. The nearest Environment and

Climate Change Canada climate station for which long-term, current records are available, is located approximately 18 km from the Project in Kirkland Lake, Ontario (Kirkland Lake CS, Station 6074211). The warmest month on average is July with a mean temperature of 18.2 degrees Celsius, and the coldest is January with a mean temperature of -15.8 degrees Celsius. Average annual total precipitation over the baseline period was 908.2 mm with August being the wettest month (99.9 mm) and February being the driest month (49.6 mm) on average.

Table 2.3-1: Climate Stations near the Project

Station Name	Climate ID	Coordinates	Distance to Site (km)	Elevation (masl)	Time Period	Data Availability	
						Mean Temperature	Total Precipitation
Kirkland Lake	6074209	48.15°N, 80°W	17.35	324	1950-1996	92%	93%
Kirkland Lake CS	6074211	48.15°N, 80°W	17.35	324	1997-2024	85%	73%
Earlton A	6072223	47.7°N, 79.85°W	52.55	244	2011-2024	72%	69%
Earlton A	6072225	47.7°N, 79.85°W	52.55	243	1938-2005	97%	97%
Earlton Climate	6072230	47.7°N, 79.85°W	52.55	243	2008-2024	92%	89%
Englehart	6072325	47.82°N, 79.9°W	40.07	252	1948-2000	0%	97%
Heaslip	6073420	47.8°N, 79.83°W	41.33	222	1928-1967	80%	76%
Indian Chute	6073750	47.85°N, 80.45°W	61.93	293	1950-1972	78%	94%
Barrage Angliers	7080452	47.55°N, 79.24°W	79.34	324	1911-2007	85%	73%
Montbeillard	7085102	48.05°N, 79.27°W	39.28	290	1973-2004	50%	65%
Remigny	7086460	47.22°N, 79.23°W	64.05	290	1971-2024	85%	83%
Rouyn	7086716	48.25°N, 79.03°W	55.41	318	1994-2024	95%	90%
Roquemaure	7086697	48.63°N, 79.46°W	56.04	269	1994-2010	47%	46%
Rouyn-Noranda A	7086719	48.21°N, 78.84°W	68.93	301	2018-2024	84%	0%
Rouyn A	7086720	48.21°N, 78.83°W	69.75	301	1950-1955	9%	76%
Evain	708B309	48.25°N, 79.1°W	50.3	302	1986-1991	68%	69%
La Sarre	7094120	48.78°N, 79.22°W	79	244	1951-2004	73%	72%

2.4 Air Quality

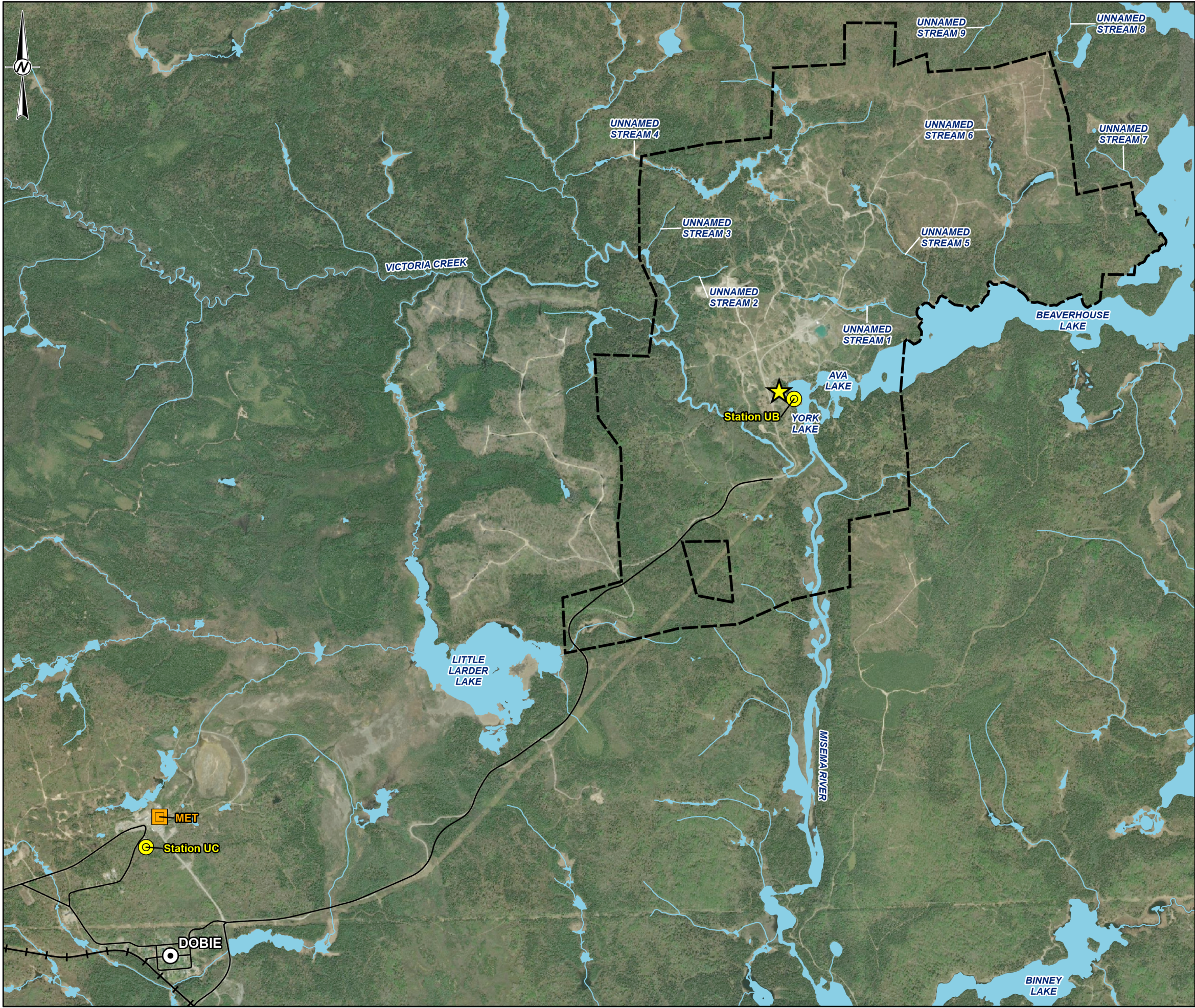
Air quality baseline data were used to characterize the local and regional ambient air quality prior to construction and operations of the proposed Project. Detailed methodology and results are reported in the Air Quality Baseline Report (Appendix D-1).

The Property is located in a remote part of northeastern Ontario. There are no meaningful nearby anthropogenic sources of air emissions. There are no substantial continuous emissions currently from the Property, although there may be periodic emissions associated with exploration and AEX Program activities at the Property.

Ambient air quality at the Project is influenced by natural and anthropogenic sources at the local and regional scales. Natural sources include, but are not limited to, pollen from vegetation during spring and summer months and air pollutants associated with forest fires. Anthropogenic sources include road traffic and construction along nearby unpaved logging and access roads, building heating, wind-blown particulate from exposed area sources, mining and power

generation activity in Kirkland Lake, and contributions from transboundary or long-range transport of air contaminants.

An ambient air quality baseline monitoring program was undertaken in 2021 and 2022 at the Property to establish baseline air concentrations for the Project (Figure 2.4-1; Appendix D-1). The monitoring data were generally consistent with what would be expected for a remote location and with the regional data. Regional data collected as part of the federal National Air Pollution Surveillance network included ozone, carbon monoxide, and particulate matter less than 2.5 microns in diameter as a surrogate for diesel particulate matter. The baseline concentrations measured at the Property for particulate, nitrogen dioxide, sulphur dioxide, volatile organic compounds, and metals were low or below detectable levels. There were seven instances in which measured values were greater than the 24-hour Canadian Ambient Air Quality Standards for particulate matter less than 2.5 microns in diameter in 2021 and 2022; however, these measurements may have been influenced by wildfires. Two instances above the dustfall 30-day Ambient Air Quality Criteria, and five instances greater than the benzo(a)pyrene 24-hr Ambient Air Quality Criteria were also measured in 2022.



LEGEND

- ★ PROJECT LOCATION
- ▬ PROPERTY BOUNDARY
- BASELINE AIR QUALITY MONITORING STATION
- METEOROLOGICAL STATION
- ⊙ TOWN / COMMUNITY
- LOCAL ROAD
- + RAILWAY
- WATERCOURSE
- WATERBODY

0 0.25 0.5 1

1:26,000 KILOMETRES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. IMAGERY CREDITS: SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY
3. WATERBODIES AND WATERCOURSE EXTRACTED FROM LIO, MNRF AND MODIFIED TO MATCH SITE PLAN LAYOUT PROVIDED BY AGNICO EAGLE MINES; TO BE FIELD CONFIRMED.
4. COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N

CLIENT
AGNICO EAGLE MINES

PROJECT
UPPER BEAVER GOLD PROJECT

TITLE
BASELINE AIR QUALITY MONITORING STATIONS

CONSULTANT	YYYY-MM-DD	2026-07-29
	DESIGNED	----
	PREPARED	MD
	REVIEWED	----
	APPROVED	----



PROJECT NO. CA0042150.6518	CONTROL 0025	REV. A	FIGURE 2.4-1
-------------------------------	-----------------	-----------	-----------------

2.5 Light

Baseline data for lighting was collected at the Property to characterize the existing ambient light conditions. Natural sources of ambient light during the night include the illumination from the moon and, to a smaller degree, starlight. Artificial light, stemming from anthropogenic light sources, leads to a phenomenon called sky glow, which is the artificial light scattered and reflected back to the earth's surface by the atmosphere. This sky glow alters the natural ambient lighting conditions of the night.

Detailed methodology and results of the Project-specific baseline study are reported in the Ambient Light Baseline (Appendix L).

The Project is in an area that currently has very low industrial activity and population density. Based on the 2021 and 2022 field readings, the ambient light levels were low (< 0.01 lumen/m²). In the baseline study area, sky brightness on clear, dark sky nights averaged 21.36 magnitudes per square arcsecond. Depending on the season, the sky brightness can be characterized as either a dark or a low district brightness lighting environment.

2.6 Sound

Acoustic data are essential in delineating the prevailing conditions to accurately evaluate the potential effect of noise emanating from the Project. This evaluation helps to maintain compliance with the sound guidelines set by the Ministry of the Environment, Conservation and Parks at receptors in proximity to the Project. Three programs were completed to reflect potential seasonal changes (leaves on and leaves off), as well as during a holiday break, when exploration and forestry activities were not active.

Detailed methodology and results of the Project-specific baseline study are reported in the Sound Baseline Report (Appendix E-1).

There are no existing permanent industries or developments in the immediate area. There may be localized areas where noise emissions reflect recreational and exploration activities. Ambient noise surveys were conducted in 2012, 2013 and 2021. In 2021, noise data were collected from four points of reception around the Project. The data suggests low background sound levels with the average hourly A-weighted Equivalent Sound Level under 45 dBA during daytime and under 40 dBA during nighttime at the four monitoring locations. As a result, the existing wilderness areas surrounding the Property are considered Class 3 (a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic).

In addition to the baseline monitoring program described above, two permanent noise monitoring stations were installed in 2022 and 2023 to support noise monitoring during AEX Program activities. One station is located within the Property's industrial area, and the second is situated at an Agnico Eagle-owned cottage to measure noise levels in proximity to the nearest sensitive receptors (local cottages). Data collected prior to advanced exploration activities has been used to define baseline noise data for the Project. The data collected from these monitoring stations will be used to evaluate compliance with the noise criteria outlined in the AEX Program's Environmental Compliance Approval for Air and Noise.

2.7 Geology and Physiography

The Project sits on a plateau, surrounded by slopes and gullies along its edges. The elevation of this plateau ranges from approximately 300 to 320 masl, while the surrounding slopes, gullies and major surface waterbodies, such as the Misema River, are situated at lower elevations,

reaching down to about 281 masl. The overall landscape is glaciated bedrock terrain, with an undulating overall topography with occasional flat areas. The Property is located within the south-central portion of the Abitibi greenstone belt and is underlain by volcanic, volcanoclastic and epiclastic rocks of the Gauthier (Upper Tisdale) and Lower Blake River groups. Bedrock is generally not exposed except along shorelines. Locally, bedrock is covered by up to 30 m or more of glacio-lacustrine and glacio-fluvial deposits comprised primarily of sand and clay (SRK 2026; Appendix F-1).

A summary of the ongoing geochemistry investigations conducted during exploration programs to date for potential ore, mine rock and tailings is provided in Section 4. Detailed results and methodology regarding the geology of the Property are reported in the Geochemical Characterization Report (Appendix H-1).

2.8 Groundwater

Baseline hydrogeological conditions at the Project site are described in terms of the geological setting, physical characterization and assessment of groundwater quantity and quality. The information is used to support water balance calculations and water management strategies. It can also be used as a future reference in identifying environmental changes and for the assessments of potential effects on groundwater regimes. Detailed methodology and results for groundwater quantity are reported in the Hydrogeology Baseline Report (Appendix F-1) and the methodology and results for groundwater quality are reported in Cumulative Baseline Water Report (Appendix G-2).

Between 2011 and 2023, multiple hydrogeological investigations were completed to characterize groundwater conditions for the Project. Findings from these baseline investigations informed development of the conceptual groundwater flow model (SRK 2026), which highlights the following key characteristics:

- The Project is located on a plateau, and groundwater flow from the Project generally mimics local topography and drains to the south and southeast toward Beaverhouse Lake, Ava Lake, and York Lake and to the west toward Victoria Creek.
- Monitoring well data show overburden thickness varies from 2 to 5 m in most areas to about 8 m in gully features, and groundwater flow in these shallow materials is largely controlled by surface topography.
- The groundwater table is shallow, generally within 3 m from surface.
- The deep, regional groundwater is influenced by the large-scale topography and regional drainage system (i.e., lakes and river levels). It flows southward from the Laurentian Divide to the Temiskaming Basin.
- Groundwater recharge occurs primarily at higher elevations from infiltration of rainfall / snow melt. The lakes, rivers and creeks are discharge locations, with some contributions to recharge locally (i.e., downstream ends of lakes) and / or seasonally (i.e., high flow periods). The groundwater inflows to Ava Lake, York Lake, and Beaverhouse Lake are limited by the low to moderate permeabilities of the overburden and bedrock.
- Groundwater inflows to local waterbodies are expected to be relatively small compared to the surface water inflows.

Groundwater quality monitoring results indicate that groundwater is circumneutral to slightly alkaline, with high hardness, low concentrations of most nutrients (nitrate, nitrite and ammonia) and low concentrations of major anions (sulphate and chloride). Dissolved metal concentrations are generally low at all groundwater monitoring locations. As is standard practice, dissolved metals are measured in groundwater and concentrations reported herein are for dissolved concentrations.

Groundwater in the area is of good quality with low concentrations of dissolved metals. Most parameters were at or below analytical detection limits or below the applicable groundwater quality benchmarks. Where groundwater-specific guidelines were not available, results were compared to the Soil, Ground Water, and Sediment Standards and WQG PAL as appropriate, to provide additional context for baseline conditions. Parameters that were above the selected comparison benchmarks in one or more samples included aluminum (11% of samples), arsenic (4% of samples), cobalt (6% of samples), copper (8% of samples), iron (26% of samples) and phosphorus (14% of samples).

Groundwater monitoring stations located upstream of areas affected by historical mining activities generally exhibited low concentrations of metals. In most cases where groundwater results were greater than applicable guidelines, the station is located downgradient of, or otherwise influenced by, historical mining areas.

