



# AGNICO EAGLE

## UPPER BEAVER PROJECT

### UPPER BEAVER GOLD PROJECT INITIAL PROJECT DESCRIPTION



August 2021

wood.

## TABLE OF CONTENTS

	<b>PAGE</b>
<b>A. GENERAL INFORMATION .....</b>	<b>1</b>
A.1 Project Name, Sector and Location .....	1
A.2 Proponent .....	1
A.3 Summary of Engagement with Stakeholders.....	2
A.4 Summary of Engagement with Indigenous Nations and Peoples.....	5
A.5 Regional Studies / Assessments.....	9
A.6 Strategic Assessments.....	9
<b>B. PROJECT INFORMATION .....</b>	<b>12</b>
B.1 Purpose and Need for Project, and Potential Benefits.....	12
B.2 Applicable Physical Activities Regulation Conditions.....	13
B.3 Activities, Infrastructure, Structures and Physical Works.....	13
B.3.1 Overview .....	13
B.3.2 Existing Historical Facilities and Infrastructure .....	14
B.3.3 Ongoing Exploration-related Facilities and Infrastructure.....	14
B.3.4 Proposed Mine Facilities and Infrastructure .....	16
B.4 Capacity Estimate.....	23
B.5 Preliminary Schedule .....	23
B.6 List of Potential Alternatives.....	24
<b>C. LOCATION INFORMATION AND CONTEXT.....</b>	<b>36</b>
C.1 Geographic Coordinates .....	36
C.2 Site Maps.....	36
C.3 Description of Lands.....	36
C.4 Proximity to Residences and Communities .....	36
C.5 Proximity to Federal Lands.....	38
C.6 Physical and Biological Environmental Setting .....	38
C.6.1 Climate, Air Quality, Noise and Light.....	38
C.6.2 Physiography and Geology .....	39
C.6.3 Surface Water and Groundwater.....	39
C.6.4 Terrestrial Environment.....	40
C.6.5 Aquatic Environment.....	41
C.6.6 Species at Risk .....	42



C.7	Social, Economic and Health Context .....	43
C.7.1	Site History .....	43
C.7.2	Social Context .....	44
C.7.3	Economic Context .....	45
C.7.4	Health Context .....	46
<b>D.</b>	<b>FEDERAL, PROVINCIAL, INDIGENOUS AND MUNICIPAL INVOLVEMENT AND EFFECTS .....</b>	<b>55</b>
D.1	Federal Funding .....	55
D.2	Federal Lands Needed .....	55
D.3	Federal, Provincial and Municipal Environmental Approvals .....	55
D.3.1	Federal .....	55
D.3.2	Provincial .....	55
D.3.3	Municipal .....	56
<b>E.</b>	<b>POTENTIAL EFFECTS OF THE PROJECT .....</b>	<b>59</b>
E.1	Changes to Fish and Fish Habitat, Aquatic Plants and Migratory Birds .....	59
E.2	Potential Changes to the Environment on Federal Lands or Lands outside Ontario .....	59
E.3	Potential Effects to Indigenous Peoples – Heritage, Traditional Lands and Other .....	59
E.4	Potential Effects to Indigenous Peoples – Social, Economic and Health Conditions .....	60
E.5	Estimate of Greenhouse Gas Emissions .....	61
E.6	Wastes and Emissions .....	61
E.7	Overview of Potential Environmental Effects .....	63
<b>F.</b>	<b>REFERENCES .....</b>	<b>74</b>



## LIST OF TABLES

Table B.1:	Existing Historical Mine Surface Features.....	26
Table B.2:	Preliminary List of Mine Facilities and Comparison to Advanced Exploration Facilities.....	27
Table B.3:	Preliminary List of Activities for the Upper Beaver Gold Project.....	30
Table C.1:	Land Claims and Assertions of Indigenous Nations.....	47
Table C.2:	Additional Information regarding Indigenous Nations.....	48
Table C.3:	Labour Characteristics of Nearby Municipalities and Indigenous Nations.....	50
Table D.1:	Preliminary List of Potential Federal Approvals.....	57
Table D.2:	Preliminary List of Potential Provincial Approvals.....	58
Table E.1:	Preliminary List of Changes to the Environment under Federal Jurisdiction.....	64
Table E.2:	Preliminary Summary of Potential Environmental Effects.....	66
Table E.3:	Preliminary Listing of Types of Wastes or Emissions.....	71
Table E.4:	Preliminary Comments and Preliminary Approach / Actions.....	72

## LIST OF FIGURES

Figure A.1:	Project Location.....	10
Figure A.2:	Regional Communities and First Nations.....	11
Figure B.1:	Preliminary Site Plan.....	32
Figure B.2:	Preliminary Mine Plan Longitudinal View.....	33
Figure B.3:	Historical Mine Remnants.....	34
Figure B.4:	Preliminary Project Schedule.....	35
Figure C.1:	Local Communities and Infrastructure.....	51
Figure C.2:	Land Tenure and Land Use.....	52
Figure C.3:	Watershed Boundary.....	53
Figure C.4:	Watercourses and Waterbodies.....	54

## LIST OF APPENDICES

- Appendix A: Community Input and Outcomes – Stakeholders
- Appendix B: Community Input and Outcomes – Indigenous Nations



## A. GENERAL INFORMATION

### A.1 Project Name, Sector and Location

Project Name	Upper Beaver Gold project
Sector	Mines and minerals - gold and copper mine
Location	19 kilometres (km) east of Kirkland Lake, Ontario; see Figure A.1

### A.2 Proponent

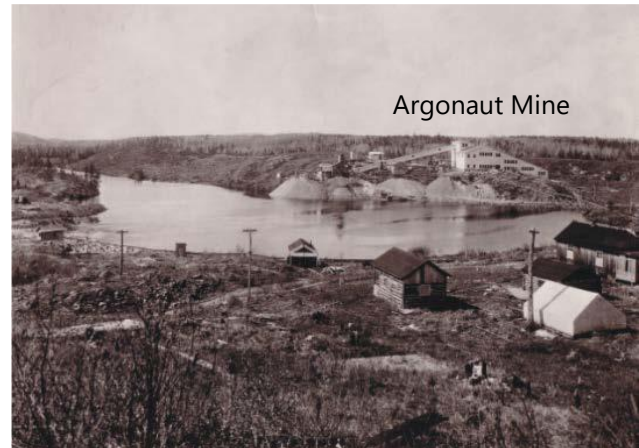
Proponent	Agnico Eagle Mines Limited <a href="https://agnicoeagle.com">https://agnicoeagle.com</a>
Corporate Contact	Daniel Paré, Vice-President, Operations - Eastern Canada Agnico Eagle Mines, Limited 93, Arseneault St., Suite 202 Val d'Or, Québec, Canada J9P 0E9 T: (819) 759-3700, 4102920 M: (819) 442-3744 Daniel.Pare@agnicoeagle.com
Proponent Contact	Sarah Morin, Sustainable Development and Environmental Coordinator Agnico Eagle Mines, Limited 10 200, de Preissac Rd. Rouyn-Noranda, Québec, Canada J0Y 1C0 T: (819) 759-3700 M: (819) 277-8550 Sarah.Morin@agnicoeagle.com
Supporting Consultant	Sheila Daniel, Principal Geoscientist Wood Environment & Infrastructure Americas 2020 Winston Park Drive, Suite 600 Oakville, Ontario, Canada L6H 6X7 M: (416) 524-5928 Sheila.Daniel@woodplc.com

Agnico Eagle Mines, Limited (Agnico Eagle) is a senior gold mining company that has produced precious metals since 1957. It operates eight mines globally, including in the Abitibi Region of Canada and has more than 10,000 employees. Agnico Eagle is committed to creating value for our shareholders while operating in a safe, and socially and environmentally responsible manner, as we contribute to the prosperity of our people, their families and the communities in which we operate. Further information is available at: <https://agnicoeagle.com>.



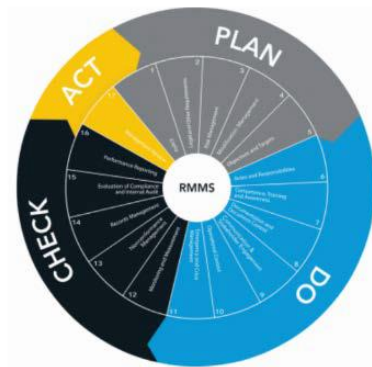
The Agnico Eagle goal for the Upper Beaver Gold project is to develop a gold and copper mine and associated facilities and infrastructure, on the site of a former producing mine.

The Upper Beaver Gold project site was the location of mining between 1912 and 1971. The main mining periods were from: 1912 to 1919, 1919 to 1935 and 1965 to 1971, although there were other periods of exploration activity. A total of 477,794 tonnes of ore were processed at the past producing mines at the site.



### A.3 Summary of Engagement with Stakeholders

In 2014, Agnico Eagle and his 50-50 Joint Venture Partner, Yamana Gold acquired the Upper Beaver property with the Canadian Malartic Corporation. More recently, on March 28, 2018, Agnico Eagle acquired 100% of interest in the project, giving Agnico Eagle 100% ownership of Canadian Malartic Corporation's interest of the Kirkland Lake properties. Prior to this acquisition, several stakeholders had already been met and were maintaining relationships with the project's representatives.