2.9 Surface Water Flows and Levels

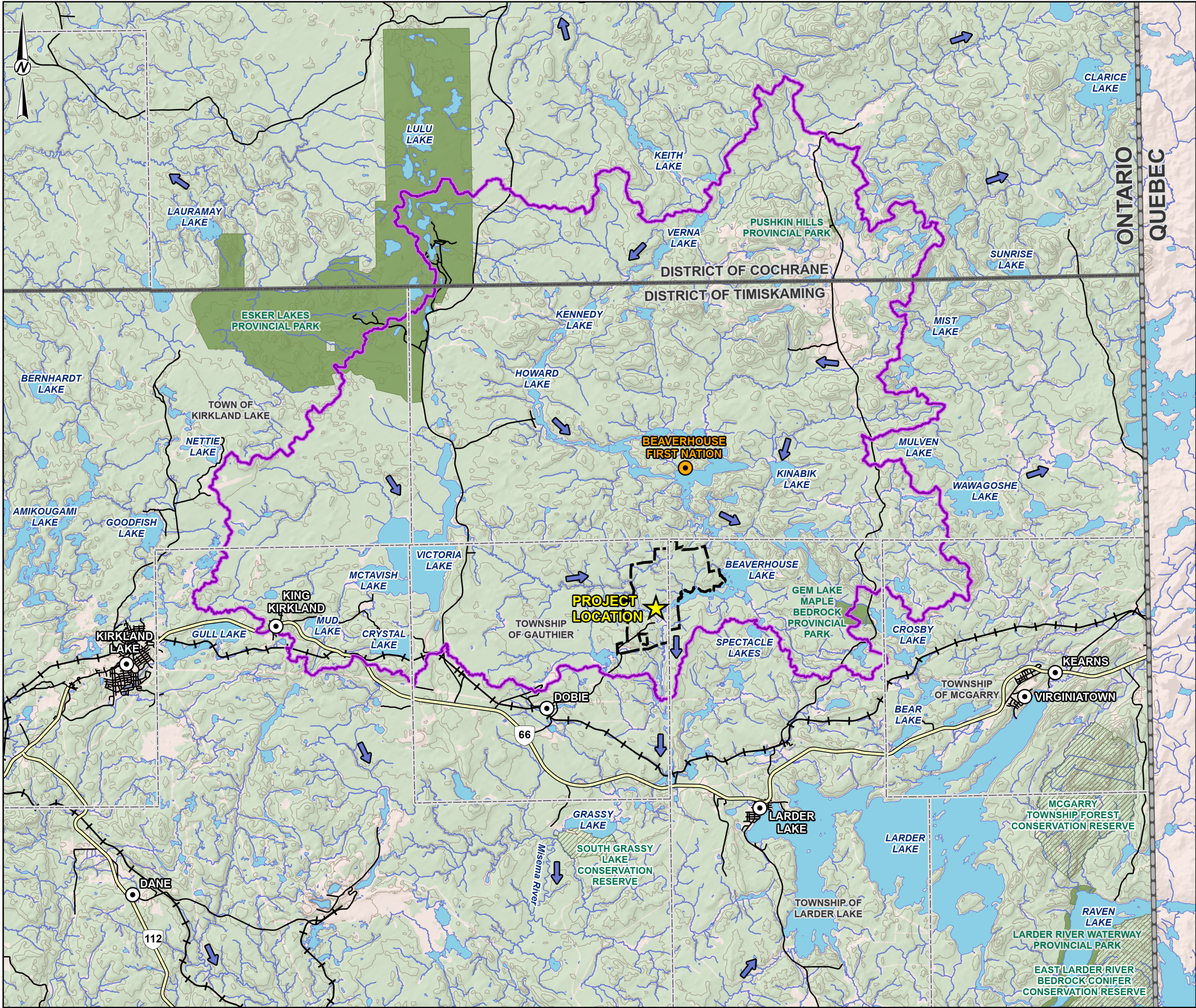
The regional watershed area, major watercourses and major waterbodies in the area around the proposed Project are presented in Figure 2.9-1. Detailed methodology and results regarding hydrology for the surface waterbodies and watercourses on and near the Project are reported in the Baseline Hydrology Report (Appendix G-1).

The Property is located near the Misema River, which flows southward from Beaverhouse Lake, then widening into Ava Lake and York Lake along its course. Downstream of York Lake, the Misema River and Victoria Creek converge and continues southward towards Grassy Lake, approximately 8 km south of the Property. Eventually, the Misema River flows into the Blanche River, which ultimately feeds into Lake Timiskaming (approximately 35 to 40 km downstream) before continuing south to the Ottawa River.

At the downstream end of York Lake, Victoria Creek flows into the Misema River, expanding the overall watershed area at that point to about 400 km². Victoria Creek originates at Victoria Lake, situated about 10 km to the west of the Property.

The Misema River and its tributaries exhibit an annual streamflow pattern characterized by peak flows in spring (typically April and May), and low flows in mid to late summer (July, August, and early September). Extreme low flows, such as the 7Q2 and 7Q20 flows (representing 7-day average low flow events with recurrence intervals of 2 and 20 years, respectively), tend to occur during the summer months.

Hydrological monitoring, including water flow and water level monitoring, has occurred for the Misema River and other key watercourses and waterbodies around the Project from 2011 to 2013, and from 2018 to present. Site-specific monitoring has included six Project area stations: on the Misema River at the outflow of Beaverhouse Lake; on the Misema River downstream of the Project, on the Misema River where Beaverhouse Lake narrows upstream of the Project; two stations on Victoria Creek near the Project, and at the Victoria Lake outflow.



LEGEND

- ★ PROJECT LOCATION
- [] PROPERTY BOUNDARY
- [] WATERSHED
- TOWN / COMMUNITY
- FIRST NATION COMMUNITY
- [] CONSERVATION RESERVE
- [] PROVINCIAL PARK
- HIGHWAY
- LOCAL ROAD
- RAILWAY
- WATERCOURSE
- [] WATERBODY
- CONTOURS (20 M INTERVAL)
- [] PROVINCIAL BORDER
- [] UPPER TIER MUNICIPAL BOUNDARY
- [] LOWER TIER MUNICIPAL BOUNDARY

0 2.5 5 10
1:145,000 KILOMETRES

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. WATERBODIES AND WATERCOURSE EXTRACTED FROM LIO, MNRF AND MODIFIED TO MATCH SITE PLAN LAYOUT PROVIDED BY AGNICO EAGLE MINES; TO BE FIELD CONFIRMED.
3. COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N

CLIENT
AGNICO EAGLE MINES

PROJECT
UPPER BEAVER GOLD PROJECT

TITLE
REGIONAL WATERSHED BOUNDARY

CONSULTANT	YYYY-MM-DD	2026-06-10
DESIGNED	---	
PREPARED	MD	
REVIEWED	---	
APPROVED	---	

PROJECT NO.
CA0042150.6518

CONTROL
0025

REV.
A

FIGURE
2.9-1

PATH: S:\Clients\Agnico_Eagle\Upper_Beaver\09_PROJ\CA0042150_6518\0025_CML_0000\CA0042150_6518_0025_CML_0000.aprx PRINTED ON: AT: 10:55:10 AM

25mm IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

2.10 Surface Water Quality

Baseline water quality investigations have occurred at the Project since 2010. The main periods of investigation were from 2011 to 2013 and from 2018 to present with 660 samples collected. Detailed methodology and results regarding water quality for the surface waterbodies and watercourses on and near the Project are provided in the Cumulative Baseline Water Quality Report (Appendix G-2).

The surface water quality monitoring network targets a range of waterbodies, including the Misema River, smaller unnamed streams and tributaries, as well as upstream reference stations to provide representative sampling across different areas with the potential to interact with the Project. There are 25 water quality sampling stations, and samples were generally collected monthly, when flow is present and the station can be safely accessed.

Results indicate that water quality throughout the regional investigation area generally reflects the characteristics of a typical northern Ontario shield system, with circumneutral pH, high dissolved oxygen levels, low dissolved organic carbon, and low concentrations of nitrogen species (nitrate, nitrite, ammonia) and other anions (chloride, sulphate). Most measured parameters are below the Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL) in all sampled waterbodies, with a few exceptions as discussed below.

In Beaverhouse Lake, concentrations of dissolved aluminum, copper, and lead were occasionally elevated above WQG PAL, most likely reflecting natural geological influences shaped by local geology and rock weathering processes. This interpretation is supported by similar patterns observed in Howard Lake, which is upstream of both Beaverhouse Lake and historical mining activities and thus serves as a reference system for the Project. Naturally elevated metal concentrations are common in regions with mineral-rich geology, where exposure of these materials to oxygen and water through natural weathering releases trace metals into groundwater and surface water, resulting in higher baseline levels in lakes and rivers.

The Misema River occasionally exhibits dissolved aluminum, copper, and phosphorus concentrations elevated above WQG PAL, though these are generally low frequency events (less than 10% of samples). Like Beaverhouse Lake, these results most likely reflect natural geological influences shaped by local geology and rock weathering processes. In addition, there is an area influenced by historical tailings deposition located in York Lake at the outlet of the Misema River; as a result, cobalt, copper and mercury concentrations are elevated relative to the upstream Misema River station, although the concentrations of these parameters remain well below WQG PAL.

Upstream stations on Victoria Creek are characterized by moderate hardness, well-oxygenated conditions, and low nutrient and anion levels. Several metal and nutrient concentrations are increased downstream compared to upstream stations, likely influenced by natural mineralization and historical inputs from the tailings areas at Upper Canada and Little Larder Lake. Conditions in Little Larder Creek (a slow, beaver-impounded tributary that joins Victoria Creek near the Property boundary) also appear to contribute to these downstream increases. Station VT1 exhibits the most frequent instances of concentrations elevated above WQG PAL including aluminum, chromium, cobalt, copper, iron and vanadium, though interpretation is limited by the smaller dataset available for this location.

The unnamed tributary streams differ notably from the larger waterbodies in the regional investigation area, reflecting their shallow, low-flow and highly organic character. They commonly exhibit acidic to circumneutral pH, low oxygen levels, iron staining, and higher nutrient and metal concentrations compared to Beaverhouse Lake and the Misema River. The highest concentrations were observed in Unnamed Stream 1 and several others, where measured parameters such as total phosphorus, aluminum, copper, chromium, iron, lead and zinc were frequently above WQG PAL.

2.11 Fish and Fish Habitat

Detailed methodology and results for fish and fish habitat are provided in the Fish and Fish Habitat Baseline Report (Appendix I-1).

The Project is located in the Northeastern Ministry of Natural Resources Fisheries Management Zone 8, which includes the communities of Hearst, Chapleau, Cochrane, Timmins and Kirkland Lake. The Ministry of Natural Resources characterize this zone as having large river systems draining into the Arctic watershed, and with relatively small, shallow lakes.

Detailed fish and fish habitat baseline studies were conducted in 2011, 2018, 2021, 2022, 2023 and 2025 and have included the following:

- Detailed aquatic habitat investigations of site waterbodies including bathymetry, substrates, aquatic vegetation, water quality and benthic invertebrates.
- Detailed fish community sampling for large bodied and small bodied species through various fisheries sampling techniques (gillnets, minnow traps, seine nets, hoop nets, electrofishing, etc.), providing species richness and relative abundance. In response to feedback received through engagement activities, environmental DNA sampling was completed in the fall of 2025 to provide additional fish species presence data to corroborate the conventional fish sampling results and contribute to the overall fish community dataset.
- Fish tissue and aging studies for large body and small body (forage / baitfish) fish.

A summary of fish species documented in local waterbodies is presented in Table 2.11-1. The comprehensive baseline data supports the characterization of watercourses and waterbodies for the assessment of fish and fish habitat and supports the development of offsetting / compensation measures. The abbreviated summaries below provide a short description of the general habitat conditions and the observed fish community for key waterbodies, based on the baseline aquatic resources studies (Appendix I-1).

2.11.1 Beaverhouse Lake

Beaverhouse Lake is a large lake with several basins. The north basin is a deep basin (greater than 20 m) that receives drainage from Misema Lake and consists of exposed bedrock, steep rock cliffs and boulders. Shorelines consist of mixed coniferous and deciduous forest with several seasonal cabins. The southwest basin is comprised of low-sloping shorelines with emergent grasses and shrubs transitioning into a mixed deciduous and coniferous forest. Lake bottom consists of boulders and bedrock in the northern, deep embayments. Shallow embayments in the southwest basin consist of soft fine-grained sediments with emergent macrophytes including water horsetail and cattail.

The maximum recorded water depth of Beaverhouse Lake was 16 m in the south basin and 10 m in the mid basin. Seasonal profiles at all sites show temperature and dissolved oxygen concentrations decreasing with depth.

Fish community surveys were conducted in Beaverhouse Lake in 2020, 2021 and 2022. There were 14 fish species detected during the study period including: Blacknose Shiner, Brown Bullhead, Burbot, Cisco, Lake Whitefish, Logperch, Northern Pike, Sauger, Sculpin species, Smallmouth Bass, Trout Perch, Walleye, White Sucker and Yellow Perch. Based on the summer water temperature measurements and fish species records, the thermal guild classification for these locations is representative of coolwater fish habitat (Coker et al. 2001; Hasnain et al. 2010).

Fish tissue samples from six species were submitted for analysis in 2021 and 2022. The average total mercury concentration for all species was below the Ontario fish consumption guidelines developed for the general population; approximately 49.5% of all tissue samples did not meet the consumption guidelines for women of child-bearing age and children. All 2021 fish samples had methylmercury concentrations greater than the Canadian Council of Ministers of the Environment (CCME) Canadian Tissue Residue Guideline for the Protection of Wildlife Consumers of Aquatic Biota. The measured total selenium concentrations were below the Federal Environmental Quality Guidelines (FEQG) for all fish tissue samples.

Benthic invertebrate samples were collected in 2011 and 2012. Taxa richness was generally similar to Ava and York lakes in 2021, though the percent of Chironomids was approximately half of that for Beaverhouse Lake. The benthic invertebrate community was more diverse than in Ava Lake and York Lake in 2021, however, the total invertebrate density was much lower (SEI 2018).

2.11.2 Misema River

The Misema River is a large riverine system flowing southward toward the Blanche River, receiving inflows from both York Lake and Victoria Creek near the Project. The river transitions between lacustrine and riverine environments and is segmented by natural features such as riffles, rapids and ponds. Channel conditions vary across the system, with wetted widths of approximately 15 m to 80 m and mean wetted depths of approximately 0.03 m to 2.5 m, based on measurements collected at five locations between Ava Lake and approximately 5 km downstream (SEI 2013). Near the outlet of York Lake, the river reaches a maximum depth of approximately 5.2 m.

Substrates are primarily composed of fine sand and silt, with localized areas of clay and accumulated organic detritus. Substrate conditions vary along the channel, with coarser materials occurring in higher-energy areas and fine sediments and organic materials in lower-energy reaches (SEI 2013). The river is bordered by mixed coniferous and deciduous forest with a shrub-dominated shoreline. The nearshore riverbed was densely vegetated with submerged macrophytes such as watermilfoil and pondweed, while emergent vegetation was sparse and consisted mainly of water horsetail alongside overhanging and fallen woody debris.

Fish community surveys were conducted in the Misema River in 2022. A total of eight fish species were detected during the study period including Brown Bullhead, Burbot, Lake Whitefish, Northern Pike, Smallmouth Bass, Walleye, White Sucker and Yellow Perch, with White Sucker being the most frequently caught species. Species inferred to be present within the Misema River due to connectivity and proximity to the sampled location at the outlet of York Lake include Cisco, Cyprinid species and Slimy Sculpin. Based on the summer water

temperature measurements and fish species records, the thermal guild classification for these locations is representative of warm to coldwater fish habitat (Coker et al. 2001; Hasnain et al. 2010). Small bodied species were not observed during the field studies, and the lack of minnow trap catches suggest forage fish may reside in adjacent tributaries and are less abundant within the Misema River mainstem.

Fish tissue samples from three species were submitted for analysis in 2022. The average total mercury concentration for all species was below the Ontario fish consumption guidelines developed for the general population, with one baseline sample greater than the consumption guidelines for women of child-bearing age and children. All 2021 fish samples had methylmercury concentrations above the CCME Canadian Tissue Residue Guideline for the Protection of Wildlife Consumers of Aquatic Biota. The measured total selenium concentrations were below the FEQG for all tissue samples. Selenium concentrations for tissue samples tended to be lower in the Misema River for all fish species in comparison to other sampling locations.

Benthic invertebrate samples were collected in 2021 and 2022 concurrently with the sediment quality sampling. Taxa composition was generally similar among most locations, showing a high abundance of Chironomidae.

2.11.3 Ava Lake

Ava Lake, located downstream of Beaverhouse Lake, is a shallow lake and is surrounded by a mixed coniferous and deciduous forest with a shrub dominated riparian zone. The lake bottom consists mainly of large boulders and bedrock with gravel and cobble closer to the upstream outlet of Beaverhouse Lake. The fast-flowing connection from Beaverhouse Lake to Ava Lake and rocky substrate provides suitable habitat for riverine spawning species such as Walleye and White Sucker.

The maximum measured water depth in Ava Lake ranges between 10 to 11 m. No thermocline was observed during the May, September, October or November sampling events, indicating that the lake was well-mixed during these periods. Temperature and dissolved oxygen profiles generally decreased with depth.

Fish community sampling indicates that the following species are present: Brown Bullhead, Johnny Darter, Slimy Sculpin, Trout Perch, Walleye, Lake Chub, Northern Pike, Smallmouth Bass and Yellow Perch. In 2023, spawning surveys were conducted during the anticipated spawning period of Walleye and White Sucker. Eggs for both species were present on egg collection mats, confirming spawning habitat for these species in Ava Lake.

Benthic invertebrate samples were collected in 2021 concurrently with the sediment quality sampling. Taxa composition was generally similar among Ava Lake and York Lake, showing a high abundance of Chironomidae and the presence of Leptophlebiidae which are not observed in adjacent waterbodies.

2.11.4 York Lake

York Lake, located downstream of Ava Lake, contains residual tailings from historic mining operations and is bordered by mixed deciduous and coniferous forest with a shrub-dominated understory. Aquatic habitat features include woody debris and both submergent and emergent macrophytes (such as watermilfoil, pondweed and horsetail). Substrate types range from bedrock and boulder to fine-grained and coarse-grained sediments, with cobble and gravel

concentrated near the Ava Lake outflow. The higher flows and rocky substrate in this area provide suitable spawning habitat for riverine species such as Walleye and White Sucker.

The maximum measured water depth of York Lake is 8 m. A thermocline was not present during the May, September, October and November sampling events, which suggests York Lake was well mixed during these periods. Temperature and dissolved oxygen profiles generally show a declining trend with depth.

Fish community surveys were completed in York Lake in 2020, 2021 and 2022 and spawning surveys were completed in 2023. A total of 17 fish species were detected throughout the study period including Brassy Minnow, Brown Bullhead, Burbot, Cisco, Cyprinid species, Johnny Darter, Lake Whitefish, Logperch, Longnose Dace, Northern Pearl Dace, Northern Pike, Slimy Sculpin, Smallmouth Bass, Spottail Shiner, Walleye, White Sucker and Yellow Perch. Based on the summer water temperature measurements and fish species records, the thermal guild classification for these locations is representative of warm to coldwater fish habitat (Coker et al. 2001; Hasnain et al. 2010).

Artificial substrate egg collection mats were deployed in 2023 during the anticipated spawning timing of Walleye and White Sucker. Eggs for both species were present on egg collection mats, confirming spawning habitat for these species in York Lake. Northern Pike were not observed during the spring spawning survey in York Lake.

Fish tissue samples from seven species collected in 2021 and 2022 exhibited average total mercury concentrations below the Ontario fish consumption guideline for the general population, while 20% of samples were above the guideline for sensitive populations. Total mercury concentrations tended to be higher in York Lake than in other sampled lakes. All 2021 biota samples had methylmercury concentrations greater than the CCME Canadian Tissue Residue Guideline for the Protection of Wildlife Consumers of Aquatic Biota, although total methylmercury tended to be lower in York Lake than elsewhere. The measured total selenium concentrations in all samples were below the FEQG threshold.

Benthic invertebrate samples were collected in 2021 concurrently with the sediment quality sampling. Taxa composition was generally similar among Ava Lake and York Lake, showing a high abundance of Chironomidae.

2.11.5 Victoria Creek

Victoria Creek is located downstream of York Lake and discharges into Misema River. This watercourse is surrounded by a mixed deciduous and coniferous forest with a shrub understory overhanging the watercourse. The banks of Victoria Creek are unstable, with eroding and undercut banks that are, in some cases, greater than 1 m in height. The stream bottom consists of silt, sand and clay and depth greater than 1 m in the middle of the channel.

Fish community surveys were completed in Victoria Creek in 2021 and 2022. A total of 12 fish species were detected throughout the study period including Brook Stickleback, Brown Bullhead, Common Shiner, Creek Chub, Cyprinid species, Finescale Dace, Logperch, Longnose Dace, Mottled Sculpin, Northern Pearl Dace, Slimy Sculpin, Smallmouth Bass and Yellow Perch. Based on summer water temperature measurements and fish species records, the thermal guild classification for these locations is representative of warm to coldwater fish habitat (Coker et al. 2001; Hasnain et al. 2010).

Five Common Shiner composite samples were submitted for fish tissue analysis from Victoria Creek in 2021. All composite fish tissue samples had methylmercury concentrations greater than the CCME Canadian Tissue Residue Guideline for the Protection of Wildlife Consumers of Aquatic Biota in all samples. All measured total selenium concentrations were below than the FEQG for whole body samples.

Sediment quality samples were taken in the fall of 2021 for analysis, and showed measurements above guidelines for chromium, copper, nickel, total Kjeldahl nitrogen and total organic carbon at some locations. Benthic invertebrate samples were collected in the fall of 2022. Taxa composition was generally similar throughout Victoria Creek, showing a high abundance of Chironomidae.

2.11.6 Unnamed Streams

The following unnamed streams have been sampled as part of the fish and fish habitat baseline investigations:

- Unnamed stream 1
- Unnamed stream 2
- Unnamed stream 3
- Unnamed stream 4
- Unnamed stream 5
- Unnamed stream 6
- Unnamed stream 7
- Unnamed stream 8.

The unnamed streams within the regional investigation area are generally small, shallow, low-flow watercourses, many of which occur within wetlands or beaver-influenced landscapes. Channel widths are typically narrow (often less than 1 m), with depths commonly ranging from only a few centimetres to roughly 0.5 m. Many reaches experience intermittent or no flow during summer months, and several sections are fully ponded due to beaver dams or naturally stagnant conditions. Water is frequently brown or tea-stained, reflecting high organic and / or iron content, and substrates are commonly soft, mucky or composed of fine sediments such as silt. Riparian zones are typically dominated by grasses, sedges, shrubs (e.g., alder), and mixed forest, with abundant woody debris providing in-stream cover.

Across the drainage network and unnamed streams, habitat suitability varies widely. Some streams support small-bodied warm to coolwater fish assemblages, typically species such as Brook Stickleback, Fathead Minnow, Finescale Dace and Northern Redbelly Dace, while others provide little to no suitable fish habitat due to shallow depths, stagnant conditions, low dissolved oxygen or intermittent flow. Beaver ponds are a recurring feature and contribute to habitat complexity, but also create isolated, low-oxygen environments where fish presence is limited or absent.



Table 2.11-1: Fish Species Present in Local Waterbodies

Waterbody / Watercourse	Location ID	Species Richness	Blacknose Shiner	Bluntnose Minnow	Brassy Minnow	Brook Stickleback	Brown Bullhead	Burbot	Cisco	Chrosomus hybrid	Common Shiner	Creek Chub	Cyprinid species	Emerald Shiner	Fathead Minnow	Finescale Dace	Johnny Darter	Lake Chub	Lake Whitefish	Logperch	Longnose Dace	Mottled Sculpin	Northern Pearl Dace	Northern Pike	Northern Redbelly Dace	Sauger	Sculpin species	Slimy Sculpin	Smallmouth Bass	Spottail Shiner	Trout Perch	Walleye	White Sucker	Yellow Perch
Unnamed Stream 1	UNS1	7		X	X	X				X						X							X		X									
	UNS1-BP	5(7)		Xi	X	X				Xi						X							X		X									
Unnamed Stream 2	UNS2	1				X																												
Unnamed Stream 3	UNS3	0																																
Unnamed Stream 4	UNS4	11		X	X	X				X	X	X		X	X	X							X		X									
Unnamed Stream 4 East Tributary	UNS4-ET	3(11)		Xi	Xi	X				Xi	Xi	Xi		Xi	Xi	X							X		Xi									
Unnamed Stream 4 Beaver Pond	UNS4-BP	8(11)		X	X	X				Xi	X	Xi		Xi	X	X							X		X									
Unnamed Stream 5	UNS5	5(7)		Xi		X				X				X		Xi							X		X									
Unnamed Stream 5 Beaver Pond	UNS5-BP	5		X						X						X							X		X									
Unnamed Stream 6	UNS6-S01	2(4)				X									Xi	X									Xi									
	UNS6-P01	4(5)				X				X					X	Xi									X									
	UNS6-P02	1(4)				X									Xi	Xi									Xi									
Unnamed Stream 7	UNS7-P01	4								X					X	X									X									
Unnamed Stream 8	UNS8-S01	5				X				X					X	X									X									
	UNS8-P01	5				X				X					X	X									X									
	UNS8-P02	3(5)				X				X					X	Xi									Xi									
Beaverhouse Lake	BL	14	X				X	X	X										X	X				X		X	X		X		X	X	X	X
Ava Lake	AL	9					X*										X*	X*						X*				X*	X*		X*	X*		X*
York Lake	YL	17			X		X	X	X				X				X		X	X	X		X	X				X	X	X		X	X	X
Misema River	MR-EXP	8(11)					X	X	Xi				Xi						X					X				Xi	X			X	X	X
Victoria Creek	VCS01	2(11)				X	Xi				Xi	Xi				Xi				Xi	Xi	Xi	X						Xi					Xi
	VCS02	6(12)				X	Xi				X	X	X			X				Xi	Xi	Xi	X						Xi					Xi
	VCS03	2(11)				Xi	Xi				X	Xi				Xi				Xi	Xi	X	Xi						Xi					Xi
	VCS04	2(11)				Xi	Xi				Xi	Xi				Xi				X	X	Xi	Xi						Xi					Xi
	VCS05	5(11)				X	X				X	Xi				Xi				Xi	Xi	Xi	Xi						X					X
	VCS06	2(11)					X	Xi	Xi				Xi						Xi					Xi					X	Xi		Xi	Xi	Xi
	VCP01	5(11)				X	Xi				X	X				Xi				Xi	Xi	Xi	X						X					Xi
	VCP02	2(11)				X	X				Xi	Xi				Xi				Xi	Xi	Xi	Xi						Xi					Xi

Species caught during conventional fish community surveys within the sample locations are denoted with an X, representing WSP E&I and SEI fish community surveys 2020-2023.

Species inferred to be present within a sample location due to connectivity and proximity to sampled locations are denoted with a Xi with inferred richness presented within brackets.

2.12 Vegetation Communities and Wetlands

Baseline vegetation communities and wetlands were investigated to identify and assess the existing vegetative assemblages and habitat, including plant Species at Risk (SAR). Detailed methodology and results regarding vegetation communities are reported in the Terrestrial Baseline Report (Appendix K-1).

2.12.1 Vegetation Communities

The predominant regional vegetation community is coniferous forest. Coniferous forests vary widely in height, depending on age and may have open canopies or a closed canopy with very little vegetation underneath. Most areas are dominated by Black Spruce and Jack Pine. Black Spruce is more common in moister and more mature forests, whereas Jack Pine is more common in drier, rockier settings and areas regenerating from fires and logging. Small amounts of White Birch and Trembling Aspen may be mixed into coniferous forests.

Balsam Fir can be common in the sub-canopy and understory of coniferous forests but is rarely present in the canopy. Very dense coniferous forests are less common than less dense forests. Where canopies are heavily dominated by Black Spruce and Jack Pine, low shrubs like Sheep Laurel and Labrador Tea occur and overall species diversity tends to be relatively low. Low shrubs, including Labrador Tea and blueberries, are often abundant in the understory, while taller shrubs such as Green Alder are less common.

Ground layers of coniferous forest may have little plant growth besides moss, or they may support typical species where canopies are somewhat more open. Ground layer species include Bunchberry, clubmosses, Creeping Snowberry, Mountain Cranberry, Wild Sarsaparilla, and Twinflower.

Forests with a substantial component of deciduous trees are often present on the upper parts of slopes and the tops of ridges and occupy a smaller area and percentage of the investigation area. The height of deciduous and mixed communities varies depending on age and the communities typically have a relatively open canopy with abundant shrubs. Typical tree species in these forests include Trembling Aspen and White Birch often at higher densities than Black Spruce, White Spruce, Jack Pine and Balsam Fir. Red Maple and Black Ash were also found to be occasional to abundant in select areas.

For deciduous and mixed forests, the typical canopy compositions include forests dominated by Trembling Aspen, forests of White Birch mixed with Black Spruce or Jack Pine, or forests with a diverse mix of the species listed above. Understories tend to have dense growth of tall shrubs and small trees, especially Balsam Fir, Mountain and Red Maple, Beaked Hazel, and Speckled and Green Alder. Lower layers have a mix of low shrubs like Bush Honeysuckle and blueberries and herbaceous species like Wild Sarsaparilla, Bunchberry, Large-leaved Aster, Bracken Fern, and Bluebead Lily. The shrub layer is often dense, with typical species include blueberries, Bush Honeysuckle, Green Alder, Labrador Tea and Mountain Maple.

The ground layer in deciduous and mixed forests is typically dense and diverse. Moss is abundant, and typical plant species include Bluebead Lily, Bunchberry, Canada Mayflower, clubmosses, Mountain Cranberry, Twinflower and Wild Sarsaparilla.

Where logging has occurred, regenerating trees and shrubs are dominated by White and Black Spruce, Balsam Fir, Jack Pine, White Birch, Trembling Aspen, Pin Cherry, and Green and Speckled Alder. Low shrubs include blueberries and Wild Red Raspberry, and herbaceous plant growth is typically sparse.

Significant wildlife habitat and rare vegetation communities, relative to the Project location, are summarized in Figure 2.12-1.

2.12.2 Wetlands

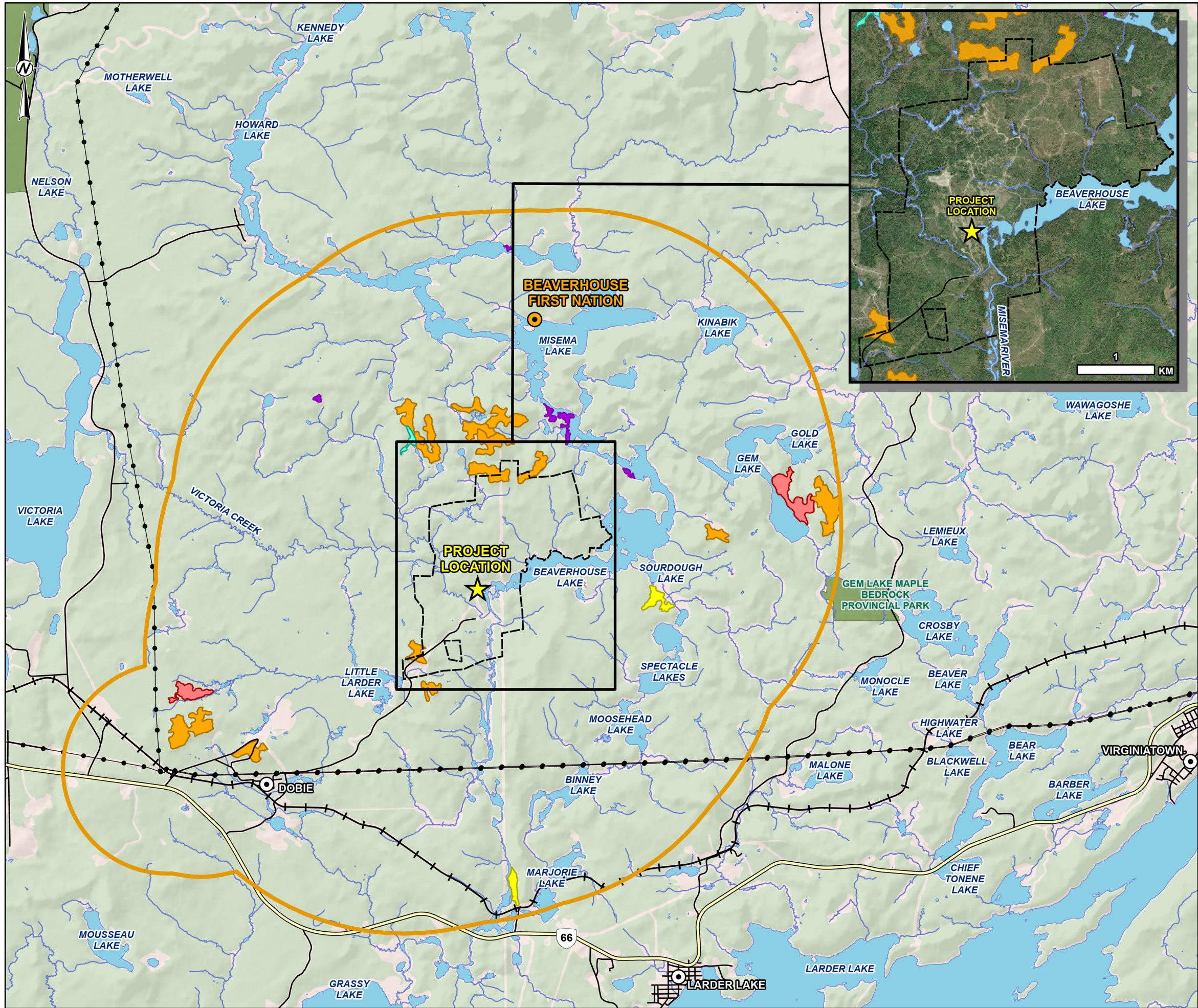
Baseline studies for terrestrial resources were conducted in 2021, 2022 and 2023 to support the Impact Statement. The wetland communities surveyed include swamps, marshes and fens. The geographic extent and presence of wetlands near the Project is shown in Figure 2.12-2.

Swamps that were investigated include communities dominated by coniferous trees or shrubs. Two types of swamps were present, including Conifer and Thicket. Conifer swamps have a canopy of Black Spruce and / or Tamarack, with shrubs including Speckled Alder and Labrador Tea, and a ground layer that may be dominated by moss, sedges, Dwarf Raspberry, and other species. Thicket swamps were heavily dominated by Speckled Alder, with Sweetgale, Canada Bluejoint and sedges in lower levels underneath the dense alders. A sparse canopy of trees, including Black Spruce, Tamarack, Balsam Fir and White Birch, can occur in thicket communities. Thicket swamps often occur along waterways, particularly streams, and as ecotones between Treed swamps and more open wetland types.

The marsh communities investigated were dominated by graminoid species such as Bluejoint, Canada Mannagrass, sedges and Broad-leaved Cattail. Two types of marsh communities were present, including Meadow and Shallow. They differ in their soil composition and the depth of seasonal water fluctuation. Meadow marshes are usually situated above the average water level with periodic flooding, while Shallow marshes are usually inundated most of the year but may exhibit some draw-down exposing soils during low water periods such as hot, dry summer months.

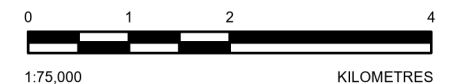
The shore fen community investigated in 2021 is dominated by Sphagnum mosses and sedges, with a sparse scattering of Tamarack, Black Spruce, Leatherleaf, and Speckled Alder. Two types of fen communities were present, including Shore and Sparse Treed. Shore fen communities do not have anchored soil and are a floating mat of vegetation and accumulated peat along waterways. The Sparse Treed fen communities are very similar but with higher tree cover, albeit stunted, and anchored organic soil that is often very deep. Shore fen communities also tend to have a higher cover of graminoids and other species requiring the higher nutrient availability provided by the waterway they abut. In comparison, Sparse Treed fens tend to have higher cover of ericaceous shrubs due to their low nutrient requirements.