Agnico Eagle's mission is to build a high-quality, easy to understand business that generates superior long-term returns for shareholders, creates a great place to work for its employees and contributes positively to the communities in which the company operates. Agnico Eagle is committed to creating value for its shareholders while operating in a safe, socially, and environmentally responsible manner. Agnico Eagle's guidelines in community engagement matters have been implemented in the Upper Beaver Gold project context and will continue to be. These guidelines include:

- Maintain an open-minded and collaborative approach to build the best project possible in conjunction with the communities;
- Consider communities' questions, concerns and suggestions;
- Minimize the impact of the project on the users of the local area;
- Build a trusting relationship through dialogue and transparency, as more information becomes available;
- Plan, Do, Check, Act: continuously to validate the process.

To identify potential interested persons, Agnico Eagle has completed a formal stakeholder analysis that is updated on a regular basis. Potentially interested stakeholders were identified at this early stage of the project using the following criteria:

- Proximity to the project:
  - Do parties live nearby?
  - Do they have jurisdiction over surface rights or an interest in the area where the project is proposed?

- Can the project potentially affect the area or one of the land uses?
- What are the specific interests of the group considering its proximity?
- Past or current interest in similar projects or developments in the region:
  - Have stakeholders been involved in consultation processes in current or past projects in the region?

The following is a list of stakeholders that were consulted prior to and during preparation of this Initial Project Description (engagement with Indigenous Nations is provided in Section A.4):

- Beaverhouse Lake cottagers and surface rights owners;
- Township of Gauthier;
- Town of Kirkland Lake;
- Township of Larder Lake;
- Citizens from the Kirkland Lake area;
- Kirkland Lake District Chamber of Commerce;
- Kirkland District Game and Fish Protection Association;
- Timiskaming Abitibi Trail Association;
- Kirkland and District Community Development Corporation;
- Stella-Jones and Eacom Timber Company;
- Ministry of Northern Development, Mines, Natural Resources and Forestry (previously the Ministry of Energy, Northern Development and Mines);
- Ministry of the Environment, Conservation and Parks;
- Impact Assessment Agency.

Locations of the communities referenced above are shown in Figure A.2. Agnico Eagle plans to continue to engage with these stakeholders. It is possible that the list of stakeholders will expand as the project progresses.

Agnico Eagle has actively sought out dialogue with stakeholders related to the Upper Beaver Gold project, by means of:

- Meetings with its neighbours;
- Presentations to local municipalities;
- Frequent project update meetings;
- Information sharing by mail and email regarding proposed activities and works;
- Newsletters.

Investigations led to modifications to the initial project concept in 2020. In particular geotechnical findings have identified a significant risk for future underground development in the Upper Beaver Gold project area, due to a stability concern related to the lack of sufficient competent bedrock under York Lake and above the existing historic underground mine workings. Stakeholders were informed as soon as Agnico Eagle was aware that there were significant technical issues. When it was determined that the new findings were likely to result in a change to the conceptual project design, a specific engagement approach was initiated which includes the following good practices:



- Invite stakeholders to confirm the participants list;
- Agree on the agenda with the participants;
- Explain meetings objectives;
- Explain what kind of input was expected;
- Share and validate meeting reports with stakeholders to make sure they reflect the discussions;
- Share presentations with participants.

Key issues raised to date by stakeholders related and/or applicable to the Upper Beaver Gold project include:

- Project's potential impacts on the cottager's quality of life;
- Possibility of the expropriation of surrounding neighborhoods;
- Noise generated by water pumping equipment and potential crusher;
- Road safety;
- Consideration of spring flooding around the Misema River;
- Maximization of socioeconomic impacts;
- Dust management generated by a potential crusher on site.

As part of Agnico Eagle's intent to optimize engagement outcomes and consolidate relationships of trust with communities, input received during the engagement conducted before and during the preparation of the present Initial Project Description has been documented in a table in Appendix A. The table aims to show direct relation between received input and results of engagement.

It is Agnico Eagle's intention to maintain engagement activities with stakeholders as the project progresses, as reasonable. Future engagement activities planned in 2021 include:

- Meetings with its neighbours;
- Presentations to local municipalities;
- Frequent project update meetings;
- Information sharing by mail and email regarding proposed activities and works;
- Newsletters;
- New tools to inform the public such as question and answer, and a project-specific website: <https://upperbeaver.agnicoeagle.com/>.

Good practices previously presented will continue to be implemented and key objectives of engagement activities for 2021 are:

- To inform stakeholders of the baseline studies process planned in 2021;
- To validate the engagement activities planned in 2021 and adjust it if deemed necessary;
- To hold workshop meetings with cottagers to agree on collaboration modalities and validate mitigation measures planned according to each phase of the project.





A specific plan for future engagement in connection with the Impact Assessment process if applicable, will be designed and validated with communities and the Agency at the end of 2021, if Tailored Impact Statement Guidelines are received.

Agnico Eagle is committed to engaging with additional stakeholders as the Upper Beaver Gold project progresses to gather information on the current capacity / services and to determine potential impacts (positive and negative) of the mining project. Information gathered through engagement will support the impact statement. Engagement will be conducted with stakeholder groups, including but not limited to:

- Healthcare providers;
- Social service providers;
- Chambers of Commerce;
- Employment and training organizations.

Agnico Eagle will engage with diverse population groups, including women, men, youth, elders, as applicable, to understand varying perspectives. Engagement with diverse population groups will support the gender-based analysis plus (GBA+) framework that is anticipated to be completed in order to understand how diverse population groups could experience adverse effects from the project differently from others or be excluded from potential benefits, based on their identity factors.

#### **A.4 Summary of Engagement with Indigenous Nations and Peoples**

Agnico Eagle will work in partnership with Indigenous Peoples to establish a mutually beneficial, cooperative and productive relationship. Agnico Eagle approach is characterized by effective two-way communication, consultation and partnering.

Agnico Eagle is committed to:

- Improve the understanding of each other's concerns and aspirations through meaningful consultation and cooperation with Indigenous Nations;
- Define capacity-building strategies with and for Indigenous Peoples in the development of Agnico Eagle operations and projects, more specifically regarding employment, education, training and business initiatives;
- Understand the responsibilities to and respect of Indigenous Peoples for their traditional cultures.

To identify interested Indigenous Nations for the Upper Beaver Gold project, a formal partner analysis has been realized by Agnico Eagle, which is updated on a regular basis. Interested Indigenous Nations were identified using the following criteria:

- Indigenous Nations identified by the Ministry of Northern Development, Mines, Natural Resources and Forestry to which the Crown has a duty to consult for exploration and the advanced exploration project;
- Proximity to the project;
- Past or current interest in similar projects or developments in the region;
- Historic and current land use and occupation:
  - Have any Indigenous Nations publicly asserted that they or their ancestors traditionally used or occupied lands encompassing the project's site and its related proposed infrastructure?



- Do any of the Indigenous Nations identified by the Ontario government for engagement have traditional land on which the project is located?
- Potential impacts related to potential biophysical or socio-economic effects of the project.

The following list shows Indigenous Nations that may be affected by the project with whom Agnico Eagle has engaged with prior to and during preparation of this Initial Project Description. The year Agnico Eagle began fostering relationships with each Indigenous Nation is provided to illustrate the long-lasting collaborative work:

- Beaverhouse First Nation (BHFN) – since 2009;
- Matachewan First Nation (MFN) – since 2010;
- Wahgoshig First Nation (WFN) – since 2009;
- Timiskaming First Nation (TFN) – since 2014;
- Métis Nation of Ontario (Region 3; MNO) – since 2011.

Locations of the related First Nation Reserves / communities are shown in Figure A.2. Agnico Eagle does not know of any other Indigenous Nations at this time, that may be materially affected by the Upper Beaver Mine project. Through the long history of engagement activities for exploration and advanced exploration programs since 2009, no other Indigenous Nation has identified interest to be informed and engaged about the project activities.

Agnico Eagle actively promotes dialogue with Indigenous Nations in relation to the Upper Beaver Gold project. The engagement activities Agnico Eagle carries out include:

- Quarterly project update meetings with Chiefs and Band Councils;
- One-on-one meetings when requested;
- Site visits and field inspections as appropriate, requested or included in agreements;
- Environmental Advisory Committee (which includes 4 of the 5 Indigenous Nations listed above);
- Notifications of activities;
- Summary of upcoming regulatory submissions timeframe for easier understanding;
- Notice by email and/or phone prior to regulatory submissions, and provision of draft documents for review where appropriate;
- Meeting reports shared and validated with participants
- Information and participation in baseline studies for validation with Indigenous Nations;
- Discussion about engagement and collaboration on Indigenous Knowledge studies and validate with Indigenous Nations.

Community specific activities in addition to the above include:

- Exploration and accommodation agreements signed with 4 of the 5 Indigenous Nations;
- Implementation committee meetings and annual reports for signed agreement;
- Best effort to promote jobs and contracts;
- Business opportunities aspects in agreements;
- Negotiation and establishment agreements;
- Collaborative environmental monitoring including follow-up meetings when required;



- Training and capacity building offered when possible;
- Invitation to members of these Indigenous Nations to be included in archaeological resource assessments when such a study is related to their Nation;
- Sponsorship of community activities;
- Participation in community events, such as Family Day, Ice Fishing Day, Pow wow and Symposium.

Engineering investigations during 2020 led to modifications to the initial project concept. Geotechnical investigations identified a significant risk for future underground development in the Upper Beaver Gold project area. Indigenous Nations were also informed as soon as Agnico Eagle was aware that there were technical issues in that area. When it has been determined that the new findings were likely to result in a change to the project design, a specific engagement approach was initiated, which includes the following good practices:

- Invite Indigenous Nations to confirm participants list;
- Offer technical support for the use of videoconference software when necessary;
- Agree on the agenda with the participants;
- Explain meetings objectives;
- Explain what kind of input was expected;
- Share and validate meeting reports with participants to make sure they reflect the discussions;
- Share presentations with participants.