PATH: S:\Clients\Agnico_Eagle\Upper_Beaver\0025_15_Sealton\CA0042150_6518_0025_CML_0000\CA0042150_6518_0025_CML_0000.aprx PRINTED ON: AT: 1:46:21 PM



LEGEND

- ★ PROJECT LOCATION
- ▭ PROPERTY BOUNDARY
- ▭ BASELINE VEGETATION COMMUNITY
- ▭ REGIONAL INVESTIGATION AREA
- TOWN / COMMUNITY
- FIRST NATION COMMUNITY
- ▭ PROVINCIAL PARK
- ▬ HIGHWAY
- ▬ LOCAL ROAD
- ▬ RAILWAY
- ▬ TRANSMISSION LINE
- ▬ WATERCOURSE
- ▭ WATERBODY
- ▭ ROCK BARREN
- RARE TREED TYPE**
- ▭ RED AND SUGAR MAPLE STANDS
- ▭ BLACK ASH STANDS
- ▭ RED AND WHITE PINE STANDS
- ▭ HARDWOOD SWAMP



NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. WATERBODIES AND WATERCOURSE EXTRACTED FROM LIO, MNRF AND MODIFIED TO MATCH SITE PLAN LAYOUT PROVIDED BY AGNICO EAGLE MINES; TO BE FIELD CONFIRMED.
3. COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N

CLIENT

AGNICO EAGLE MINES

PROJECT

UPPER BEAVER GOLD PROJECT

TITLE

SIGNIFICANT WILDLIFE HABITAT RARE VEGETATION COMMUNITIES

CONSULTANT



YYYY-MM-DD	2026-08-05
DESIGNED	----
PREPARED	MD
REVIEWED	----
APPROVED	----

PROJECT NO.

CA0042150.6518

CONTROL

0025

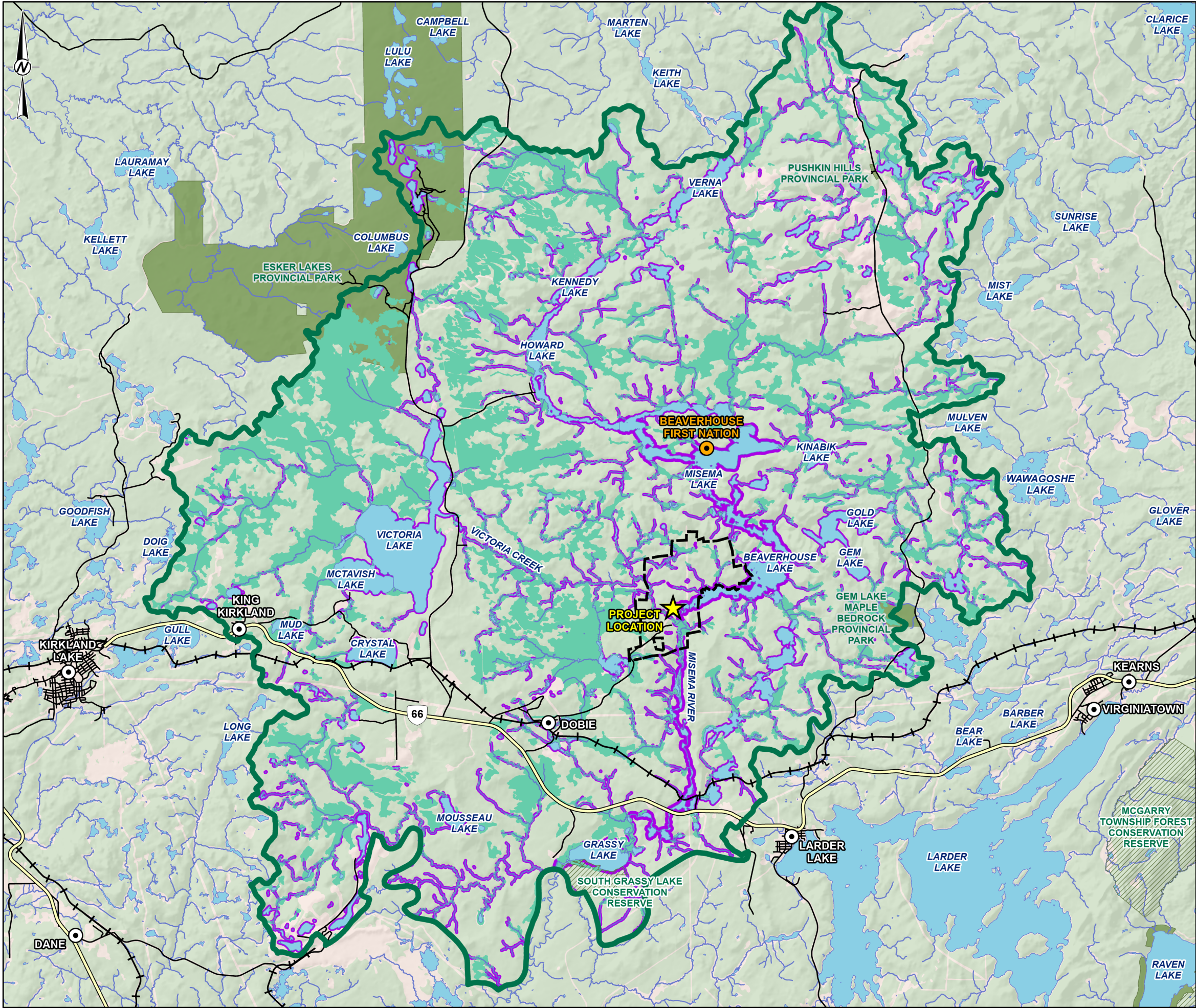
REV.

A

FIGURE

2.12-1

25mm IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B



LEGEND

- ★ PROJECT LOCATION
- ▬ PROPERTY BOUNDARY
- REGIONAL STUDY AREA FOR SPECIES AT RISK
BATS, BIRDS AND OTHER WILDLIFE
- RIPIARIAN AREAS
- WETLAND AREAS
- TOWN / COMMUNITY
- FIRST NATION COMMUNITY
- CONSERVATION RESERVE
- PROVINCIAL PARK
- HIGHWAY
- LOCAL ROAD
- RAILWAY
- WATERCOURSE
- WATERBODY

0 1.25 2.5 5
1:127,000 KILOMETRES

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. WATERBODIES AND WATERCOURSE EXTRACTED FROM LIO, MNRF AND MODIFIED TO MATCH SITE PLAN LAYOUT PROVIDED BY AGNICO EAGLE MINES; TO BE FIELD CONFIRMED.
3. COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N

CLIENT
AGNICO EAGLE MINES

PROJECT
UPPER BEAVER GOLD PROJECT

TITLE
RIPIARIAN AREAS AND WETLANDS

CONSULTANT	YYYY-MM-DD	2026-06-10
DESIGNED	----	
PREPARED	MD	
REVIEWED	----	
APPROVED	----	

PROJECT NO.
CA0042150.6518

CONTROL
0025

REV.
A

FIGURE
2.12-2

PATH: S:\Clients\Agnico_Eagle\Upper_Beaver\0025_15_Section\CA0042150.6518_0025_CML_0000\CA0042150.6518_0025_CML_0000.aprx PRINTED ON: AT 12:45:50 PM

25mm IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

2.13 Migratory Birds, Moose and Other Wildlife

2.13.1 Birds

The terrestrial baseline program (Appendix K-1) used multiple complementary survey methods to characterize bird species presence, abundance, distribution and habitat use across a range of temporal and ecological contexts as well as identified SAR. Together, these data provide a robust and well-supported understanding of the bird species within the investigation area. Key findings are as follows:

- **Breeding Bird Surveys:** documented 73 species in 2021, 67 species in 2022 and 87 species in 2023, for a total of 104 species. The most frequently recorded species were White-throated Sparrow, Red-eyed Vireo, Nashville Warbler, Veery, Ovenbird, American Robin, Magnolia Warbler, Chestnut-sided Warbler, Swainson's Thrush and Northern Parula.
- **Crepuscular Bird Surveys:** documented Common Nighthawk generally northwest of Dobie and north of Larder Lake. Common Nighthawks were also found during other surveys and appear to be a common nesting bird in the investigation area where appropriate habitat exists. No Eastern Whip-poor-will were documented during Crepuscular Bird Surveys.
- **Marsh Bird Surveys:** documented the presence of three focal species including American Bittern, Sora, and a possible Yellow Rail. Other species documented included Bufflehead, Canada Goose, Hooded Merganser, Mallard, Red-winged Blackbird, Ring-necked Duck, Sandhill Crane, Wilson's Snipe, Wood Duck, Common Yellowthroat, Great Blue Heron, Northern Waterthrush, and Swamp Sparrow. American Bittern, Lesser Yellowlegs, Sora, Virginia Rail, and Pied-billed Grebe were captured by autonomous recording units (ARUs) in 2023.
- **Nocturnal Owl Surveys:** documented three Boreal Owls in May 2021. Boreal Owl was also documented during Migratory Bird Surveys in May 2021 and during ARU surveys at one station in May and July 2023. Long-eared Owl was also detected by ARUs at four stations between late July and late September 2023.
- **Stick Nest Surveys:** found three nests, only one of which could be identified to species (Bald Eagle). The Bald Eagle nest was found on the shore of Larder Lake near Virginiatown, where a single Bald Eagle was seen flying in the area. A messy nest made of large and loose sticks was found in the northeast corner of the aerial survey study area, roughly 14 km north of Virginiatown. A possible American Goshawk nest was found on the south shore of Victoria Lake. No stick nests were documented during the 2023 aerial surveys.
- **Migratory Bird Surveys:** documented 62 species in 2021, 19 in May 2022 during waterfowl surveys with another 50 species as incidental (i.e., not waterfowl), 62 in September 2022, 33 in May 2023, and 74 in September 2023, for a total of 102 unique species of birds. Of these 102 species, two Special Concern species under the federal *Species at Risk Act* and the provincial *Species Conservation Act* were noted: Evening Grosbeak and Rusty Blackbird. One provincially Threatened bird, Lesser Yellowlegs, was observed. Migratory bird surveys did not find any particular areas of significant migratory bird concentrations, and no important habitat for migratory birds was identified.

Shorebirds seen during migration throughout the investigation area include American Woodcock, Greater Yellowlegs, Wilson's Snipe, Least Sandpiper, Semipalmated Plover, Solitary Sandpiper and Spotted Sandpiper. Lesser Yellowlegs, Spotted Sandpiper, Wilson's Snipe and Greater Yellowlegs were observed using Little Larder Lake in 2022 and / or 2023.

ARU data analysis detected 118 unique species of birds and 8 SAR bird species including Canada Warbler, Common Nighthawk, Eastern Meadowlark, Eastern Wood-pewee, Evening Grosbeak, Lesser Yellowlegs, Olive-sided Flycatcher and Rusty Blackbird. White-throated Sparrow, Red-eyed Vireo, Nashville Warbler, Magnolia Warbler, and Northern Parula were the most recorded species. Species which have only been documented with ARUs include Eastern Wood-pewee, Eastern Meadowlark, American Tree Sparrow, Barred Owl, Bohemian Waxwing, Boreal Chickadee, Common Redpoll, Connecticut Warbler, Eastern Bluebird, Eastern Kingbird, Great Horned Owl, Indigo Bunting, Least Sandpiper, Long-eared Owl, Pine Grosbeak, Sedge Wren, Semipalmated Plover, Snow Bunting, Pine Warbler, Northern Saw-whet Owl and Olive-sided Flycatcher.

Discussion of species of conservation concern, including SAR, is provided in Section 2.14.

2.13.2 Moose

Moose were documented during aerial surveys as part of the terrestrial baseline program and incidentally during other survey types (Appendix K-1). During the 2021 aerial surveys, four Moose, two cows and two bulls, were observed, and Moose signs were observed frequently. During the March 2023 aerial surveys, 12 bulls, 35 cows, 22 calves, 2 unknown adults and 22 not-classified individuals were documented. Moose were associated with early successional habitats created by anthropogenic activities such as forestry and mining, and relatively high Moose density areas were found in several pockets within the aerial survey boundaries.

Additionally, seven Moose Aquatic Feeding Habitat (MAFA) were evaluated, and 29 MAFA were visited during baseline studies. Generally, conditions reflected the existing rankings. Two of the MAFAs surveyed, MAFA3 and MAFA4, were of moderate quality, while the remaining five surveyed areas are of high to very high quality.

2.13.3 Other wildlife

2.13.3.1 Mammals

A variety of mammal species have been documented in the investigation area, including Canada Lynx, Red Fox, Black Bear, Mustelids (North American River Otter, American Marten, Fisher, and Least Weasel), Snowshoe Hare, Red Squirrel, Raccoon, Striped Skunk, Wolf, Woodchuck and Beaver. In addition to species and individuals documented during the wildlife camera traps, incidental observations have occurred. In addition, Agnico Eagle employees have recorded and reported wildlife sightings.

A variety of other mammals likely occur in the area, such as rodents, shrews, moles, Muskrat, and Porcupine. The Project is not within the Caribou range for Ontario, nor are Caribou reported in the investigation area. Local community members have shared nine Cougar sightings in the region with Agnico Eagle, with the most recent in winter 2022 and 2023 on Highway 112. Baseline studies for the Project have no recorded sightings or signs of Cougar.

Bat baseline studies conducted from 2021 to 2023 included maternity habitat assessments, acoustic monitoring and evaluations of abandoned mine features for overwintering potential. A total of 183 plots were surveyed for maternity roosting habitat, with findings indicating that all assessed treed ecosites provided suitable snag and cavity conditions. Acoustic surveys identified Silver-haired Bat and Hoary Bat as the most frequently recorded species, with additional detections of Little Brown Myotis and Eastern Red Bat. Although not detected in recent years, Northern Myotis has previously been confirmed within the investigation area.

Assessments of 79 abandoned mine features identified 65 sites that may be suitable as hibernacula and were further investigated. Most of these sites were dismissed as hibernacula due to flooding, backfilling, or lack of access to underground workings. ARUs were deployed at sites where overwintering suitability could not be ruled out, and monitoring from 2021 to 2023 confirmed two hibernacula within the investigation area: M71 and Dobie Mine-1. However, further investigation of site data subsequent to the 2023 hibernacula acoustic surveys confirmed that Dobie Mine-1 is unsuitable for hibernation due to flooding and that the higher activity level observed is more likely to stem from elevated foraging and drinking activity by bats as the standing water and surrounding vegetation provide optimal foraging habitat.

2.13.3.2 Reptiles and Amphibians

Turtle basking surveys, amphibian call surveys and incidental observations identified common Boreal reptiles and amphibians within the investigation area. No targeted surveys were conducted for salamanders and newts, but Blue-spotted Salamander, Eastern Red-backed Salamander and Red-spotted Newt were observed incidentally. Targeted turtle basking surveys were completed, and no turtles were documented. However, Snapping Turtle and Midland Painted Turtle could occur in the area.

No targeted surveys for snakes occurred; however, three snake species were documented incidentally during field surveys: Eastern Gartersnake, Smooth Greensnake, and DeKay's Brownsnake.

Based on the results of amphibian call surveys, American Toad, Green Frog, and Spring Peeper are ubiquitous wherever suitable habitat is present. Additionally, Boreal Chorus Frog, Green Frog, Mink Frog, Northern Leopard Frog, Spring Peeper and Wood Frog were documented incidentally throughout the investigation area. American Toad, Boreal Chorus Frog, Green Frog, Mink Frog, Northern Leopard Frog, Spring Peeper and Wood Frog were heard during amphibian call surveys and / or bird ARU track transcription.

2.14 Species at Risk

Observations of species of conservation concern, including SAR, relative to the Project location are shown in Figure 2.14-1. Detailed methodology and information regarding federal or provincial SAR within the investigation area are reported in the Terrestrial Environment Baseline Report (Appendix K-1).

Little Brown Myotis and Northern Myotis were observed within the investigation area during baseline studies. Additionally, within the baseline investigation area, Barn Swallow, Bank Swallow and Peregrine Falcon sightings have been reported by others in the baseline investigation area. Public observations of Cougar have been documented in the vicinity of the Project, most recently in 2023.

Ten avian federal or provincial SAR were observed within the investigation area during baseline studies including Canada Warbler, Common Nighthawk, Eastern Meadowlark, Eastern Whip-poor-will, Eastern Wood-pewee, Evening Grosbeak, Lesser Yellowlegs, Olive-sided Flycatcher, Rusty Blackbird and Yellow Rail. Additionally, Barn Swallow, Bank Swallow and Peregrine Falcon sightings have been reported in the investigation area.

No reptile or amphibian federal or provincial SAR were observed during baseline studies; however, Snapping Turtle and Midland Painted Turtle may occur as potentially suitable habitat was identified and their range overlaps with the investigation area.

No insect federal or provincial SAR were observed during baseline studies; however, Yellow-banded Bumble Bee may occur as suitable habitat was identified, and the Natural Heritage Information Centre holds an element occurrence in the investigation area.

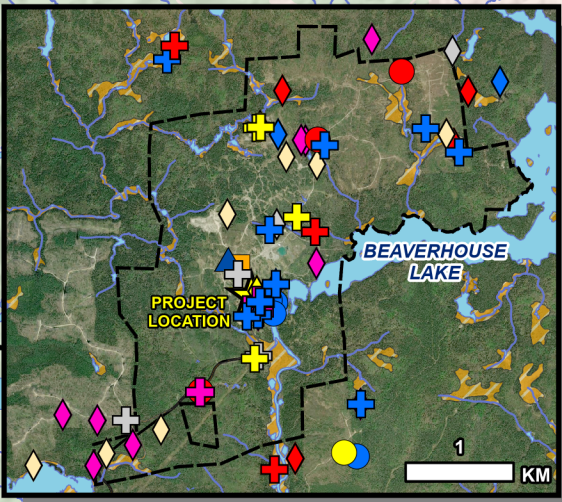
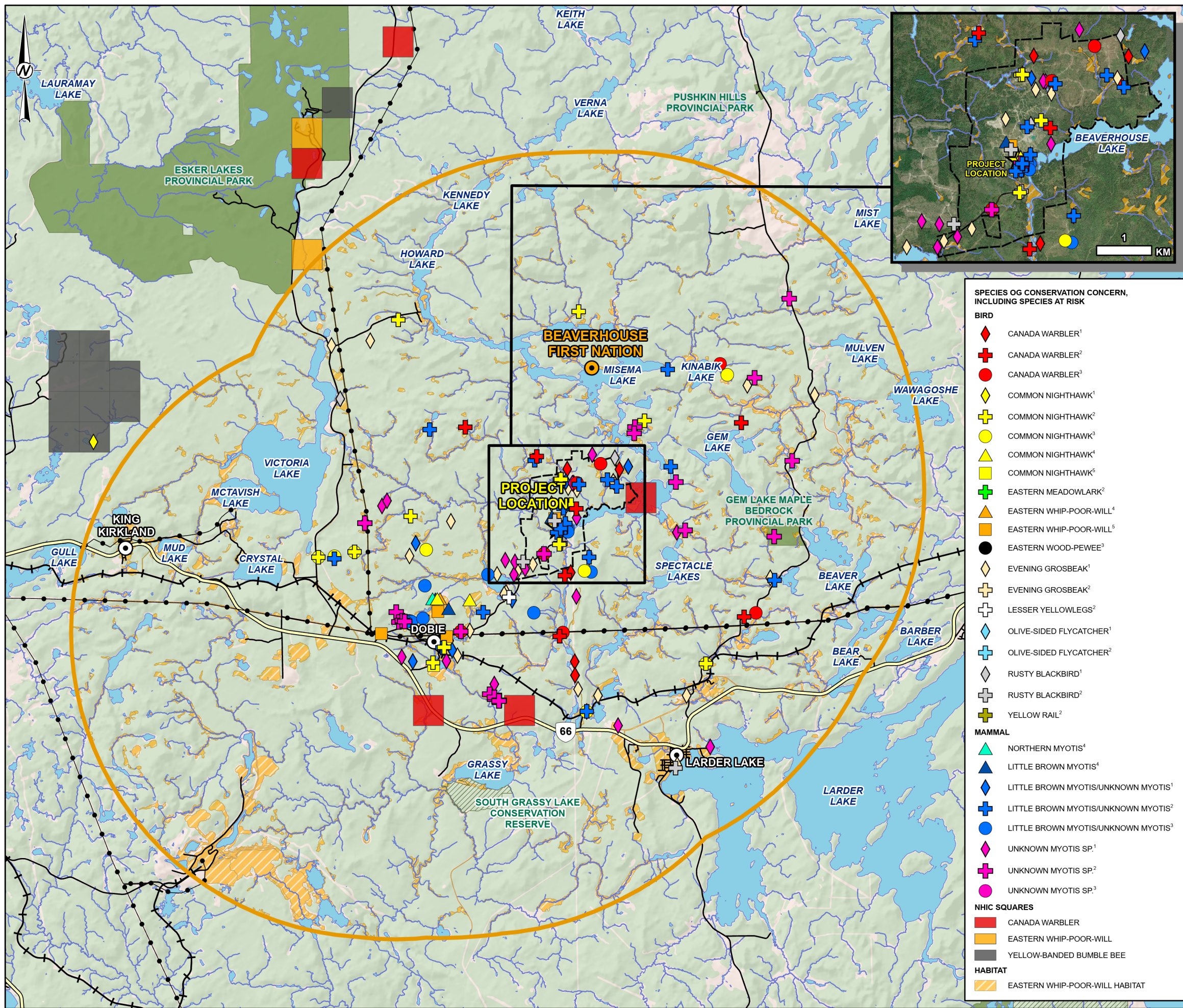
There were no fish or plant federal or provincial SAR identified through the field programs within and near the Property. Locations of the federal or provincial SAR observed or otherwise identified as present are summarized in Figure 2.14-1.

Table 2.14-1: Summary of Species of Conservation Concern

Species	Presence in Investigation Area	Federal Status (SARA)	Provincial Status (SCA)
Barn Swallow	Reported ¹	Threatened	Special Concern
Bank Swallow	Reported ¹	Threatened	Threatened
Peregrine Falcon	Reported ¹	Special Concern	Special Concern
Canada Warbler	Observed	Threatened	Special Concern
Common Nighthawk	Observed	Special Concern	Special Concern
Eastern Meadowlark	Observed	Threatened	Threatened
Eastern Whip-poor-will	Observed	Threatened	Special Concern ²
Eastern Wood-pewee	Observed	Special Concern	Special Concern
Evening Grosbeak	Observed	Special Concern	Special Concern
Lesser Yellowlegs	Observed	Not listed ³	Threatened
Olive-sided Flycatcher	Observed	Special Concern	Special Concern
Rusty Blackbird	Observed	Special Concern	Special Concern
Yellow Rail	Observed	Special Concern	Special Concern
Little Brown Myotis	Observed	Endangered	Endangered
Northern Myotis	Observed	Endangered	Endangered
Cougar	Public observations ⁴	Not listed	Special Concern
Snapping Turtle	Not observed ⁵	Special Concern	Special Concern
Midland Painted Turtle	Not observed ⁵	Not listed	Special Concern
Yellow-banded Bumble Bee	Not observed ⁶	Special Concern	Special Concern

Notes:

1. Reported by others in the investigation area.
2. Downgraded to Special Concern under COSSARO in 2023.
3. Listed as Threatened under COSEWIC and SARA listing is pending.
4. Observations reported by the members of the public in the vicinity, most recently in 2023.
5. Not observed in the investigation area, but suitable habitat for the species exists in the investigation area.
6. Not observed in the investigation area, but NHIC records exist for the investigation area; suitable habitat for the species exists in the investigation area.



SPECIES OF CONSERVATION CONCERN, INCLUDING SPECIES AT RISK

BIRD

- Canada Warbler¹
- Canada Warbler²
- Canada Warbler³
- Common Nighthawk¹
- Common Nighthawk²
- Common Nighthawk³
- Common Nighthawk⁴
- Common Nighthawk⁵
- Eastern Meadowlark²
- Eastern Whip-Poor-Will¹
- Eastern Whip-Poor-Will⁵
- Eastern Wood-Pewee³
- Evening Grosbeak¹
- Evening Grosbeak²
- Lesser Yellowlegs²
- Olive-sided Flycatcher¹
- Olive-sided Flycatcher²
- Rusty Blackbird¹
- Rusty Blackbird²
- Yellow Rail²

MAMMAL

- Northern Myotis⁴
- Little Brown Myotis⁴
- Little Brown Myotis/Unknown Myotis¹
- Little Brown Myotis/Unknown Myotis²
- Little Brown Myotis/Unknown Myotis³
- Unknown Myotis SP.¹
- Unknown Myotis SP.²
- Unknown Myotis SP.³

NHIC SQUARES

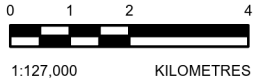
- Canada Warbler
- Eastern Whip-Poor-Will
- Yellow-banded Bumble Bee

HABITAT

- Eastern Whip-Poor-Will Habitat

LEGEND

- PROJECT LOCATION
- PROPERTY BOUNDARY
- BASELINE WILDLIFE AND WILDLIFE HABITAT / SPECIES AT RISK BIRDS / SPECIES AT RISK BAT REGIONAL INVESTIGATION AREA
- TOWN / COMMUNITY
- FIRST NATION COMMUNITY
- CONSERVATION RESERVE
- PROVINCIAL PARK
- HIGHWAY
- LOCAL ROAD
- RAILWAY
- TRANSMISSION LINE
- WATERCOURSE
- WATERBODY



NOTE(S)

- 1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

- 1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
- 2. WATERBODIES AND WATERCOURSE EXTRACTED FROM LIO, MNRF AND MODIFIED TO MATCH SITE PLAN LAYOUT PROVIDED BY AGNICO EAGLE MINES; TO BE FIELD CONFIRMED.
- 3. SPECIES OF CONSERVATION CONCERN, INCLUDING SPECIES AT RISK SOURCES
 - ¹WSP, 2023
 - ²WSP, 2022
 - ³WSP, 2021
 - ⁴STORY ENVIRONMENTAL INC., 2018
 - ⁵AZIMUTH ENVIRONMENTAL CONSULTING, 2013
- 4. NATURAL HERITAGE INFORMATION CENTRE (NHIC) 1 KM GRID, ONTARIO MINISTRY OF NATURAL RESOURCES, 2024.
- 5. COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N

CLIENT

AGNICO EAGLE MINES

PROJECT

UPPER BEAVER GOLD PROJECT

TITLE

SPECIES OF CONSERVATION CONCERN, INCLUDING SPECIES AT RISK

CONSULTANT	YYYY-MM-DD	2026-06-11
DESIGNED	----	
PREPARED	MD	
REVIEWED	----	
APPROVED	----	

PROJECT NO. CA0042150.6518 CONTROL 0025 REV. A FIGURE 2.14-1

2.15 Social Environment

A socioeconomic baseline conditions study was completed to document the social, economic and health conditions for Indigenous Nations and municipalities which could potentially experience effects as a result of the proposed Project. The study examined key indicators such as population and demographic characteristics, economic conditions, and community services and infrastructure, including education, health care, utilities, and transportation. Detailed methodologies, data sources, and full results are provided in the Socioeconomic Baseline Report (Appendix N-1).

A summary of the social environment for the following Indigenous Nations and municipalities is provided below:

- Apitipi Anicinapek Nation (AAN)
- Beaverhouse First Nation (BHFN)
- Kebaowek First Nation (KFN)
- Long Point First Nation (LPFN)
- Matachewan First Nation (MFN)
- Taykwa Tagamou Nation (TTN)
- Temagami First Nation (TemFN)
- Timiskaming First Nation (TFN)
- Métis Nation of Ontario – Region 3 (MNO)
- Township of Gauthier (Dobie)
- Town of Kirkland Lake
- Township of Larder Lake
- Ville de Rouyn-Noranda
- City of Timmins
- District of Timiskaming.

The sections below provide a community overview and summary description of the socioeconomic baseline conditions study; with additional detailed discussion presented in Appendix N-1.

2.15.1 Apitipi Anicinapek Nation

AAN, formerly known as Wahgoshig First Nation, signed to Treaty No. 9, also known as the James Bay Treaty, on June 7, 1906. AAN governs itself through a custom electoral system outlined in its Governance and Custom Election Code, affirming its inherent right to autonomous and culturally grounded political processes. Current leadership includes Chief Juliet June Mary Black, supported by Deputy Chief Christopher James Sackaney and a council of elected representatives. As of January 2026, the registered population for AAN is 477 members with approximately two-thirds living off-reserve. AAN is affiliated politically with both the Algonquin Anishinabeg Tribal Council (Québec) and the Nishnawbe Aski Nation (Ontario).

AAN is supported by community-managed governance and a range of internal programs and services delivered through multiple departments, with access provided via Highway 101 to the Abitibi 70 reserve. Available information highlights that these services are currently constrained, with identified needs across childcare, housing, health services, education, infrastructure, and community facilities, alongside priorities for expanded capacity, additional facilities, and culturally appropriate programming to support community well-being.

According to the 2021 Census, there were 155 individuals living on the Abitibi 70 reserve, of which 85 identified as men+ and 70 identified as women+. The average age was 36 (39.6 for men+ and 32 for women+) and the median age was 32.8 (36 for men+ and 24.8 for women+), lower than the provincial average and median ages of 41.8 and 41.6, respectively. The reported population in Abitibi 70 increased by 8.3% between the 2016 Census and 2021 Census, higher than the provincial average of 5.8% (StatCan 2017a, 2023a).

In 2021, 52% of the total reported population 15 years and over did not have a certificate, diploma, or degree (50.0% of men+ and 41.7% of women+), 12% of the population 15 years and over reported a secondary school diploma or equivalency certificate as their highest educational attainment (14.3% of men+ and 16.7% of women+), 20% reported an apprenticeship or trades certificate or diploma (21.4% of men+ and 16.7% women) and 16% reported a college or non-university certificate (14.3% of women+ and 25% of men+; StatCan 2023a).

AAN land use is characterized by extensive and ongoing traditional use, including hunting, fishing, trapping, plant gathering, and cultural activities across a network of sites and travel routes. Use is concentrated in key areas such as along Highway 101 south of the reserve, and east of Highway 672, with overlapping cultural, harvesting, and ecological uses reflecting long-standing patterns of occupancy and resource use. Land-based activities include the harvesting of species such as moose, walleye, northern pike, partridge, rabbit, and berries for both personal and commercial use, supporting food security, cultural practices, and intergenerational knowledge transfer (AAN 2026a, b).

2.15.2 Beaverhouse First Nation

BHFN has a settlement on the Misema River, Misemakwish, approximately 5 km north of the Project site. There is no direct road access, and the settlement is only accessible by boat in the summer and snow machine in the winter. BHFN members use their historical settlement at Indian Point on Misema Lake on a year-round basis (Avaanz 2025). While Treaty No. 9 originally excluded the Beaverhouse community, BHFN was recognized by the Canadian Government as a Rights-bearing First Nation in April 2022, as defined by Section 35 of the *Constitution Act*, 1982, capping a decades-long process. BHFN is a member of the Wabun Tribal Council (Wabun Tribal Council 2023c).

BHFN is supported by a range of community-led programs and services, including cultural programming, youth and family support, food security initiatives, and access to health, recreation, and employment services through partnerships in nearby communities such as Kirkland Lake. Available information indicates that service delivery is influenced by limited local infrastructure and access constraints to the Settlement, with reliance on external facilities for health care, recreation, and emergency services, and identified needs related to expanding on-reserve services, infrastructure, and community capacity.

In 2024, BHFN membership was higher in the men+ category at 51.7% than in the women+ category at 48.3% (Avaanz 2025).

Most BHFN members have attained elementary or high school education levels. Challenges have been identified by the community regarding pursuing education in terms of experiences of residential schools, lack of financial support for post-secondary education, and resources for special education needs falling short. BHFN has identified that historical limitations in access to relevant funding affected its ability to provide education and training opportunities (Avaanz 2025).

Land use for BHFN is characterized by ongoing traditional use across a network of culturally significant sites and waterways, including the Misemakwish Settlement and Indian Point, which are used year-round for ceremony, cultural activities, and community gatherings. Land-based activities include hunting (e.g., moose, rabbit, beaver, partridge), fishing (e.g., pickerel (walleye), trout, pike), trapping, plant and medicinal gathering, and wood harvesting for crafting, reflecting a mixed traditional and subsistence economy. Use of the land is supported by extensive travel and access across lakes, rivers, and portage routes throughout the region, with key waterbodies such as Misema Lake, Joyce Lake, Dorothy Lake, and related river systems supporting fishing, harvesting, and cultural use (Avaanz 2025).

2.15.3 Kebaowek First Nation

KFN is an Algonquin community located in western Quebec on the shores of Lake Kipawa, approximately 10 km from the Town of Temiscaming and 164 km south of the Project site. The community is accessible from the west via North Bay, Ontario using Highway 63 and from the north via Ville-Marie, Quebec, using Highway 101 (KFN 2026).

As of January 2026, the registered population of KFN totals 1,301 members, with the majority (approximately 77%) living off-reserve. The on-reserve population includes 288 residents (141 males and 147 females), while the remainder resides in other communities or outside reserve lands.

According to the 2021 Census, there were 325 individuals living on the Kebaowek Reserve, of which 155 identified as men+ and 170 identified as women+. The average age was 45.5 (45.6 for men+ and 45.2 for women+) and the median age was 49.6 (50 for men+ and 49.6 for women+), which is slightly higher than the provincial rates. The reported population in Kebaowek Reserve increased by 18.2% between the 2016 Census and 2021 Census (StatCan 2017b, 2023f).

In 2021, 32.8% of the population aged 15 years and over on Kebaowek First Nation Reserve reported having no certificate, diploma, or degree (39.3% of men+ and 26.7% of women+) and, 20.7% of individuals reported a secondary (high) school diploma or equivalency certificate as their highest level of educational attainment (10.7% of men+ and 30.0% of women+). Apprenticeship or trades certificates or diplomas were reported by 10.3% of individuals in 2021 (17.9% of men+ and 6.7% of women+), 31.0% of individuals reported a college or non-university certificate (25.0% of men+ and 33.3% of women+), a university certificate below the bachelor level was reported by 7.1% of men+ and 3.4% of individuals reported a bachelor's degree or higher (0.0% of men+ and 6.7% of women+) (StatCan 2023f).

KFN's reserve lands function as an important cultural and administrative centre, supporting community programs, services and governance. KFN is affiliated with the Algonquin Anishinabeg Tribal Council in Québec (AANTC 2026).

KFN is supported by community infrastructure including a health centre providing medical and mental wellness services, a childcare centre, education programming, and community support services, with additional cultural infrastructure planned through the Anicinabe Mikana Cultural Centre. Based on the available information, social infrastructure includes locally delivered health, education, and family support programs; however, limited information is available regarding broader service capacity, recreation amenities, and municipal infrastructure.

Land use information was not available at the time of preparation of this report.