Key issues raised to date by Indigenous Nations related and/or applicable to the Upper Beaver Gold project include (note that this is not a complete list and engagement is ongoing; Appendix B should also be reviewed):

- Maintenance of access to sites of interest such as the Beaverhouse Lake boat launch, the Traditional Trail and the Beaverhouse Lake access;
- Potential impacts (direct and indirect) to traditional sites;
- Consider Indigenous Knowledge during Impact Assessment and respect the confidentiality of Indigenous Knowledge and Land Use information;
- Consideration of potential impacts on wildlife (and including Moose and furbearers) in the project's mitigation measures;
- Consideration of potential impacts on water quality, fish habitat and fish populations in the project's mitigation measures;
- Participation in baseline studies (i.e., wildlife, aquatics, etc.);
- Enhancement of positive socio-economic effects while minimizing adverse socio-economic effects.

As part of Agnico Eagle's will to optimize engagement outcomes and consolidate relationships based on respect and trust with Indigenous Nations, input collected during the engagement approach conducted with Indigenous Nations before and during the preparation of the present Initial Project Description, has been documented in a table in Appendix B. The table aims to show direct relation between received input and results of engagement.



Good practices previously presented will continue to be implemented. Future activities are anticipated including the continuation of the activities completed to date as described above. Main topics and objectives for the engagement activities planned in 2021 are:

- To involve Indigenous Nations in the baseline studies process depending on each Nations' topics of interest and capacities;
- To validate with Indigenous Nations the engagement activities planned in 2021 and adjust it if deemed necessary;
- To collaborate with Indigenous Nations for Indigenous Knowledge study production to inform baseline conditions and Impact Assessment;
- Validation with Indigenous Nations regarding interpretation and use of Indigenous Knowledge in the Impact Assessment documentation;
- Information sharing by mail and email regarding proposed activities and works;
- Newsletters;
- New tools to inform the public such as a project specific website:  
<https://upperbeaver.agnicoeagle.com/>.

Agnico Eagle will engage with Indigenous Nations in a culturally appropriate manner. Agnico Eagle will respect engagement protocols and procedures and will work with each Nation to understand appropriate methods of communication and engagement. Additionally, Agnico Eagle will engage as appropriate with diverse population groups of Indigenous Nations to gather varying perspectives of the project based on their identity factors, including: women, youth, elders, men, etc. It is recognized that diverse population groups may experience impacts and benefits differently from one another. As such, Agnico Eagle will tailor how to engagement with diverse population groups within each Nation based their specific protocols. For example, it is expected that Elders would prefer in-person dialogue and may require a translator, while engaging youth more interactive activities could be used such as games to invite and enhance participation.

It is Agnico Eagle's intention to maintain engagement activities with Indigenous Nations as the project progresses, as reasonable. A specific plan for future engagement in connection with the Impact Assessment process if applicable, will be designed and validated with Indigenous Nations and the Agency at the end of 2021, if Tailored Impact Statement Guidelines are received. Agnico Eagle is committed to ongoing engagement with Indigenous Nations that is clear and transparent. Engagement activities will be conducted in a manner that respects and reflects the culture, protocols and values, as well as traditional land use practices of Indigenous Nations.

Agnico Eagle understands that the COVID-19 pandemic has put a strain on meaningful engagement with Indigenous Nations and time to review documents. As the COVID-19 pandemic is continually changing the environment, Agnico Eagle will adapt methods of engagement accordingly and will host face-to-face meetings with Indigenous Nations when they are open to meeting under the proper health protocols.



#### **A.5 Regional Studies / Assessments**

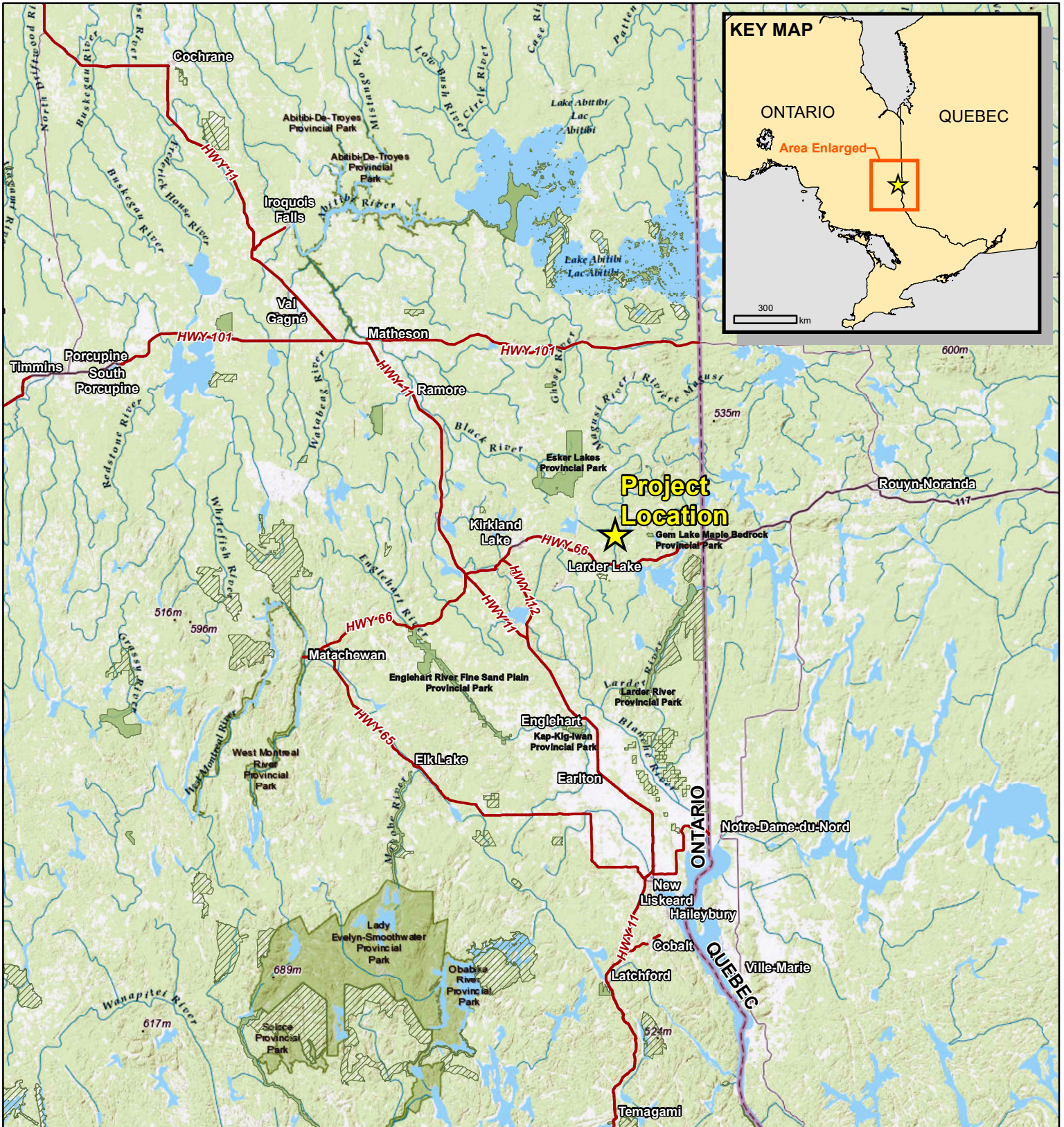
In discussion with the Impact Assessment Agency, there are no other relevant regional studies / assessments. There are no regional studies or Regional Assessments close to the location of the proposed project.

Project-specific environmental and engineering studies are ongoing to inform the design and approvals process for the Upper Beaver Gold project.

#### **A.6 Strategic Assessments**

This Initial Project Description has fully considered the Strategic Assessment of Climate Change developed by Environment and Climate Change Canada, including assessment of net greenhouse gas emissions associated with the project (see Section E.5). In discussion with the Impact Assessment Agency, there are no other applicable strategic assessments.