2.15.4 Long Point First Nation

LPFN, located near Lac Simard on the Winneway River in Quebec and approximately 225 km southeast of the Project, has been relocated twice due to flooding and development pressures.

LPFN is supported by community infrastructure including a community centre, childcare and education services, health and wellness programming, housing services, and cultural, language, and recreation programs delivered through community departments. Available information indicates that community services include locally delivered health, education, and social supports, with additional reliance on regional services, and includes core infrastructure such as water and wastewater systems, although limited information is available for some service areas and broader municipal infrastructure.

As of January 2026, LPFN's registered population totals 982 members, most of whom reside either on their own Crown land or off-reserve. According to the 2021 Census, there were 175 individuals living on the LPFN Reserve, of which 75 identified as men+ and 100 identified as women+. The average age was 31.2 (33.0 for men+ and 33.0 for women+) and the median age was 25.0 (28.2 for men+ and 20.6 for women+) (StatCan 2017c, 2023c). The reported population in LPFN Reserve increased between the 2016 Census and 2021 Census from 105 people to 175 people (StatCan 2017c, 2023c).

In 2021, 40.0% of the total population 15 years and over did not have a certificate, diploma, or degree (41.7% of men+ and 38.5% of women+), 12.0% of the population 15 years and over reported a secondary school diploma or equivalency as their highest educational attainment (0.0% of men+ and 15.4% of women+), 24.0% reported an apprenticeship or trades certificate or diploma (41.7% of men+ and 15.4% of women+), 12.0% reported a college or non-university certificate (0.0% of men+ and 23.1% of women+) and 0.0% reported a Bachelor's degree or higher (StatCan 2023c).

Land use information was not available at the time of preparation of this report.

2.15.5 Matachewan First Nation

MFN is an Ojibwe and Cree band and is a signatory to Treaty No. 9. The MFN reserve, Matachewan 72, is located approximately 62 km west of the Project site, off Highway 66. MFN holds membership in the Wabun Tribal Council (Wabun Tribal Council 2023c). Additionally, MFN is affiliated with the Nishnabe-Aski Nation (Nishnawbe Aski Nation 2020).

MFN is supported by community infrastructure including a health centre, education supports with busing to nearby schools, housing services, and community programs focused on family well-being, cultural activities, and employment training. Available information indicates that services are delivered through local departments (e.g., health, education, housing, and public works) and regional partnerships, with core infrastructure including road access, water and

wastewater systems, and solid waste services, although limited information is available for recreation services and some service areas.

According to the 2021 Census, there were 65 individuals living on the Matachewan 72 reserve, of which 35 identified as men+ and 35 identified as women+. The average age was 45.0 (42.0 for men+ and 48.0 for women+) and the median age was 49.2 (49.2 for men+ and 50.0 for women+), higher than the provincial average and median ages of 41.8 and 41.6, respectively. The reported population in Matachewan 72 increased by 8.2% between the 2016 Census and 2021 Census, higher than the provincial average of 5.8% (StatCan 2017d; 2023d).

In 2021, 50.0% of the total reported population 15 years and over did not have a certificate, diploma, or degree (33.3% of men+ and 66.7% of women+), 16.7% of the population 15 years and over reported a secondary school diploma or equivalency certificate as their highest educational attainment, 16.7% reported an apprenticeship or trades certificate or diploma; 16.7% reported a college or non-university certificate, and 16.7% reported a Bachelor's degree or higher (StatCan 2023d).

MFN land use reflects ongoing and historically continuous use of the land for cultural, subsistence, and teaching activities, including habitation, gathering, harvesting, and ceremonial practices across a network of sites. Identified land use features include cabins, campsites, burial sites, and locations for harvesting firewood and processing resources, as well as culturally significant elements such as rock markings, place names, and an eagle nest, indicating long-standing connections to the land. Land use is closely tied to intergenerational knowledge transfer, with activities such as hunting, fishing, and resource processing serving as key teaching practices that support cultural continuity, community identity, and ongoing use of traditional lands (MFN 2023).

2.15.6 Taykwa Tagamou Nation

TTN is an Ojibway and Cree community with reserves at New Post 69 and New Post 69A near Cochrane, Ontario and occupies traditional territory within the Moose River basin. TTN is a member of both the Mushkegowuk Council and Nishnawbe Aski Nation.

TTN is supported by a range of community infrastructure including recreation facilities (e.g., community centre, gymnasium, skating rink), community programs, health and wellness services, education supports, housing, and cultural programming. Available information indicates that services are delivered through community departments and include health programming, cultural and recreation activities, social supports, and core infrastructure such as road access, water and wastewater systems, and communications, with additional planned or ongoing development in areas such as energy infrastructure.

As of January 2026, TTN's registered population ranges between approximately 680 and 710 members, with about one-fifth living on reserve.

According to the 2021 Census, there were 125 individuals living on TTN, of which 70 identified as men+ and 60 identified as women+. The average age was 34 (33.5 for men+ and 34.5 for women+) and the median age was 31.8 (31.2 for men+ and 32.8 for women+) (StatCan 2017e, 2023e). The reported population in TTN New Post 69A reserve had an increase of 31.6% between the 2016 Census and 2021 Census (StatCan 2017e, 2023e).

In 2021, 36.8% of the total reported population 15 years and over did not have a certificate, diploma, or degree (40.0% of men+ and 30.0% of women+), 26.3% of the population 15 years and over reported a secondary school diploma or equivalency certificate as their highest

educational attainment, 10.5% reported an apprenticeship or trades certificate or diploma, 21.1% reported a college or non-university certificate and 10.5% reported a Bachelor's degree or higher (StatCan 2023e).

Land use information was not available at the time of preparation of this report.

2.15.7 Temagami First Nation

TemFN is located on Bear Island in Lake Temagami, approximately 88.5 km northeast of North Bay. Governance is structured through both the Temagami First Nation Band Council and the Teme-Augama Anishnabai Council, which differ in their membership criteria.

TemFN is supported by community infrastructure including health, education, cultural, and recreation facilities such as the Doreen Potts Health Centre, Laura McKenzie Learning Centre, and community buildings that support cultural activities and events. Available information indicates that the community has local health and wellness programs, childcare and family services, and cultural and recreational amenities, with additional reliance on off-reserve services for secondary and post-secondary education, as well as transportation and infrastructure systems including seasonal access routes, water and wastewater systems, and regional transit connections.

TemFN follows the *Indian Act* electoral system, and as of January 2026, has a registered population of roughly 2,451 members, about 20.8% of whom reside on Bear Island.

According to the 2021 Census, there were 245 individuals living on the TemFN Reserve 222, of which 135 identified as men+ and 110 identified as women+. The average age was 31.6 (29.3 for men+ and 34.8 for women+) and the median age was 26.6 (21.2 for men+ and 32.8 for women+) (StatCan 2017f, 2023f). The reported population in Temagami First Nation Reserve had an increase of 63.6% between the 2016 Census and 2021 Census (StatCan 2017f, 2023f).

In 2021, 35.3% of the total reported population 15 years and over did not have a certificate, diploma, or degree (37.5% of men+ and 35.3% of women+), 26.5% of the population 15 years and over reported a secondary school diploma or equivalency certificate as their highest educational attainment (31.3% of men+ and 23.5% of women+) and 35.3% reported a college or non-university certificate (37.5% of men+ and 35.3% of women+) (StatCan 2023f).

2.15.8 Timiskaming First Nation

The TFN reserve is located approximately 61 km southeast of the Project site, adjacent to the municipality of Notre-Dame-du-Nord in Quebec. TFN's traditional territory includes land in Ontario and Quebec. TFN is supported by community infrastructure including a health and wellness centre, youth centre, elementary school, housing services, and community facilities that support cultural programming and recreation. Available information indicates that services include locally delivered health, education, and social support programs, along with community-based recreation and governance functions, although limited information is available regarding broader infrastructure systems and service capacity in some areas.

According to the 2021 Census, there were 540 individuals living on the Timiskaming Reserve, of which 275 identified as men+ and 265 identified as women+. The average age was 38.2 (37.2 for men+ and 39.2 for women+) and the median age was 36.0 (35.2 for men+ and 39.2 for women+). The reported population in Timiskaming Reserve neither increased or decreased between the 2016 Census and 2021 Census (StatCan 2017g; 2023g).

In 2021, 36.3% of the total reported population 15 years and over did not have a certificate, diploma, or degree (39.0% of men+ and 35.9% of women+), 20.0% of the population 15 years and over reported a secondary school diploma or equivalency certificate as their highest educational attainment (24.4% of men+ and 15.4% of women+), 10.0% reported an apprenticeship or trades certificate or diploma (12.2% of men+ and 7.7% women+) and 26.3% reported a college or non-university certificate (17.1% of men+ and 33.3% of women+) (StatCan 2023g).

Land use within TFN traditional territory is characterized by continued harvesting and cultural use across a watershed-based landscape, including fishing, hunting, plant gathering, and the use of travel routes and occupancy areas. Fishing is the most prominent activity, with species such as walleye and pike commonly harvested, alongside small game (e.g., geese, ducks, partridge, rabbit, beaver) and large game such as moose, as well as seasonal berry gathering and resource collection. Land use also includes culturally significant sites such as camps, sacred areas, and cemeteries, reflecting long-standing cultural connections to the land, although access and use patterns have been influenced by historical constraints such as land dispossession and industrial development (TFN 2025).

2.15.9 Métis Nation of Ontario - Region 3

The Project is located within the traditional harvesting area of Métis Nation of Ontario (MNO Region 3 (Abitibi Inland Métis Community)). The Northern Lights Métis Council and the Timmins Métis Council are Chartered Community Councils of the MNO Region 3. They represent Métis citizens locally and support the advancement and protection of Métis rights and interests, including harvesting practices and land-based activities. Both councils deliver community programs and services and participate in regional governance processes.

MNO citizens are supported by a range of social infrastructure through Métis Nation of Ontario programs, including family well-being, mental health and addictions services, housing support, education supports, and employment and training programs. These services are delivered in conjunction with access to community-based infrastructure in the municipalities where citizens reside, with programs focused on health, social services, education, and economic participation, while limited information is available regarding dedicated Métis-specific physical infrastructure.

According to the 2021 Census, there were 340 self-identified Métis people in the Town of Kirkland Lake (170 men+ and 170 women+), a 1.5% increase over 2016. The average age was 36.7 (37.2 for men+ and 36.2 for women+) and the median age was 33.6 (34.0 for men+ and 33.2 for women+). In Larder Lake, there were 25 self-identified Métis people, a 44.4% decrease from 2016. The average age was 58.0. In Rouyn-Noranda, there were 675 self-identified Métis people, a 9.8% increase from 2016. The average age was 31.5 (StatCan 2017i, j,k; 2023i,j,k).

In 2021, 31.5% of self-identified Métis people, 15 years of age and over, in Kirkland Lake did not have a certificate, diploma, or degree (42.9% of men+ and 19.2% of women+), 25.9% reported a secondary school diploma or equivalency certificate as their highest educational attainment (17.9% of men+ and 30.8% of women+), 5.6% reported an apprenticeship or trades certificate or diploma (10.7% of men+ and 0.0% of women+), 27.8% reported a college or non-university certificate (17.9% of men+ and 38.5% of women+) and 7.4% reported a Bachelor's degree or higher (10.7% of men+ and 7.7% of women+) (StatCan 2023i).

In Larder Lake, 50.0% of self-identified as Métis people, 15 years of age and over, did not have a certificate, diploma, or degree, a higher rate than the provincial average; 50.0% reported a secondary school diploma or equivalency certificate as their highest educational attainment; and

0.0% reported an apprenticeship or trades certificate or diploma, a college or non-university certificate, and a Bachelor's degree or higher (StatCan 2023j).

In Rouyn-Noranda, 38.3% of self-identified as Métis people, 15 years of age and over, did not have a certificate, diploma, or degree, a higher rate than the provincial average; 13.8% reported a secondary school diploma or equivalency certificate as their highest educational attainment; 27.7% reported an apprenticeship or trades certificate or diploma; 6.4% a college or non-university certificate; and 7.4% a Bachelor's degree or higher (StatCan 2023k).

Land use information was not available at the time of preparation of this report.

2.15.10 Township of Gauthier (Dobie)

The Township of Gauthier is located within one km of the Project site. It is supported by access to external health infrastructure, including hospital services, primary care providers, public health units, and long-term care facilities located in nearby communities such as Kirkland Lake.

According to the 2021 Census, there were 150 individuals living in the Township of Gauthier in 2021, of which 75 individuals identified as men+ and 75 as women+. The average age was 45.2 years (46 for men+ and 45 for women+), and the median age was 49.2 years (50 for men+ and 47.6 for women+). The Township of Gauthier's population increased by 7.1% between the 2016 Census and 2021 Census (StatCan 2017h, 2023h).

In 2021, 23.1% of the total population 15 years and over did not have a certificate, diploma, or degree (27.3% of men+ and 14.3% of women+). In 2021, 26.9% of the population 15 years and over reported a secondary school diploma or equivalency as their highest educational attainment (18.2% of men+ and 42.9% of women+), 7.7% reported an apprenticeship or trades certificate or diploma (18.2% of men+ and 0% of women+) and 11.5% of the population held a bachelor's degree or higher (0% of men+ and 14.3% of women+; StatCan 2023h).

2.15.11 Town of Kirkland Lake

The Town of Kirkland Lake is the nearest large municipal community to the Project site, located approximately 19 km to the west. Kirkland Lake is a historic gold mining town, and the administrative and economic centre of the north Timiskaming District. Kirkland Lake is supported by a range of social infrastructure, including hospital and primary care services, public health programs, long-term care facilities, and mental health and addiction services, alongside multiple primary and secondary schools and a post-secondary institution offering trades, health, and mining-related programs. The community also includes recreational and cultural facilities, social and employment services, emergency services, and core municipal infrastructure such as roads, an airport and electrical, water and wastewater systems.

According to the 2021 Census, there were 7,750 individuals living in the Town of Kirkland Lake, of which 3,805 identified as men+ and 3,945 identified as women+. The average age was 44.3 (43.4 for men+ and 45.1 for women+) and the median age was 45.2 (44.4 for men+ and 46.4 for women+). Kirkland Lake's population decreased by 2.9% between the 2016 Census and 2021 Census (StatCan 2017i, 2023i).

In 2021, 24.7% of the total population 15 years and over did not have a certificate, diploma, or degree (25.0% of men+ and 24.7% of women). In 2021, 27.8% of the population 15 years and over reported a secondary school diploma or equivalency as their highest educational attainment (28.8% of men+ and 26.7% of women+), 6.6% reported an apprenticeship or trades certificate or diploma (10.0% of men+ and 3.3% of women+), 26.5% reported a college or

non-university certificate (24.3% of men+ and 28.6% of women+) and 13.7% reported a Bachelor's degree or higher (11.6% of men+ and 15.7% of women+; StatCan 2023i).

2.15.12 Township of Larder Lake

The Town of Larder Lake is located approximately 8 km southeast of the Project site, along Highways 66 and Highway 624, at the northwestern shore of Larder Lake. Larder Lake is supported by local social infrastructure within the community and surrounding region, with access to transportation via Highways 66 and 624 and municipal services guided by priorities related to maintaining community services, housing, and quality of life. The Township's planning framework emphasizes economic development, including tourism, business retention, and mining, alongside maintaining community services and infrastructure to support residents and overall community well-being.

According to the 2021 Census, there were 745 individuals living in the Town of Larder Lake, of which 390 identified as men+ and 355 identified as women+. The average age was 46.8 (47.0 for men+ and 46.6 for women+) and the median age was 51.2 (52.0 for men+ and 50.4 for women+). Larder Lake's population increased by 2.1% between the 2016 Census and 2021 Census (StatCan 2017j, 2023j).

In 2021, 25.7% of the total population 15 years and over did not have a certificate, diploma or degree (24.3% of men+ and 27.9% of women+). In 2021, 30.9% of the population 15 years and over reported a secondary school diploma or equivalency as their highest educational attainment (32.4% of men+ and 27.9% of women+), 7.4% reported an apprenticeship or trades certificate or diploma (13.5% of men+ and 0.0% of women+), 27.9% reported a college or non-university certificate (27.0% of men+ and 29.5% of women+) and 4.4% reported a Bachelor's degree or higher (4.1% of men+ and 6.6% of women+; StatCan 2023j).

2.15.13 Ville de Rouyn-Noranda

Ville de Rouyn-Noranda is a city located north-west of Quebec in the Abitibi-Témiscamingue region. The western boundary of Rouyn-Noranda extends to the Ontario–Quebec border. The territory of Rouyn-Noranda is located 17 km from the Project, and the downtown area is approximately 50 km away.

Rouyn-Noranda is supported by a range of social infrastructure, including hospital and primary care services, local community service centres, multiple medical clinics, long-term care, and mental health and social support services, as well as French-language primary and secondary schools and post-secondary institutions offering technical, university, and vocational training. The community also features extensive cultural and recreational amenities, social and community support services (including housing, youth, and vulnerable population supports), emergency services, and municipal infrastructure such as public transit, road networks, an airport with regional air service, and water and wastewater systems.

According to the 2021 Census, there were 42,315 individuals living in Rouyn-Noranda, of which 21,205 identified as men+ and 21,105 identified as women+. The average age was 42.1 (41.2 for men+ and 42.9 for women+) and the median age was 42.0 (40.8 for men+ and 43.2 for women+; StatCan 2023k).