P:\2020\Projects\OMEMA2008Z\_Agnico\_Upper\_Beaver\IA111\_GIS\Proj\_Description\MXD\_Maps\Project\_Location\_5.mxd

**LEGEND**

- Project Location
- Regional Highways
- Conservation Reserve
- Provincial Park

**NOTES:**  
 - Background topographic map information extracted from ESRI Base Map Services  
 - Additional park information, conservation reserve and highway information extracted from Land Information Ontario (NDMNR), Queen's Printer for Ontario, 2020/2021

Datum: NAD83  
 Projection: UTM Zone 17N



**UPPER BEAVER PROJECT**

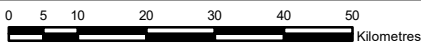
**Project Location**

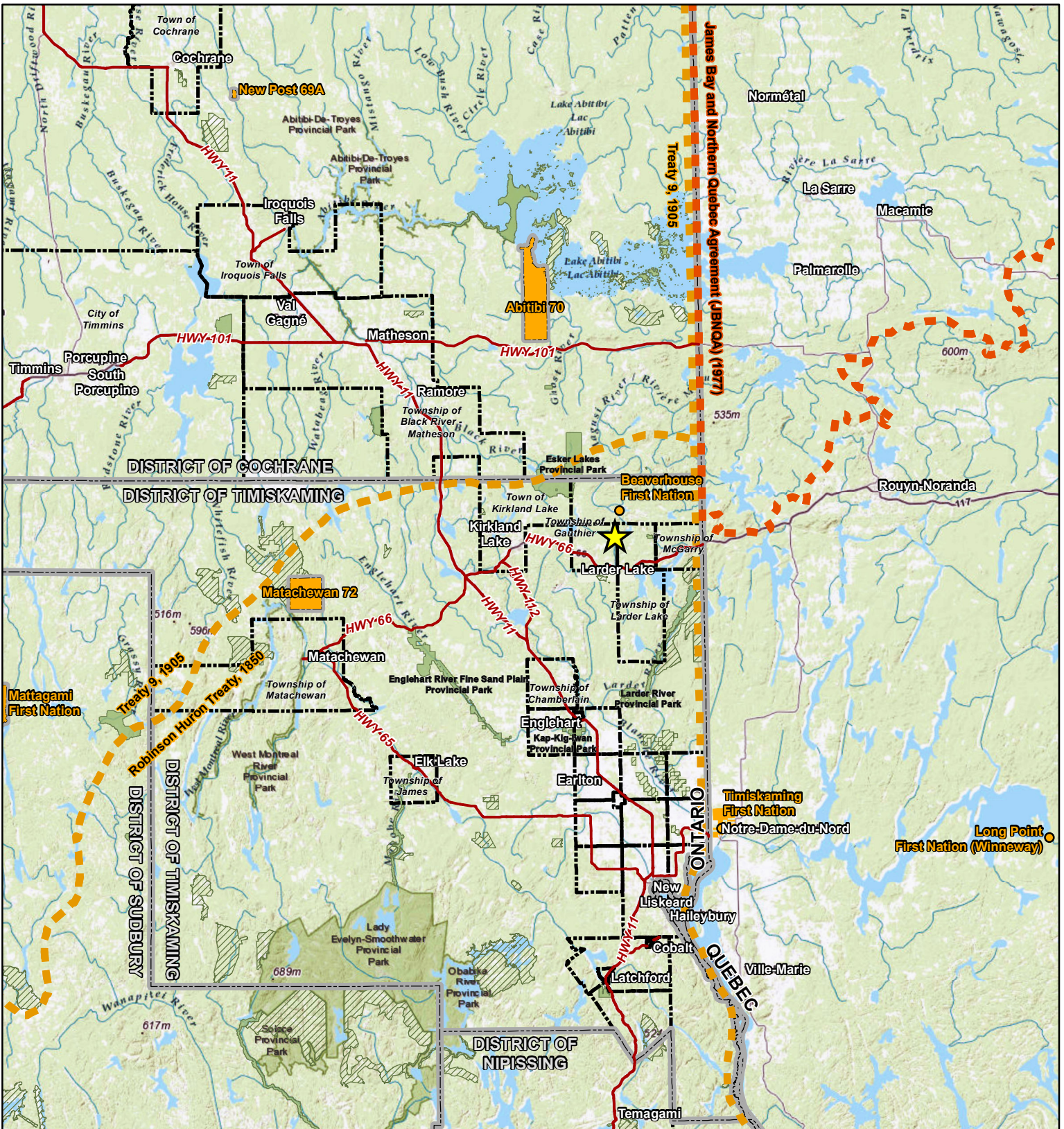
PROJECT N<sup>o</sup>: OMEMA2008

FIGURE: A.1

SCALE: 1:1,100,000

DATE: August 2021





P:\2020\Projects\OMEMA2008Z\_Agnico\_Upper\_Beaver\IA111\_GIS\Proj\_Description\MXD\_Maps\LocalComm\_FN\_5.mxd

**LEGEND**

- Project Location
- Regional Highways
- Upper Tier Municipal Boundary
- Lower Tier Municipal Boundary
- Conservation Reserve
- Provincial Park
- First Nation Reserve/Community
- First Nation Treaty Boundary (modern)
- First Nation Treaty Boundary (historic)

**NOTES:**

- Background topographic map information extracted from ESRI Base Map Services
- Additional park information, conservation reserve, highway information and Upper and Lower Tier Municipal data extracted from Land Information Ontario (NDMNR), Queen's Printer for Ontario, 2020/2021
- First Nation Treaty Boundaries (historic) extracted from "Historic First Nations Treaties in Canada - GIS dataset of pre 1930 treaty boundaries", 2000, Global Forest Watch Canada.
- First Nation Treaty Boundaries (modern) extracted from Government of Canada Open Portal, 2019

Datum: NAD83  
Projection: UTM Zone 17N



**UPPER BEAVER PROJECT**

**Regional Communities and First Nations**



PROJECT N <sup>o</sup> : OMEMA2008	FIGURE: A.2
SCALE: 1:1,100,000	DATE: August 2021

## **B. PROJECT INFORMATION**

### **B.1 Purpose and Need for Project, and Potential Benefits**

The purpose of the project is to produce gold doré bars and copper concentrate for sale, by constructing and operating a mine, processing plant and associated facilities (the Upper Beaver Gold project). A preliminary site plan is provided in Figure B.1 and cross section schematic of the proposed mine development is shown in Figure B.2. Doré bars and copper concentrate are semi-pure products of gold and silver, and copper that will be trucked off site for further purification. Gold and copper are metals with many applications resulting in a need for these materials, including:

- Building construction including wiring (copper);
- Art, jewellery, medals and tableware (copper and gold);
- Computers and electronics (copper and gold);
- Medical tools and devices (copper and gold);
- As a monetary exchange medium or coins (gold and copper).

The demand for copper and gold is anticipated to grow in coming years.

The corporate strategy of Agnico Eagle is to build and to maintain a pipeline of high-quality mining projects, to replenish mineral reserves and production on an on-going basis, while maintaining the quality, manageability and fit of the Agnico Eagle future portfolio. Based on information currently available, the Upper Beaver Gold project meets this corporate need.

On a broader scale, metal mining is needed because it is a major economic driver for Ontario and Canada. It provides a large number of direct jobs and indirect employment. In Ontario, mining creates 26,000 direct jobs and approximately another 46,000 indirect jobs (OMA 2021). The Upper Beaver Gold project is expected to have a positive effect on the local and regional economy. During all consultation activities to date, Agnico Eagle have received inquiries and comments regarding employment, business and training opportunities. Up to approximately 400 to 600 permanent jobs are anticipated from the project, as well as a large number of contracts for qualified contractors in the region. Agnico Eagle is committed to collaborating with Indigenous Nations to develop and expand current cultural awareness training and will provide the training to project personnel and subcontractors on an ongoing basis.

The project is not expected to result in a large change in regional or local population but may contribute to modest growth in the base population within commuting distance from the site. Training and work experience are expected to result in capabilities that are transferable to other economic sectors for local residents and contractors. During the Impact Assessment, potential changes / effects (both positive and negative) will be assessed, and plans to monitor, measure and mitigate the negative effects and enhance the positive effects will be identified.

With respect to the need for the production of gold and copper:

- Gold is used within the monetary system of many countries, in jewellery and art, and for industrial uses such as electroplating;
- Copper is heavily used in electrical equipment, industrial machinery and in construction, taking advantage of its conductivity properties.





The objective of the Upper Beaver Gold project is to provide a return on investment to shareholders of Agnico Eagle while operating in a socially and environmentally responsible manner following the Agnico Eagle Sustainable Development Policy, accessible at:  
<https://www.agnicoeagle.com/English/sustainability/our-approach-and-commitments/default.aspx>.

## **B.2 Applicable Physical Activities Regulation Conditions**

A federal Impact Assessment for the Upper Beaver Gold project could potentially be required under two scenarios:

- If the project meets the requirements under the *Impact Assessment Act*; or
- If the project is designated by the federal Minister of Environment and Climate Change Canada as requiring an Impact Assessment.

If the following conditions of the Physical Activities Regulations (SOR/2019-285) pursuant to the *Impact Assessment Act* are met (or others not listed below), documentation must be provided to the Impact Assessment Agency to assess whether an Impact Assessment is required. The following conditions of the regulation may apply to the Upper Beaver Gold project based on the current preliminary project design:

*18 The construction, operation, decommissioning and abandonment of one of the following:*  
*(c) a new metal mine, other than a rare earth element mine, placer mine or uranium mine, with an ore production capacity of 5,000 tonnes per day (tpd) or more*  
*(d) a new metal mill, other than a uranium mill, with an ore input capacity of 5,000 tpd or more.*

*60 The construction, operation, decommissioning and abandonment of a new structure for the diversion of 10,000,000 cubic metres per year (m<sup>3</sup>/yr) or more of water from a natural water body into another natural water body.*

Based on the current project design, the maximum rate of ore mining and processing at the Upper Beaver Gold project is expected to be between 4,000 and 10,000 tpd. The mean annual flow of the Misema River at Beaverhouse Lake near where it will require diversion, has been estimated as in the order of 90 million m<sup>3</sup> per year (2.9 m<sup>3</sup>/second). The Upper Beaver Gold project is therefore expected to meet the conditions listed above of the Physical Activities Regulations, and Agnico Eagle is submitting an Initial Project Description for review by the Impact Assessment Agency.

The Upper Beaver Gold project is not part of a larger project that is not listed on the Project List.

## **B.3 Activities, Infrastructure, Structures and Physical Works**

### **B.3.1 Overview**

Agnico Eagle is planning to develop, operate and eventually reclaim a new underground and open pit, gold and copper mine at the Upper Beaver Gold project site. The mine will expand upon and/or modify historical underground workings, as well as facilities being developed as part of the proposed advanced exploration program where practical, in order to mitigate and/or reduce environmental impacts.



### B.3.2 Existing Historical Facilities and Infrastructure

The Upper Beaver Gold project site has a long mineral exploration and development history. Gold was discovered west of Beaverhouse Lake in 1912. Since that time there have been ongoing but periodic times of exploration and underground mine / development, as well as a number of ownership changes as is typical of the northeastern Ontario historic mining areas (see Section C.7.1).



The names associated with the past production periods were:

- La Mine d'Or Huronia, 1912 to 1919;
- Argonaut Gold Mines, 1919 to 1935;
- Upper Beaver Gold Mines, 1965 to 1972.

Table B.1 provides a summary of the existing mine hazards present on the site or in the immediate vicinity of the proposed Upper Beaver Gold project. By establishing an open pit, Agnico Eagle will mitigate some of these historic liabilities, including historic tailings and mine rock in York Lake. Agnico Eagle will consult with primary stakeholders and Indigenous Nations regarding remediation of the historic liabilities present. The location and scale of the facilities is shown in Figure B.3.

Current and past owners have taken actions to protect the public from the historic mine hazards on the property, including rehabilitation, fencing installation and repairs, and placement of appropriate signage.

### B.3.3 Ongoing Exploration-related Facilities and Infrastructure

Periodic surface drilling programs have been ongoing for a number of years at the Upper Beaver Gold project site and may continue as needed to support resource delineation (exploration) and to collect technical information (geotechnical and hydrogeological information). These programs are typically supported by temporary mobile trailer(s) and drill rig(s). The background image shown in Figure B.1 reflects past tree clearing at the site related primarily to forestry or exploration activities.

Agnico Eagle is also conducting other exploration programs in the region that are unrelated to the Upper Beaver Gold project, which may or may not continue in parallel with the project.

Agnico Eagle currently has environmental applications in progress with provincial ministries for an advanced exploration program that could be started in 2022 to collect a bulk sample of approximately 60,000 t from at least three underground areas at the Upper Beaver Gold site. The bulk sample and associated test work is required to confirm future mining and milling methods for production mine (the Upper Beaver Gold project). The existing historic underground working will be accessed to extract the bulk sample by means of an exploration shaft and new portal.

Facilities required to support the advanced exploration program include:

- Exploration shaft to underground;
- Surface exploration portal and ramp to access the underground workings;

- Underground workings;
- Air intake (1) raise (narrow inclined opening to underground from surface) with associated heating equipment and exhaust raises (2) for ventilation underground;
- Mine rock stockpile (approximately 2,000,000 t);
- Overburden stockpile (approximately 250,000 t);
- Ore pad, stockpile (approximately 60,000 t) and sorting area;
- Shaft complex (headframe, hoist room, compressor house, mine dry (change room), maintenance shop);
- Modular offices, lunchroom and first aid (currently present);
- Storage building and laydown area(s);
- On-site roads, security gatehouse, security fencing and parking;
- Diesel fuel tanks (<100,000 litres) and propane tanks;
- Electrical substation and emergency generator;
- Water management facilities (retention pond, collection ponds, ditching, treatment plant and effluent discharge pipeline);
- Sewage treatment plant and potential potable water treatment plant;
- Temporary industrial waste storage bins;
- Fresh water intake and pump house;
- Explosives magazine / storage (on surface and underground);
- Refurbishment of the 44 kilovolt (kV) power distribution line from Highway 66;
- Potential aggregate source on site;
- Improvements to existing site access road (Beaverhouse Road) including culverts if needed.

Ongoing activities related to exploration and advanced exploration programs are expected to include:

- Obtaining environmental approvals for the advanced exploration program;
- Ongoing consultation and engagement regarding the advanced exploration program;
- Completion of detailed engineering studies and associated field investigations;
- Completion of legal / business / land agreements if any;
- Corporate (internal) decision to proceed to mining based on results of advanced exploration program;
- Hiring of individuals and contractors;
- Dewatering of the mine to allow safe access and treatment of the mine water withdrawn;
- Development / re-development of a shaft to underground (approximately 1,500 m depth);
- Establishment of a headframe, hoist room and associated buildings and infrastructure;
- Development of a portal and ramp for access the ore body at depth at approximately the 1,390 m level;
- Use of explosives underground to break up rock to allow removal to the surface and off site as needed;
- Development of raises and ventilation infrastructure to provide safe working conditions underground;

- Extraction and transport of waste mine rock to the surface for storage;
- Extraction of a bulk ore sample at depth for shipment off site for additional testing and study;
- Completion of exploration drilling from underground;
- Maintenance of above ground and below ground equipment and facilities;
- Circulation of warmed air and ventilation of air from the underground workings;
- Pumping, treatment and discharge of mine water from the underground workings;
- Control of emissions of dust and noise;
- Environmental monitoring, including as required by environmental approvals;
- Maintenance of site security;
- Progressive and final reclamation of the site, including exploration / advanced exploration facilities as applicable, if decision to proceed to mine development does not occur.

Once the advanced exploration program is approved, ore samples (less than 60,000 tonnes) can be taken from the underground workings to be trucked off site for testing to help determine if the Upper Beaver Gold project will go ahead and to support final project design. There will be no processing of ore extracted from underground during the advanced exploration program on site and no tailings storage on the site. Workers for the advanced exploration project, like for the current surface exploration program and for the future mine, will commute to the site daily and live in local communities.

#### **B.3.4 Proposed Mine Facilities and Infrastructure**

Agnico Eagle is planning to develop, operate and eventually reclaim a new open pit and underground, gold and copper mine and processing facility at the Upper Beaver Gold project site. The underground mine and associated surface facilities are proposed to be placed on lands held by Agnico Eagle, utilizing and/or expanding on the advanced exploration facilities as practical to minimize environmental effects. Advanced Exploration facilities not required or modified for the mine, are anticipated to be reclaimed during the mine operation phase.

Table B.2 lists the major facilities and compares the advanced exploration and proposed mine site plans for clarity on the proposed mine facilities and infrastructure. The list of the primary Upper Beaver Gold project facilities and infrastructure is based on the current preliminary design and is subject to change with additional engineering.

The underground and open pit mine are proposed to operate year-round on a continuous (24-hour) basis, except for periodic maintenance and similar disruptions. Extracted ore from the mine will be transported to the surface for processing in on-site facilities. The pit will be in operation for only the first four or five years of operation. Based on the proposed processing rate and current information regarding the ore body, the life of the mine could extend 14 years or more years.

#### **Underground Mine**

The underground mine will expand on the historical / advanced exploration workings. Ore will be extracted from stopes (rooms) underground by conventional drilling and blasting. Oversized rocks will be managed through secondary blasting, use of a rock breaker and/or at an underground crushing facility, if developed. All ore will be either trucked to the surface via a ramp or transported via the shaft. Personnel will also access to the underground workings by means of the ramp but primarily by shaft.



Mineral waste associated with the mine development will be re-used to backfill the mine as practical. Excess mineral waste (mine rock) that cannot be re-used underground immediately but cannot be retained underground, will be stored on surface in a stockpile. The rock may be returned underground as needed for support, re-used as aggregate if warranted by rock geochemistry, or will remain on surface and be reclaimed in place.

Underground mining alone or in combination with open pit mining described below, will occur at a rate of approximately 4,000 to 10,000 tpd of ore as an annual average. The mining rate will be confirmed through ongoing engineering and design activities. Underground mining operations will be supported by necessary ventilation-related infrastructure and a surface or underground explosives storage facility.

### **Open Pit and Diversion**

A portion of the ore body proposed for underground mining that is key to the Upper Beaver Gold project economic viability (and already mined historically) is located at relatively shallow depth near York Lake. Rock stability investigations during 2019/2020 identified that there was insufficient competent rock in place between the surface the first old mine workings. Approximately 20 metres (m) of unconsolidated materials and 20 m of bedrock are present above the proposed mine workings. Agnico Eagle and their technical consultants are concerned that mining under this material could cause an instability, and potentially a catastrophic failure and collapse of these materials into the underground workings, causing the Misema River to flow into the underground mine. This could directly affect the safety of mine workers if any are present at the time. As a result of this assessment of rock stability, Agnico Eagle investigated potential engineering options. Through expert studies it was determined that it would be best to divert the water flowing from Misema River into the York Lake around the area, and remove the sediments and rock under the lake as well as the ore by an open pit. This would mitigate any short term or long term instability concerns, and would provide the opportunity to rehabilitate the historic tailings and mine rock located in and beside York Lake.

Agnico Eagle proposes to develop an open pit that will partially intersect York Lake at surface, but avoid Victoria Creek to the west. The pit will be about 100 m depth and 300 m in diameter. The benches in rock will be developed by blasting using an ANFO (ammonium - nitrate / fuel oil) explosive and/or an emulsion explosive. Water in the open pit will be managed by an underground pumping station that will keep the open pit dry. As needed, small pumps will be installed in the base of the pit for trapped water. Excess water will be pumped to the surface for management. The slopes of the pit walls will be designed for safety based on industry standards.