In 2021, 21.7% of the total population 15 years and over did not have a certificate, diploma or degree (23.7% of men+ and 19.6% of women+). In 2021, 20.0% of the population 15 years and over reported a secondary school diploma or equivalency as their highest educational

attainment (18.1% of men+ and 21.9% of women+), 21.3% reported an apprenticeship or trades certificate or diploma (27.4% of men+ and 15.1% of women+), 16.8% reported a college or non-university certificate (14.9% of men+ and 18.9% of women+) and 16.6% reported a Bachelor's degree or higher (13.3% of men+ and 20.0% of women+; StatCan 2023k).

2.15.14 City of Timmins

The City of Timmins is located approximately 79 km northwest of the Project site (122 km by road), and is the regional service and distribution centre, offering key services not available in the Town of Kirkland and the Township of Larder Lake. Timmins is supported by a broad range of social infrastructure, including a regional hospital, primary care and public health services, long-term care, and mental health and addiction programs, as well as multiple primary, secondary, and post-secondary institutions offering programs in both English and French. The community also includes extensive recreational and cultural amenities, social and community support services (e.g., childcare, housing, food security, and newcomer services), emergency services, and established municipal infrastructure such as public transit, road networks, an airport, water and wastewater systems, and energy and communications services.

According to the 2021 Census, there were 41,145 individuals living in Timmins, of which 20,555 identified as men+ and 20,590 identified as women+. The average age was 41.8 (40.9 for men+ and 42.6 for women+), and the median age was 42.0 (40.8 for men+ and 43.2 for women+), similar to the provincial average and median ages of 41.8 and 41.6, respectively. Timmins' population decreased by 1.5% between the 2016 Census and 2021 Census (StatCan 2017l; 2023l).

In 2021, 21.7% of the total population 15 years and over did not have a certificate, diploma or degree (22.5% of men+ and 21% of women+), a higher rate than the provincial average of 15.3%. In 2021, 29.5% of the population 15 years and over reported a secondary school diploma or equivalency as their highest educational attainment (30.4% of men+ and 28.6% of women+), 7.2% reported an apprenticeship or trades certificate or diploma (11.5% of men+ and 2.9% of women+), 27.6% reported a college or non-university certificate (24.7% of men+ and 30.5% of women+) and 12.8% reported a Bachelor's degree or higher (10% of men+ and 15.6% of women+; StatCan 2023l).

2.15.15 Timiskaming District

The Project site is located within Timiskaming District, and includes the Matachewan 72 reserve, the administrative centre for BHFN and the municipalities of Kirkland Lake and Larder Lake, in addition to several provincial parks. Timiskaming District is supported by a range of social infrastructure distributed across its communities, including childcare and early years programming, mental health and community support services, and public health services delivered through the Timiskaming Health Unit with offices in Kirkland Lake, Englehart, and New Liskeard. Residents also have access to employment supports, housing services, and emergency medical services administered at the district level, including ambulance services, paramedic response units, and volunteer-based first response teams, with additional education, recreation, and municipal services provided locally within individual communities.

According to the 2021 Census, there were 31,420 individuals living in Timiskaming District, of which 15,510 identified as men+ and 15,910 identified as women+. The average age was 45.0 (44.2 for men+ and 45.8 for women+), and the median age was 47.6 (46.8 for men+ and 48.8

for women+). Timiskaming District's population decreased by 2.6% between the 2016 Census and 2021 Census (StatCan 2017m; 2023m).

In 2021, 24.2% of the total population 15 years and over did not have a certificate, diploma or degree (26.0% of men+ and 22.5% of women+). In 2021, 28.1% of the population 15 years and over reported a secondary school diploma or equivalency as their highest educational attainment (28.7% of men+ and 27.6% of women+), 8.0% reported an apprenticeship or trades certificate or diploma (12.1% of men+ and 3.9% of women+), 27.0% reported a college or non-university certificate (23.6% of men+ and 30.2% of women+) and 11.6% reported a Bachelor's degree or higher (8.9% of men+ and 14.1% of women+; StatCan 2023m).

2.16 Local and Regional Economy

Detailed methodologies, data sources, and full results are provided in the Socio-economic Baseline Report (Appendix N-1).

The regional socioeconomic baseline for the Project considers a set of communities in northeastern Ontario and northwestern Quebec, including Kirkland Lake, Larder Lake, Timmins, Township of Gauthier (Dobie), Rouyn-Noranda, and the broader Timiskaming District. These communities exhibit broadly similar economic structures and labour market conditions shaped by their shared reliance on natural resource industries, particularly mining.

Census data from 2021 indicate a general decline in labour force participation across most communities compared to 2016. This trend indicates a weakening in labour market engagement over the period. Participation patterns continue to vary by gender, with men+ consistently demonstrating higher labour force participation rates compared to women+. Women+ tend to experience lower employment rates and are more likely to rely on government transfers as a component of household income.

Unemployment rates vary across the region and reflect both structural and demographic influences. Larger, economically diversified centres such as Rouyn-Noranda demonstrate relatively strong labour market performance, characterized by low unemployment and stable participation. In contrast, smaller communities including the Township of Gauthier (Dobie), show more variable and less stable labour market indicators likely related to smaller population size and limited economic diversification.

The regional economy remains heavily shaped by natural resource sectors, with mining serving as the dominant driver of employment and economic activity in several communities, including Kirkland Lake, Larder Lake and Timmins. Employment patterns reflect this reliance, with a large proportion of men+ employed in mining, quarrying, and related extraction industries.

Occupational distribution exhibits clear gender segmentation. Men+ are predominantly employed in resource extraction and other goods-producing sectors, while women+ are more commonly employed in service-oriented sectors such as health care, social assistance, sales and public administration. This division reflects broader regional employment patterns and the structure of available opportunities. The socioeconomic baseline also reflects a region experiencing ongoing and planned development activity across several sectors. The mining sector continues to attract investment, with multiple exploration and expansion projects underway or proposed. Notable projects such as Agnico Eagle's Macassa Expansion, Newmont's Pamour Project and Falco's Horne 5 Project, underscore the continued economic importance of mining and its role in sustaining regional employment and growth. Forestry remains an active, though comparatively smaller component of the regional economy, with

operations like Rosko Forestry and Cheminis Lumber contributing to local employment and resource utilization.

Municipalities across the region are also pursuing diversification strategies, with investments in tourism development through natural assets, recreation, and cultural activities, particularly in Larder Lake and Rouyn-Noranda. In addition, public and private sector investments in infrastructure are occurring across the region, including water treatment upgrades, airport facilities and community recreation centres. These projects contribute to improved service delivery, support population retention, and enhance overall community resilience.

From a municipal revenue pattern perspective, communities like Kirkland Lake, Rouyn-Noranda, and Timmins show growing revenues and healthy annual surpluses in recent financial years, while others lack up to date financial reporting. At the provincial level, Ontario's overall revenues reached 185.1 billion dollars in 2021 to 2022, driven primarily by taxation, with personal income tax and sales tax as leading contributors. Together, these data points illustrate a region shaped by resource driven economies, demographic shifts and ongoing efforts to diversify through tourism, services and infrastructure investment.

2.16.1 Apitipi Anicinapek Nation

The 2021 Census presents labour force statistics from respondents on Abitibi 70 reserve. The Census data used here has not been validated by the Nation, and the data does not account for off-reserve community members.

According to the 2021 Census, the labour force participation rate was 64.0% (64.3% for men+ and 58.3% for women+) and the unemployment rate in 2021 was 18.8% (33.3% for men+ and 0% for women+). Public administration, followed by health care and social assistance, was the dominant industry for both men+ and women+. Trades, transport and equipment operators and related occupations, followed by natural resources, agriculture and related production occupations and occupations in education, law and social, community and government sources, were the dominant occupation categories for men+. Trades, transport and equipment operators and related occupations, sales and service occupations; occupations in education, law and social, community and government services; business, finance and administrative occupations; and legislative and senior management occupations were the dominant occupation categories for women+ (StatCan 2023a).

AAN noted that the mining sector provides employment for approximately 20% of the available workforce. Other members work in Nation-run or affiliated businesses which include trucking and drilling. In addition, AAN has had an increase in employees working for the Band office from 42 staff in 2021 to 105 staff in 2025 (AAN 2026b).

2.16.2 Beaverhouse First Nation

The BHFN population in Kirkland Lake overall, just under half of the population was employed in 2021 (48.5%), with just over half of the population part of the labour force (54.4%) and 10.7% of this labour force was unemployed in 2021. BHFN has members in Kirkland Lake who are drillers, truck drivers, one Red Seal mechanic and people who are trained in ArcGIS (Avaanz 2025).

2.16.3 Kebaowek First Nation

According to the 2021 Census, the labour force participation rate was 56.9% (60.7% for men+ and 56.7% for women+) and the unemployment rate was 12.1% (11.8% for men+ and 11.8% for women+). The most common occupation category among men+ was trades, transport and equipment operators and related occupations, followed by manufacturing and utilities, natural resources, and natural and applied sciences. For women+, the largest occupational categories were education, law and social, community and government services, sales and service, and business, finance and administration (StatCan 2023b).

2.16.4 Long Point First Nation

According to the 2021 Census, the labour force participation rate was 56.0% (58.3% for men+ and 46.2% women+). The employment rate was 44.0% (33.3% for men+ and 46.2% for women+) and the unemployment rate was 14.3% (28.6% for men+ and 0.0% for women+).

Public administration and agriculture, forestry, fishing and hunting, were the dominant industries for men+, while health care and social assistance, public administration and mining, quarrying and oil and gas extraction were the dominant industries for women+.

Natural resources, agriculture and related production occupations, followed by art, culture, recreation and sport, legislative and senior management, and sales and service were the dominant occupation categories for men+ and business, finance and administration, and education, law and social, community and government services were the dominant categories for women+ (StatCan 2023c).

2.16.5 Matachewan First Nation

According to the 2021 Census, the labour force participation rate was 50.0% (66.7% for men+ and 33.3% for women+) and the unemployment rate in 2021 was 0%. Public administration, construction, and mining, quarrying, and oil and gas extraction were the dominant industries for men+, while public administration was the dominant industry for women+. Natural resources, agriculture and related production occupations; occupations in education, law and social, community and government services; and natural and applied sciences and related occupations were the dominant categories for men+ and occupations in education, law and social, community and government services, and business, finance and administration occupations were the dominant categories for women+ (StatCan 2023d).

2.16.6 Taykwa Tagamou Nation

According to the 2021 Census, the population aged 15 years and older was 95 (50 for men+ and 50 for women+). The labour force participation rate was 63.2% (60.0% for men+ and 50.0% for women+), the employment rate was 63.2% (60.0% for men+ and 50.0% for women+) and the unemployment rate was 0.0%. The number of people in the labour force was 60 (30 for men+ and 25 for women+), the number of employed people was 60 (30 for men+ and 25 for women+) and there were no unemployed people. The number of people not in the labour force was 35 (15 for men+ and 15 for women+). Trades, transport and equipment operators and related occupations as well as occupations in education, law and social, community and government services were equally the dominant occupation for the total population. Men+ predominantly occupy trades, transport, and equipment operators-related jobs, whereas women+ predominantly occupy sales and service jobs (StatCan 2023e).

2.16.7 Temagami First Nation

According to the 2021 Census, the labour force participation rate was 52.9% (50.0% for men+ and 64.7% for women+) and the unemployment rate was 27.8% (25.0% for men+ and 27.3% for women+). Public administration and construction were the dominant industries for men+, while health care and social assistance was the dominant industry for women+. Education, law and social, community and government services were the dominant occupation for the total population. Women+ predominantly occupy occupations in business, finance and administration jobs, whereas men+ predominantly occupy education, law and social, community and government services occupations (StatCan 2023f).

2.16.8 Timiskaming First Nation

According to the 2021 Census, the labour force participation rate was 56.3% (56.1% for men+ and 56.4% for women) and the unemployment rate was 15.6% (17.4% for men+ and 13.6% for women+). According to the 2021 Census, public administration and construction were the dominant industries for men+, while health care and social assistance was the dominant industry for women+. According to the 2021 Census, trades, transport and equipment operators and related occupations, and sales and service occupations were the dominant occupation categories for men+. Occupations in education, law and social, community and government services, business, finance and administration, and sales and service were the dominant occupation categories for women+ (StatCan 2023g).

2.16.9 Métis Nation of Ontario – Region 3

Statistics Canada's Indigenous Population Profile draws upon Census data for self-identified Indigenous Peoples in Canada in Census subdivisions. Self-identified Métis people in Ontario municipalities may not all be MNO citizens, and some MNO citizens may not be represented in the data. This data has not been validated by the Nation.

The labour force participation rate for self-identified Métis people in Kirkland Lake was 68.5% (67.9% for men+ and 65.4% for women+) and the unemployment rate was 5.4% (10.5% for men+ and 0.0% for women+). In Ville de Rouyn-Noranda, the labour force participation rate for self-identified Métis people was 73.4% (77.2% for men+ and 62.2% for women+), and the unemployment rate was 10.1% (11.4% for men+ and 0.0% for women+). In Larder Lake, the labour force participation rate for self-identified Métis people was 75.0% and the unemployment rate was 0.0% (StatCan 2023i, j, k).

In Kirkland Lake, mining, quarrying, and oil and gas extraction was the top industry for men+ workers, and health care and social assistance was the top industry for women+ workers. Trades, transport and equipment operators, and related occupations was the top occupation category for men+ workers, and education, law, and social, community, and government services was the top occupation category for women+ workers. In Ville de Rouyn-Noranda, mining, quarrying, and oil and gas extraction was the top industry for men+ workers, while women+ were most represented in health care and social assistance, and public administration. Trades, transport and equipment operators, and related occupations was the top occupation category for men+ workers, while sales and service occupations was the top occupation category for women+ workers (StatCan 2023i, j, k). Data was not available for self-identified Métis people in Larder Lake.

2.16.10 Township of Gauthier (Dobie)

According to the 2021 Census, the population aged 15 years and over in Gauthier was 130 (55 men+ and 70 women+). The labour force participation rate was 57.7% (63.6% for men+ and 50.0% for women+) and the unemployment rate was 13.3% (0% for men+ and 28.6% for women+). The dominant industry among men+ was mining, quarrying, and oil and gas extraction, while among women+ the dominant industries were health care and social assistance and public administration. Men+ in Gauthier were most employed in natural resources, agriculture, and related production occupations, followed by sales and service occupations. Women+ were primarily employed in sales and service occupations, followed by trades, transport, and equipment operators and related occupations (StatCan 2023h).

2.16.11 Town of Kirkland Lake

According to the 2021 Census, the labour force participation rate was 54.4% total (59.6% for men+ and 49.1% for women+) and the unemployment rate was 10.7% total (12.0% for men+ and 9.2% for women+). Mining, quarrying, and oil and gas extraction, followed by retail trade, were the dominant industries for men+, while health care and social assistance, followed by public administration, were the dominant industries for women+. Trades, transport and equipment operators and related occupations was the dominant category for men+, while sales and service occupations was the dominant category for women+ (StatCan 2023i).

2.16.12 Township of Larder Lake

According to the 2021 Census, the labour force participation rate was 44.1% total (47.3% for men+ and 42.6% for women+) and the unemployment rate was 8.3% total (14.3% for men+ and 0.0% for women+). Mining, quarrying, and oil and gas extraction, followed by construction, were the dominant industries for men+, while health care and social assistance, followed by public administration, transportation and warehousing, and accommodation and food services were the dominant industries for women+. Trades, transport and equipment operators and related occupations was the dominant category for men+, while sales and service occupations was the dominant category for women+ (StatCan 2023j).

2.16.13 Ville de Rouyn-Noranda

According to the 2021 Census, the labour force participation rate was 65.3% total (68.8% for men+ and 61.8% for women+) and the unemployment rate was 4.8% total (5.3% for men+ and 4.3% for women+). Mining, quarrying, and oil and gas extraction, followed by construction, were the dominant industries for men+, while health care and social assistance, followed by retail trade were the dominant industries for women+. Trades, transport and equipment operators and related occupations was the dominant category for men+, while sales and service occupations was the dominant category for women+ (StatCan 2023k).

2.16.14 City of Timmins

According to the 2021 Census, the labour force participation rate was 62.4% (66.5% for men+ and 58.3% for women+) and the unemployment rate was 8.6% (7.6% for men+ and 9.8% for women+). Mining, quarrying, and oil and gas extraction, followed by construction, was the dominant industry for men+, while health care and social assistance, followed by educational services, was the dominant industry for women+. Trades, transport and equipment operators

and related occupations was the dominant category for men+, while sales and service occupations was the dominant category for women+ (StatCan 2023I).

2.16.15 District of Timiskaming

According to the 2021 Census, the labour force participation rate was 55.8% (60.0% for men+ and 51.6% for women+) and the unemployment rate was 8.3% total (8.5% for men+ and 8.1% for women+). Mining, quarrying, and oil and gas extraction, followed by construction, were the dominant industries for men+, while health care and social assistance, followed by retail trade, were the dominant industries for women+. Trades, transport and equipment operators and related occupations was the dominant category for men+, while sales and service occupations was the dominant category for women+ (StatCan 2023m).

2.17 Cultural Heritage

Cultural heritage assessments consider known and potential built heritage resources and cultural heritage landscapes based on screening criteria developed by the Ministry of Citizenship and Multiculturalism and professional judgment. Detailed methodology and information regarding the cultural heritage resources on the Property are reported in the Built Heritage and Cultural Heritage Landscape Assessment Report (AMEC 2013; Appendix M-1).