In order for the open pit to be developed, channels will be created and dykes placed, so that the Misema River can be safely diverted just around York Lake maintaining the integrity of the river system once channel is stabilized. The conceptual design subject to detailed engineering has four short dykes (approximately 30 to 75 m in length) placed at the west end of Ava Lake and below York Lake, and two channels (25 and 125 m in length) joining Ava Lake directly to the Misema River downstream of York Lake (Figure B.1). The channels will be designed to handle the necessary water flows, as well as passage of fish, at least equivalent to the current conditions. After that is completed, fish will be transferred from York Lake, and York Lake will be dewatered. There is the potential that on closure of the mine, the open pit could be reflooded to create a larger lake at the current York Lake location.



Ongoing exploration has also identified small ore deposits close to the surface on the plateau area south of the tailings storage facility. This mineralized zone could potentially be extracted without loss of potential resources, while providing additional opportunities for site water management.

### **Stockpiles**

Stockpiles will be created on the site to store ore, mine rock, overburden and organics resulting from the open pit and underground mine development. There will also store overburden and organics stripped during general site development. The current design has mine rock from the operations phase stored in an expansion of the advanced exploration mine rock stockpile. A new ore stockpile, overburden stockpile (Figure B.1) and organics stockpile (location to be determined) will be created by the mine development.

Preliminary storage capacities of the stockpiles for the Upper Beaver Gold project are the following, subject to revision during ongoing engineering:

- Run of mine ore stockpile: approximately 0.3 to 0.5 million tonnes (Mt);
- Mine rock stockpile: approximately 12 Mt;
- Overburden / organics stockpile: approximately 2.5 Mt.

A low grade ore stockpile and potentially a temporary stockpile for off-site ore transported to site for processing may also be created. Runoff from the stockpiles will be collected in ditches / ponds for additional management, re-used for ore processing, or treated to meet discharge criteria (if the criteria are not already met), and discharged to the environment.. Additional details will be available regarding the stockpile designs as the engineering studies progress and a better estimation of stockpiling requirements becomes available. It is unknown at this time whether stockpile(s) will overprint minor creeks which may contain fish.

### **Ore Processing**

From the ore stockpile, ore will be transferred for sizing to a primary crusher and then onto a secondary and tertiary crusher by conveyor. Once the ore is re-sized, it will be conveyed for temporary storage in a crushed ore dome, before being transferred to the processing plant for gold and copper recovery. Although not currently planned, there is also the potential that the processing plant could also process ore trucked to the site from other compatible deposits at the same time as processing the Upper Beaver Mine ore, or potentially after the on-site ore resource is depleted. Development of other ore bodies to feed the Upper Beaver Gold processing plant in the future (if any) will be required to meet all federal and provincial regulatory processes at the time, and accordingly, may require completion of an additional Impact Assessment / Environmental Assessment process.

Processing methods will entail several stages of conventional mineral processing, such as: crushing, grinding, flotation and cyanidation. The processing plant has been designed to produce both doré bars and copper concentrate inside one building, using different equipment, chemicals and processes. These products will be periodically trucked to existing facilities off site for additional purification / refining, likely about one to two trucks per day.

Ore processing will occur at a rate of approximately 4,000 to 10,000 tpd of ore as an annual average. For contingency purposes, an additional ore throughput has been considered in the above the planned output (i.e., maximum rate of ore processing of approximately 10,000 tpd as an annual average).



### **Tailings Storage**

The primary by-product of ore processing is tailings. Tailings consists of ground rock and associated process effluents that result from the processing of ore. Tailings are expected to be treated for cyanide destruction before being filtered and sent to a surface storage facility (dry stacking). A paste backfill plant will allow a portion of the tailings to be mixed with a binder (such as cement) that will increase the strength of the materials, so that they can be returned to the underground workings to provide additional underground stability without negatively affecting environmental aspects.

Agnico Eagle is currently planning tailings from the processing of the ore to be stored in an on-site dry stacked tailings facility, subject to further engineering. On-site processing will include the filtration of the tailings to dewater the tailings and create the dry filter cake. The filtered tailings from the plant will be trucked to the tailings facility for stacking, likely with a conveyor-like system and bulldozer(s). Ditching will collect runoff from the dry stack tailings facility for direction to a collection pond for further management.

### **Buildings and Yard Areas**

The following permanent facilities are planned for the Upper Beaver Gold project which may either be the existing advanced exploration facilities, or new structures designed for longer term usage:

- Processing plant and primary crusher with conveying system;
- Tradeshop / maintenance, warehouse, coreshack, laboratory, outbuildings and laydown areas;
- Offices;
- Explosives storage facilities.

These will be supported by related piping and power infrastructure as needed.

The preliminary site layout has been developed to take advantage of the advanced exploration program buildings and facilities as well as existing geotechnical conditions, in order to minimize land disturbance and to provide adequate setbacks from existing watercourses where practical. Final setback distances will be determined during detailed engineering design. The primary goal of the layout has been to ensure efficient operating conditions with a compact footprint to minimize overall environmental effects. Lighting will be provided as appropriate to ensure a safe working environment.

The preliminary plant site location has been placed to avoid potential ore resources, and where geotechnical investigations indicate the presence of bedrock at or near the surface. Related exterior and interior tankage will be designed to ensure that any spillage is captured prior to release to the environment. Special equipment and handling procedures will ensure that cyanide and other reagents are stored and used safely.

The tradeshop / maintenance will allow indoor maintenance on heavy equipment. Wash bay(s) will be present in order that trucks and other equipment can be washed to allow effective maintenance and extend equipment life with wash water that has been captured and treated. A warehouse may also be established.

It is expected that only explosives storage area will be developed on site. Explosives needed for open pit and underground mining (and potentially for site preparation / diversion construction) will be prepared by a contractor and delivered to site under their care and control as required. The location of any explosives-related facility on site will follow all federal regulatory guidance, including as related to siting.



A network of access and haul roads will be established within the site as needed, utilizing the existing road network or road network developed during the advanced exploration as reasonable (Figure B.1), and minimizing water crossings. These roads are expected to be contained primarily within the footprint / preliminary project boundary shown in Figures B.1 and C.2. Any new roads will be constructed of aggregate or non-potentially acid generating mine rock. Three new water crossings are currently proposed for the Upper Beaver Gold project, likely as culverts, but potentially as bridges (Figure B.1). One or two existing water crossings may also require upgrading.

### **Domestic and Industrial Wastes**

Domestic and special management / hazardous materials resulting from the construction and operation of the Upper Beaver Gold project will be periodically shipped off-site to appropriate facilities. A demolition landfill may be established on the site for disposal of non-hazardous demolition wastes at closure.

Domestic sewage during the construction and operating phases will be treated by an appropriately-sized, technically acceptable method, such as a sewage treatment plant, including potentially an expansion of the advanced exploration system.

### **Water Management Facilities and Drainage Works**

The underground mine will intercept groundwater, while the open pit will collect groundwater, runoff and direct precipitation. Agnico Eagle proposes to expand the water management system established to support the advanced exploration program, to accommodate the operating mine. Minewater from the required dewatering of the underground mine and open pit to extract the ore will be collected in sumps and pumped to a surface central water retention pond for additional management. Precipitation and surface runoff that comes into contact with mine-related facilities will be collected in ditches / collection ponds and also pumped to the primary retention pond.

The primary retention pond will be designed with sufficient capacity to support the retention and treatment of contact water and to provide water for processing operations. The water management system will ensure that excess water from the retention pond meets all regulatory requirements and can be discharged to the environment. The discharge location has not as yet been determined but will be selected to ensure that the receiving watercourse has sufficient assimilative capacity. The precise discharge location has not as yet been determined but is expected to be to the Misema River downstream of the Victoria Creek inflow to the Misema River. If that location is selected, a pipeline of approximately 1,500 m length will be needed. A diffuser may be used in the water to ensure rapid mixing. The final location will be selected with care to make sure that the receiving watercourse can receive this effluent and all related regulatory requirements are met, and could potentially be the same as for Advanced Exploration.

Additional fresh water will be required for ore processing and a fire water supply, and is expected to be pumped from Ava Lake. A potable water treatment plant could be constructed to treat water for use on site.

### **Access**

There is an existing site access connected to Beaverhouse Road. It is expected that a portion of the access road on site will require re-routing to avoid the open pit. An access road for local cottagers and other land users is expected to be developed so that local traffic can avoid the secure area of the mine development.



### **Power Supply**

A 44 kilovolt (kV) distribution line will provide power for the advanced exploration program. While this may be sufficient for the mine operations, but there is a high potential that development of a 115 kV transmission line with connection to the local electrical grid could be required. A preliminary route for a 115 kV transmission line is shown in Figure B.3. An emergency diesel-fired generator will also be present on the site.

### **Accommodation**

An accommodations complex (or similar) is not proposed to be developed as part of the Upper Beaver Gold project due to the close proximity of local communities. Agnico Eagle anticipates that workers will commute daily from existing communities / residences located within about an hour drive in Ontario and Québec.

### **Compensatory Aquatic Habitat**

A plan for habitat compensation will be developed which will be consulted upon and approved through a rigorous federal process, and when implemented, will mitigate effects to aquatic resources including habitat loss such as at York Lake.

### **Aggregate Operations**

Aggregate will be required to develop the Upper Beaver Gold project site. The Advanced Exploration aggregate source is expected to continue to be used until no longer available. Other potential sources of aggregate for the Upper Beaver Gold project are under investigation, but could include a new source under the care and control of Agnico Eagle. Agnico Eagle is planning a field investigation during Fall 2021 to assess a potential aggregate source in a fluvio-glacial system identified by a geomorphology study southeast of the site (see Figure B.1). Should the investigation be successful, an aggregate operation may be developed to support the mine at the best location within the system. The investigation and any future potential aggregate extraction will occur only on Crown land and subject to obtaining the necessary authorizations. Further engagement will follow should it be determined that a viable aggregate source is present.

### **Preliminary List of Activities**

Tables B.3a, B3b and B3c provide a preliminary listing of activities associated with the construction, operation, decommissioning of the Upper Beaver Gold project.

### **Preliminary Decommissioning Approach**

Progressive reclamation (including of historic mine hazards) and final closure of the Upper Beaver Gold project site will be governed by the Ontario *Mining Act*, and its associated Regulations and Codes, and will be informed by ongoing engagement, including with Indigenous Nations. The limited footprint and design of the project suggests that there may be limited opportunities for progressive reclamation during operation, but progressive reclamation will be pursued as reasonable. The Act requires that a Closure Plan be filed for mining project before construction, and that financial assurance be provided to ensure that sufficient funds are in place to carry out the decommissioning activities.

A preliminary description of the proposed reclamation measures is provided in the text that follows, subject to consultation, additional engineering and regulatory review. As the footprint of the Upper Beaver Gold project site is small, it is expected that the active phase of reclamation of the project will be completed in less than one year after operations cease. Environmental monitoring will continue after reclamation is completed.



### Underground Mine

Any underground equipment (heavy equipment, pumps, pipelines, ductwork etc.) remaining at the time of closure will be purged of any hazardous fluids and materials and left in an inert state underground; or removed and managed according to regulations at the time, which may require shipment to an off-site landfill or recycling centre.

All openings to the underground from surface will be secured in accordance with the Mine Rehabilitation Code of Ontario. This includes both new and historic accesses and raises.

Underground workings will be allowed to flood naturally through gradual groundwater seepage. As a result of the local topography and natural groundwater levels, the workings are expected to flood to below the final ground surface and no long term discharge from the workings is expected from any location (backfilled portal or capped raises).

### Open Pit

Naturally flooding of the pit with precipitation, groundwater and localized runoff will occur at the end of mine. There is the potential that enhanced flooding could occur, such as by transferring a limited portion of the spring melt water from the Misema River system into the pit at closure, pending regulatory approval. The approach to refilling the pit with water will be assessed further through the regulatory processes and detailed in the future regulatory Closure Plan. During pit flooding which is expected to coincide with the flooding of the underground working, pit lake water quality will be monitored and pit slopes that will remain above the final pit lake level will be reclaimed. Fencing or similar measures will be used to ensure public / wildlife safety while the pit floods to create a lake. Once the pit lake is at final level and the water quality meets all regulatory requirements, it is intended that the pit lake will be reconnected to the Misema River system to provide additional recreational opportunities and potentially restore aquatic habitat.

### Stockpiles and TSF

The primary potential closure concern with respect to the mineral wastes (mine rock, tailings and overburden) is the quality of runoff and seepage from the facilities. Preliminary geochemical investigations indicated that these materials are not potentially acid generating. These areas will be reclaimed, reshaped as needed for stability and to reduce potential for erosion, and revegetated to improve long term aesthetics.

### Water Management Facilities

Once dewatering of the underground workings ceases and on surface water no longer needs to be treated or managed, the on surface water pond treatment system will be decommissioned. The pond will be sampled to ensure acceptable water quality and will then be drained. Bottom settled solids in the pond will be tested, and if appropriate will remain in place, or will be otherwise managed (such as dredging and removed for disposal in the underground workings. Pond liner(s) if any, will be punctured to allow for natural drainage. The surrounding dykes will be breached and recontoured over the liner to allow natural drainage to the environment. Additional overburden will be placed if needed to support revegetation. Berms and ditches used on site will also be breached or regraded as needed to allow for natural drainage to the environment. The water discharge structure at the Misema River will be reclaimed by removing the pipeline on surface and reclaiming the discharge pad area (or by allowing passive regrowth).

### General Site Area

Agnico Eagle will pursue opportunities, and it is hoped that much of the equipment, tankage, machinery, pipelines, building and infrastructure waste materials generated through demolition, can be sold for reuse,



or recycled as scrap metal. Any building demolition wastes and equipment wastes that cannot be sold for reuse, or scrap, will be handled according to environmental regulations at that time, and are expected to be transported to an off-site waste management facility.

Concrete building foundation(s) will be broken up and reduced to near grade to allow drainage, and will be covered with overburden, graded and seeded. Wherever practical, clean demolition concrete will be used as a filling resource or will be recycled as crushed aggregate.

All general site access and haul roads, which will not be required for long term will be scarified (broken up), and revegetated when no longer needed to support final reclamation, long term site management and environmental monitoring. The road established for access to the boat launch will be left in place for continued use.

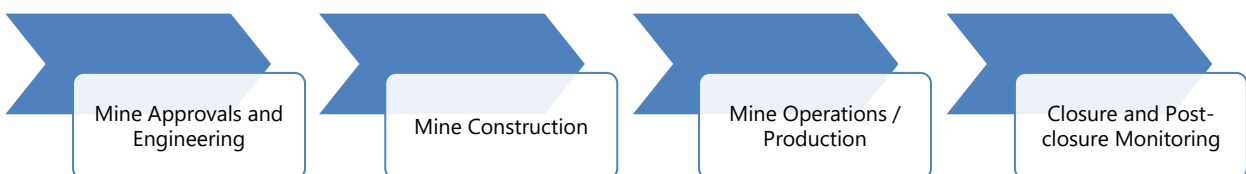
#### **B.4 Capacity Estimate**

The anticipated size or production capacity of the Upper Beaver Gold project, with reference specifically to the thresholds set out in the Physical Activities Regulations, is as follows:

- Metal ore extraction for the open pit and/or underground mine is planned at a nominal rate of between 4,000 and 10,000 tpd. During the years of open pit operation, there could be daily peaks of ore extraction (maximum rate of extraction) reaching up to 15,000 tpd.
- Processing of metal ore extracted from the Upper Beaver Gold project and potentially from other local exploration targets as yet defined, is planned at a nominal rate of between 4,000 and 10,000 tpd as an annual average over the life of the mine. The maximum potential ore processing plant input capacity proposed is 10,000 tpd.
- The Misema River will require diversion in order to establish the open pit that will allow future safe underground mining. The river flow is expected to exceed 10,000,000 m<sup>3</sup> per year, although hydrological analyses are ongoing. The predicted flow during the mine operations phase through the proposed diversions is expected to be on average approximately 91,500,000 m<sup>3</sup> per year (2.9 cubic metres per second) based on current information. Utilizing the long term modelled record, the maximum average annual flow diversion has been estimated at approximately 126,000,000 m<sup>3</sup> per year (4.0 cubic metres per second).

#### **B.5 Preliminary Schedule**

The Upper Beaver Gold project includes the potential development, operation and closure of an underground and open pit, gold and copper mine. The Upper Beaver Gold project is currently being evaluated from the exploration, engineering and environmental perspectives. Agnico Eagle is initiating the potential mine approvals process through submission of this Initial Project Description. The stages envisioned for the Upper Beaver Gold project are as follows:



The preliminary schedule for the project is described briefly below and shown schematically in Figure B.4:

<b>Time Period</b>	<b>Project Stage</b>
Engineering Studies	2020 to 2022
Impact Statement Planning Stage	2021
Impact Statement Preparation	2021 to 2022
Impact Assessment	2022 to 2023
Decision-making by federal Authorities	2022 to 2023
Post-decision and Environmental Approvals	2023 to 2025
Construction	2026 to 2027
Operation	2027 to 2040
Decommissioning and Closure <sup>(1)</sup>	2041 to 2042
Post-closure and Monitoring <sup>(1)</sup>	2043+

<sup>(1)</sup> Timing may be extended with additional viable ore resources not currently identified.

## **B.6 List of Potential Alternatives**

Agnico Eagle is a publicly traded company that proposes to develop and operate the Upper Beaver Gold project in order to provide shareholders with a reasonable return on investment. The underlying rationale for the project is the strong demand for metals in the global marketplace. With gold prices at sustained high levels, the economics of the Upper Beaver Gold project are expected to be such that Agnico Eagle can successfully produce gold and copper to provide shareholders with value. The alternative of abandoning the Upper Beaver Gold project (i.e., the no-action alternative) does not meet the purpose of the project. Delaying project development also does not meet the purpose of the project, as metal prices are at a sustained high level, and capital and operating costs are only expected to increase over time. Accordingly, there are no functionally different alternatives to the project that meet to needs and purpose of the project, and which are technically and economically feasible. The alternative of not proceeding to develop the mine and both the negative and positive consequences of this approach will be considered.

The Upper Beaver Gold project is at the early design stage. Accordingly, the alternative means listed below should be considered preliminary, and subject to revision during ongoing engineering, and consultation and engagement activities. The alternative of not proceeding to develop the mine and both the negative and positive consequences of this approach will be considered.