Six cultural heritage landscapes and 24 built heritage resources were identified near the Property (AMEC 2013). Among the cultural heritage landscapes are remnants of an early rail or tram way that served as transportation for an early Stamp Mill (circa 1912 to 1920) and the remains of an early trail system, reflected today in open corridors through wooded areas. Built heritage resources include structural remains and implements related to early mining activities. With the exception of movable items, such as tubs and camshafts, all of the heritage resources are considered to have cultural heritage value or interest.

2.18 Archaeology

Terrestrial and marine archaeological assessments have been completed by licenced archaeologists to assess the potential for and presence of physical features and sites that may have historical and / or cultural value or interest for Indigenous communities and society within or near the proposed Project site, where there may be potential for these features or sites to be disturbed by Project-related activities. Copies of the related reports, including corresponding methodology, are provided in Appendix M-2.

2.18.1 Terrestrial Archaeology

Terrestrial archeological assessments conducted near the Property from 2010 to present include:

- A Stage 1 archaeological assessment was undertaken in 2011 for the AEX Program, identifying several areas of archaeological potential, including features from the historic Argonaut Mine, as well as areas of potential Indigenous traditional land use (Woodland 2011). A Stage 2 assessment was recommended for these areas, which was carried out in 2012. Several archaeological and cultural heritage resources were recovered, and Stage 3 assessments were recommended for eight areas. Stage 3 assessments were conducted for the Argonaut Mine stamp mill and three potential former cabins in 2016 (Woodland 2016a; 2016b; 2016c).

- In 2012, a Stage 1 archaeological assessment was undertaken for three proposed transformer locations north of Highway 56. No areas of archaeological potential were identified, and no further assessment was required.
- In 2013, a Stage 1 archaeological assessment was conducted to support the realignment of Beaverhouse Lake Road (Woodland 2013). Two areas of archaeological potential were identified and recommended for Stage 2 assessment, including at the proposed Victoria Creek crossing and a series of wetlands connected to Little Larder Lake. The Stage 2 assessment was completed in 2022, and no archaeological resources were recovered (Woodland 2022a).
- In 2015 a Stage 1 archaeological assessment was completed within the AEX Program footprint. Several areas of archaeological potential along shorelines were identified and recommended for Stage 2 assessment (Woodland 2015a). A Stage 2 assessment identified two areas of archaeological potential including the former Argonaut Mine hoist room and a potential pre-contact campsite between Ava Lake and York Lake (Woodland 2015b). In 2021, a Stage 3 assessment was conducted at the York Lake Camp site (Woodland 2021). A Stage 4 assessment was recommended if avoidance is not possible.
- In 2021, a Stage 1 assessment was conducted within the footprint of the proposed overburden stockpile. Areas of archaeological potential were identified in well-drained, level terrain within 50 m of Victoria Creek. A Stage 2 assessment was carried out in these areas, and no archaeological resources were discovered (Woodland 2022b).
- In 2022, Stage 2 and Stage 3 archaeological assessments were conducted for a mapped point identified as a potential grave southwest of York Lake. It was determined that the point was placed on the map in error, and no further archaeological assessment was required (Woodland 2022c).
- In 2023, Stage 1 assessments for portions of Beaverhouse Road and Fork Lake Road and the proposed new boat launch identified areas of archaeological potential at the proposed boat launch and unnamed stream crossings near Victoria Creek and Little Larder Lake. Stage 2 assessments discovered no archaeological resources, and no further assessments are recommended (Woodland 2023a; 2023b).

2.18.2 Marine Archaeology

In 2025, a marine archaeological survey was carried out at one location each for York Lake, Ava Lake and Beaverhouse Lake. One historical artifact associated with historical mining activities was collected from the northern portion of York Lake, a historical wooden platform was identified within York Lake, and disarticulated historical timbers from a past structure were identified within Ava Lake. The Beaverhouse study area and southern portion of York Lake were assessed and determined to have very low archaeological potential due to the presence of a steep incline within the lake, which reduces the likelihood of archaeological material being preserved or remaining accessible. The visual inspection did not identify surficial archaeological materials or features that would require further conservation efforts. No further marine archaeological assessment is required for these study areas (WSP 2026).

2.19 References

- Apitipi Anicinapek Nation & Tamarack Environmental Associates Inc. (AAN). 2026a. Apitipi Anicinapek Nation Agnico Eagle Upper Beaver Gold Project Indigenous Knowledge, Land Use and Occupancy Study.
- Apitipi Anicinapek Nation, Tamarack Environmental Associates Inc. and Petersen Consulting (AAN). 2026b. Apitipi Anicinapek Nation Agnico Eagle Upper Beaver Gold Project Socio-Economic Baseline Assessment.
- Avaanz Ltd (Avaanz). 2025. Beaverhouse First Nation Socio-economic Baseline Study Final Report for Beaverhouse First Nation.
- Algonquin Anishinabeg Nation Tribal Council (AANTC). 2026. Communities. <https://aantc-elections-ctnaa.ca/en/communities/>.
- AMEC Environment and Infrastructure. 2013. Osisko Kirkland Lake Project Built Heritage and Cultural Heritage Landscape Assessment. December 2013.
- Coker, G.A., Portt, C.B., Minns, C.K. 2001. Morphological and Ecological Characteristics of Canadian Freshwater Fishes. Canadian Manuscript Report of Fisheries and Aquatic Sciences 2554. EACOM Timber Corporation. (2021). Sustainable Forests. <https://www.eacom.ca/we-are-committed/sustainable-forests/>.
- Government of Canada. 2021. Crown-Indigenous Relations and Northern Affairs Canada. Website: Aboriginal and Treaty Rights Information System. https://sidait-atris.aadnc-aandc.gc.ca/atris_online/home-accueil.aspx. Accessed July 5, 2021.
- Hasnain, S.S., Minns, C.K., Shuter, B.J. 2010. Key Ecological Temperature Metrics for Canadian Freshwater Fishes. Climate Change Research Project.
- Kebaowek First Nation (KFN). 2026. About. Welcome to Kebaowek First Nation. <https://www.kebaowek.ca/about.html>.
- Matachewan First Nation & Firelight Research Inc. (MFN). 2023. Matachewan First Nation Knowledge and Use Study for Agnico Eagle Mines Ltd's Upper Beaver Project.
- Métis Nation of Ontario (MNO). 2021. Métis Nation of Ontario. 2021. Harvesting. Website: <https://www.metisnation.org/registry/harvesting/>. Accessed July 2021.
- Métis Nation of Ontario (MNO). 2023j. Lands, Resources & Consultations. Métis Nation of Ontario. <https://www.metisnation.org/programs-and-services/lands-resources-consultations/>.
- Ministry of Natural Resources and Forestry (MNRF). 2023a. Kirkland Lake District Land Use Guidelines (1983).
- Ministry of Natural Resources and Forestry (MNRF). 2023b. Management Units and Forest Management Plan Renewal Schedules. <http://www.ontario.ca/page/management-units-and-forest-management-plan-renewal-schedules>.
- Ministry of Natural Resources and Forestry (MNRF). 2023c. Sustainable Forest Licences. <https://www.ontario.ca/page/sustainable-forest-licences>.
- Ministry of Natural Resources (MNR). 2024. Crown Land Use Policy Atlas. <http://www.ontario.ca/page/crown-land-use-policy-atlas>.

-
- Nishnawbe Aski Nation. 2020. First Nations in NAN. Nishnawbe Aski Nation.
<https://www.nan.ca/about/first-nations/>.
- SRK Consulting Canada Inc. (SRK). 2026. Upper Beaver Groundwater Impact Assessment.
Agnico Eagle Mines Ltd.
- Statistics Canada (StatCan). 2017a. Abitibi 70, Indian reserve [Census subdivision], Ontario and Cochrane, District [Census division], Ontario. Census Profile, 2016 Census.
- Statistics Canada (StatCan). 2023a. Abitibi 70, Indian reserve, Ontario [Census subdivision]. Census Profile, 2021 Census.
- Statistics Canada (StatCan). 2017b. Kebaowek, Indian reserve [Census subdivision], Quebec and Témiscamingue, Municipalité régionale de comté [Census division], Quebec. Census Profile, 2016 Census.
- Statistics Canada (StatCan). 2023b. Kebaowek, Indian reserve, Quebec [Census subdivision]. Census Profile, 2021 Census.
- Statistics Canada (StatCan). 2017c. Winneway, Indian Settlement [Census subdivision], Quebec and Témiscamingue, Municipalité régionale de comté [Census division], Quebec. Census Profile, 2016 Census.
- Statistics Canada (StatCan). 2023c. Winneway, Indian settlement, Quebec [Census subdivision]. Census Profile, 2021 Census.
- Statistics Canada (StatCan). 2017d. Matachewan 72, Indian reserve [Census subdivision], Ontario and Timiskaming, District [Census division], Ontario. Census Profile, 2016 Census.
- Statistics Canada (StatCan). 2023d. Matachewan 72, Indian reserve (IRI) Ontario [Census subdivision]. Census Profile, 2021 Census.
- Statistics Canada (StatCan). 2017e. New Post 69A, Indian reserve [Census subdivision], Ontario and Cochrane, District [Census division], Ontario. Census Profile, 2016 Census.
- Statistics Canada (StatCan). 2023e. New Post 69A, Indian reserve, Ontario [Census subdivision]. Census Profile, 2021 Census.
- Statistics Canada (StatCan). 2017f. Bear Island 1, Indian reserve, Ontario [Census subdivision]. Census Profile, 2016 Census.
- Statistics Canada (StatCan). 2023f. Bear Island 1, Ontario [Census subdivision]. Census Profile, 2021 Census.
- Statistics Canada (StatCan). 2017g. Timiskaming, Indian reserve [Census subdivision], Quebec and Témiscamingue, Municipalité régionale de comté [Census division], Quebec. Census Profile, 2016 Census.
- Statistics Canada (StatCan). 2023g. Timiskaming, Indian reserve, Quebec [Census subdivision]. Census Profile, 2021 Census.
- Statistics Canada (StatCan). 2017h. Gauthier, Township [Census subdivision], Ontario and Timiskaming, District [Census division], Ontario. Census Profile, 2016 Census.
- Statistics Canada (StatCan). 2023h. Gauthier, Township, Ontario [Census subdivision]. Census Profile, 2021 Census.
-

-
- Statistics Canada (StatCan). 2017i. Kirkland Lake, Town [Census subdivision], Ontario and Timiskaming, District [Census division], Ontario. Census Profile, 2016 Census.
- Statistics Canada (StatCan). 2023i. Kirkland Lake, Town, Ontario [Census subdivision]. Census Profile, 2021 Census.
- Statistics Canada (StatCan). 2017j. Larder Lake, Township [Census subdivision], Ontario and Timiskaming, District [Census division], Ontario. Census Profile, 2016 Census.
- Statistics Canada (StatCan). 2023j. Larder Lake, Township, Ontario [Census subdivision]. Census Profile, 2021 Census.
- Statistics Canada (StatCan). 2017k. Rouyn-Noranda, Ville [Census subdivision], Quebec and Rouyn-Noranda, Territoire équivalent [Census division], Quebec. Census Profile, 2016 Census.
- Statistics Canada (StatCan). 2023k. Rouyn-Noranda, Ville, Quebec [Census subdivision]. Census Profile, 2021 Census.
- Statistics Canada (StatCan). 2017l. Timmins, City [Census subdivision], Ontario and Cochrane, District [Census division], Ontario. Census Profile, 2016 Census.
- Statistics Canada (StatCan). 2023l. Timmins, City, Ontario [Census subdivision]. Census Profile, 2021 Census.
- Statistics Canada (StatCan). 2017m. Timiskaming, District, Ontario [Census division]. Census Profile, 2016 Census.
- Statistics Canada (StatCan). 2023m. Timiskaming, District [Census division], Ontario. Census Profile, 2021 Census.
- Story Environmental Inc. (SEI). 2013. Osisko Mining Ltd, Upper Beaver Project Aquatic Baseline Study - DRAFT.
- Story Environmental Inc. (SEI). 2018. Agnico Eagle Mines Ltd, Upper Beaver Zone Advance Exploration Project - 2018 Baseline Aquatic Studies Report.
- Timiskaming First Nation (TFN). 2025. Traditional Territory Land Use and Occupancy Report.
- Timiskaming Forest Alliance Inc. (2021). Timiskaming Forest Alliance INC.
https://www.timfor.com/wordpress/?page_id=10.
- Township of Gauthier. (2011). *Township of Gauthier Official Plan*. Township of Gauthier.
- Township of Larder Lake. 2013. Zoning By-law No. 1465-13.
- Township of Larder Lake. 2018. Township of Larder Lake – Official Plan (Minister's Modified Version).
- Wabun Tribal Council. (2023c). First Nations. Wabun Tribal Council.
<https://www.wabuntribalcouncil.ca/first-nations/>.
- Woodland Heritage Services Limited (Woodland Heritage). 2011. Stage 1 Archaeological and Cultural Heritage Resource Assessment of the Upper Beaver Advanced Exploration Project East of Kirkland Lake, Timiskaming District, Ontario. PIF# P016-297-2010.

-
- Woodland Heritage. 2012a. Stage 2 Archaeological and Cultural Heritage Resource Assessment of the Upper Beaver Advanced Exploration Project East of Kirkland Lake, Gauthier and McVittie Townships, Timiskaming District, Ontario. PIF# P016-338-2012.
- Woodland Heritage. 2012b. Stage 1 Archaeological and Cultural Heritage Assessment of Three Potential Sites for a Proposed Transformer Station, Gauthier Township, District of Timiskaming, Ontario. PIF# P016-344-2012.
- Woodland Heritage. 2013. Stage 1 Archaeological Resource Assessment of the Proposed Upgrade and Realignment of the Beaverhouse Road, Located in Gauthier Township (Unsurveyed), Timiskaming District, Ontario. PIF# P208-059-2012.
- Woodland Heritage. 2015. Stage 1 Archaeological Resource Assessment of the Upper Beaver Exploration Footprint Area, Gauthier and McVittie Townships (Unsurveyed), Kirkland Lake, District of Timiskaming, Ontario. PIF# P016-0382-2014.
- Woodland Heritage. 2015. Stage 2 Archaeological Resource Assessment of the Canadian Malartic Corporation Upper Beaver Exploration Areas, Gauthier and McVittie Townships (Unsurveyed), Kirkland Lake, District of Timiskaming, Ontario. PIF# P208-0108-2014.
- Woodland Heritage. 2016a. Stage 3 Archaeological Assessment of the Argonaut (Mine D'Or Huronia) Stamp Mill (DaGw-2) within the Canadian Malartic Corporation Upper Beaver Project Area, Unsurveyed, Gauthier Township, Timiskaming District, Ontario. PIF# P208-0109-2014.
- Woodland Heritage. 2016b. Stage 3 Site-Specific Archaeological Assessment of a Former Cabin (DbGw-22) in Gauthier Township, Timiskaming District, Ontario. PIF# P208-0111-2014.
- Woodland Heritage. 2016c. Stage 3 Archaeological Assessments of DbGw-23 and DbGw-24 within the Canadian Malartic Corporation Upper Beaver Project Area, Unsurveyed, Gauthier Township, Timiskaming District, Ontario. PIF# P208-0110-2014 and P208-0112-2014.
- Woodland Heritage. 2021. Stage 3 Site-Specific Archaeological Assessment of the York Lake 1 Site (DbGw-26), in Gauthier Township (Unsurveyed), District of Timiskaming, Ontario. PIF# P208-0227-2020.
- Woodland Heritage. 2022a. Stage 1 and 2 Archaeological Resource Assessment, Proposed Realignment of Beaverhouse Road, Gauthier Township, District of Temiskaming, Ontario. PIF# P208-0293-2023.
- Woodland Heritage Services Ltd (Woodland). 2022b. Stage 1 and 2 Archaeological Resource Assessment of a Proposed Overburden Stockpile Area in Gauthier Township (Unsurveyed), District of Timiskaming, Ontario. PIF# P208-0251-2021.
- Woodland Heritage. 2022c. Stage 2 and 3 Archaeological Assessment of a Mapped Point Labelled "Grave" in Gauthier Township (Unsurveyed), District of Timiskaming, Ontario. PIF# P208-0255-2021 and P208-0256-2021.
- Woodland Heritage Services Ltd (Woodland). 2023a. Stage 1 and 2 Archaeological Resource Assessment of Proposed Realignment of Beaverhouse Road in Gauthier Township, District of Timiskaming, Ontario. PIF# P208-0293-2023.
-

Woodland Heritage Services Ltd (Woodland). 2023b. Stage 1 and 2 Archaeological Resource Assessment of Potential Alternative Access and Boat Launch Development in McVittie Township, District of Timiskaming, Ontario. PIF# P208-0304-2023.

WSP Canada Inc. (WSP). 2024. 2023 Terrestrial Baseline Report. Upper Beaver Gold Project. Agnico Eagle Mines Ltd. December 2024.

WSP Canada Inc. (WSP). 2025a. Cumulative Water Quality Baseline Report. Upper Beaver Gold Project. Agnico Eagle Mines Ltd. September 2025.

WSP Canada Inc. (WSP). 2025b. Fish Habitat Offset and Compensation Plan (Draft). Upper Beaver Gold Project. Agnico Eagle Mines Limited. October 2025.

WSP Canada Inc. (WSP). 2026. Marine Archaeological Impact Assessment. Upper Beaver Gold Project. Agnico Eagle Mines Limited. July 2026.