Technically and economically feasible alternative means will be considered during future studies and regulatory documentation, and may include the following alternatives and others. The following list is not intended to be exhaustive or all-inclusive and will be subject to the results of ongoing engagement and regulatory advice:

- Mine rock, overburden and organics storage (various stockpile locations, re-use as construction and reclamation material);
- Tailings storage methods and location (dry stack facility or conventional slurry facility, co-deposition, various locations, re-use as backfill underground);
- Water management and treatment (water re-use, applicable treatment technologies);
- Effluent discharge location (Misema River various locations);
- Watercourse realignments and structures (locations of diversion channels and dykes);



- Aquatic offsetting and compensation measures (to be determined through the rigorous federal approvals process);
- Solid waste management location (existing landfill off site, new landfill on site);
- Domestic sewage treatment method (package treatment plant or septic tile field);
- Water supply source (local lake or groundwater);
- Aggregate supply source (develop a dedicated aggregate resource on or near the site, re-use mine rock or purchase aggregate from suppliers);
- Site access road location (existing route, new route);
- New access to Beaverhouse Lake (to be determined through ongoing engagement);
- Power supply requirements (transmission line or diesel power);
- Mine decommissioning and closure methods
  - Open pit (fill with water and keep isolated, fill with water and reconnect to the Misema River when water quality is appropriate);
  - Demolition waste management (landfill on site or transport to existing landfill off site).

In consideration of the local site conditions, there are no alternatives methods that are economically viable for:

- Mining methods (constrained by ore location and geometry, and land ownership / tenure);
- Ore processing methods (controlled by laboratory testing and analyses to obtain optimal recovery utilizing full scale proven technologies);
- Location of process plant and related site infrastructure (limited by location of mine, land ownership / tenure and preference to limit overall site footprint as practical);
- Type and location of explosive storage and siting (strictly controlled by federal regulations and rock type / blast requirements).



**Table B.1: Existing Historical Mine Surface Features**

Type of Facility	Current Status	Proposed Status at end of Mine
<b>West of York Lake</b>		
Adit 1	Present, fenced	Removed with pit
Adit 2	Present, backfilled	Removed with pit
West Mill Foundation	Rehabilitated	-
Pumphouse Foundation	Present, fenced	Removed with pit
Stope close to surface	Present, fenced	Removed with pit
Raise 1	Present, fenced	Removed with pit
Raise 2	Present, fenced	Removed with pit
Raise 3	Present, fenced	Removed with pit
Raise 4	Present, fenced	Removed with pit
Raise 5	Present, fenced	Removed with pit
Raise 6	Present, fenced	Removed with pit
Shaft #3	Capped	Removed with pit
Shaft #3 – New Adit	Backfilled, rehabilitated	Removed with pit
Tailing Area No. 1	Partially revegetated / partially in York Lake	Removed with pit
Waste Rock Pile No. 1	Present, partially revegetated	Removed with pit
Waste Rock Pile No. 2	Large volume of rock removed / partially in York Lake and partially revegetated	Removed with pit
<b>East of York Lake</b>		
East Mill Foundation	Present, fenced; registered as archaeological site (Argonaut Stamp Mill, Borden Number DaGw-2) Stage 3 documentation completed and it is approved for removal	Will be rehabilitated
Shaft #1	Backfilled	-
Trench	Present east of York Lake, fenced	Will be rehabilitated
Tailing Area No. 2	Present partially revegetated	Will be rehabilitated
Tailing Area No. 3	Present partially revegetated / partially in pond draining to York Lake	Will be rehabilitated
Waste Rock Pile No. 3	Present	Will be rehabilitated

See Figure B.3 for location and scale



**Table B.2: Preliminary List of Mine Facilities and Comparison to Advanced Exploration Facilities**

Type of Facility	Advanced Exploration Program (AEP)	Upper Beaver Gold project
<b>Underground mine</b>		
- Shaft and hoist room	Yes	Minor modifications to AEP facility
- Surface portal and ramp	Yes	AEP portal, ramp will be extended at depth
- Underground workings	Yes	Expansion of historic and AEP workings
- Ventilation intake raise	Yes	AEP raise and 1 new proposed
- Ventilation exhaust raise	Yes	AEP raise and 1 new proposed
- Compressor building	Yes	Minor modifications to AEP facility
- Mine dry	Yes	New facility
<b>Open pit</b>		
- Open pit	No	New facility
<b>Misema River diversion</b>		
- Diversion channels	No	New facility (2 proposed)
- Dykes	No	New facility (4 proposed)
<b>Stockpiles</b>		
- Mine rock	Yes	Expansion to AEP stockpile
- Overburden	Yes	New facility
- Organic soil	Yes	New facility
- Ore	Yes	New facility
- Low grade ore	No	New facility
- Off-site ore	No	Potential new facility
<b>Processing plant area</b>		
- Primary crusher	No	New facility
- Secondary crusher	No	New facility
- Conveyors	No	New facility
- Crushed ore dome	No	New facility
- Mill	No	New facility
- Office	No	New facility
- Laboratory	No	New facility
- Electrical / mechanical shop	No	New facility
<b>Tailings</b>		
- Tailings storage	No	New facility
- Paste / backfill plant	No	New facility included in mill
<b>Other primary buildings / facilities</b>		
- Trade / maintenance shop	Yes	AEP facilities may be used or expanded upon if needed, or new facilities may be developed
- Warehouse / storage building(s)	Yes	
- Offices	Yes	
- Laydown areas	Yes	Expansion to AEP areas
- Contractor office / area	Yes	New facility
- Explosive storage – surface	Yes	New facility



Type of Facility	Advanced Exploration Program (AEP)	Upper Beaver Gold project
- Explosive storage – underground	Yes	Potential new facility (or AEP facility)
- Explosive manufacturing	No	No
<b>Water management</b>		
- Underground sumps	Yes	New facilities as needed
- Primary retention pond	Yes	Potential expansion of AEP facility
- Tailings collection pond(s)	No	New facilities (2 or more)
- Ditching and collection ponds	Yes	Expansion of AEP facilities
- Water management / treatment plant	Yes	Expansion of AEP facility or new facility
- Freshwater pumphouse	Yes	Potential expansion of AEP facility
- Potable water treatment plant	No	Potential new facility
- Water pumps and pipelines	Yes	Expansion of AEP facility
- Effluent discharge pipeline	Yes	Potential expansion of AEP facility
<b>Waste management</b>		
- Temporary solid waste storage	Yes	Potential expansion of AEP facility
- Domestic sewage treatment	Yes	Potential expansion of AEP facility
- Demolition landfill	No	Potential new facility for closure phase
<b>Power supply</b>		
- Emergency generator(s)	Yes	Potential expansion of AEP facility
- Onsite distribution lines	Yes	Ongoing use
- Electrical substation	Yes	Use / expansion if needed
<b>Fuel and reagents</b>		
- Misc. reagents / chemicals	Limited	Expanded storage will be required
- Propane tank farm	Yes	Potential expansion of AEP facility
- Diesel fuel tanks	Yes	Potential expansion of AEP facility
<b>Other on-site infrastructure</b>		
- Other pipelines	Yes	Expansion of AEP facility
- On-site access / haul roads	Yes	Expansion of AEP facility
- Scale	No	New facility
- Cottager / land users bypass road	No	New facility
- Security gatehouse / fencing	Yes	Expansion of AEP facility
- Yard storage areas	Yes	Expansion of AEP facility
- Coreshack	No	New facility
- Parking	Yes	Expansion of AEP facility





Type of Facility	Advanced Exploration Program (AEP)	Upper Beaver Gold project
<b>Off-site infrastructure</b>		
- Access road to site	No change	New facility, local re-routing at site required
- Refurbished 44 kV line	Yes	Continued use if / until transmission line available
- 115 kV electrical substation	No	At regional grid connection
- 115 kV transmission line	No	New line, connected to regional grid
- Accommodations	No	No



**Table B.3: Preliminary List of Activities for the Upper Beaver Gold Project**

**a. Construction Phase**

- Initiation and completion of engineering study(ies)
- Corporate decision to proceed
- Development and implementation of environmental protection and monitoring plan(s) for construction
- Ongoing engagement and consultation with stakeholders and Indigenous Nations
- Application for, and receipt of environment-related permits
- Hiring of individuals and contractors, and procurement of material and equipment
- Mitigation for heritage resources and other effects, if / as needed
- Upgrade of the access road to site and installation of culverts / bridges as needed
- Additional land clearing and implementation of erosion and sediment control measures
- Excavation and grading as needed
- Movement of construction materials to site
- Construction of new site facilities and/or expansion of existing facilities (see Table B.2)
- Development of compensation features as needed
- Construction of Misema River diversion and stabilization
- Activation of Misema River diversion
- Transfer of fish from York Lake and dewatering the lake subsequently to support pit development
- Stripping of overburden and initiation of open pit mine development
- Establishment of water management and treatment works, including ponds, pipelines and treatment facilities
- Expansion of mine waste management facilities as mine development proceeds
- Environmental monitoring and reporting, including work by Indigenous monitors as applicable

**b. Operations Phase**

- Receipt of outstanding environment-related permits
- Development and implementation of environmental protection and monitoring plan(s) for operation
- Ongoing engagement and consultation with stakeholders and Indigenous Nations
- Overburden and mine rock extracted from the open pit will be either stockpiled or used for progression reclamation
- Mine rock extracted from the underground workings will be stockpiled
- Ore will be extracted from the underground workings and open pit, and will be either temporarily stockpiled, or will be transported directly to the primary crusher for sizing
- Sized ore will be processed to recover the gold and copper in the same processing facility, and produce gold doré bars and copper concentrate that will be periodically shipped off site for sale
- Tailings produced from processing ore will be stored in a surface facility which will expand as needed
- As operations continue the underground mines will become progressively larger below the ground surface
- As operations continue the open pit will become progressively larger and deeper
- Progressive reclamation will occur of facilities when no longer needed / depleted
- Progressive reclamation of the open pit slopes and studies to ensure long term success of pit lake
- Ongoing management and treatment of waters for discharge of excess waters that meet regulatory requirements
- Ongoing management of chemicals and wastes

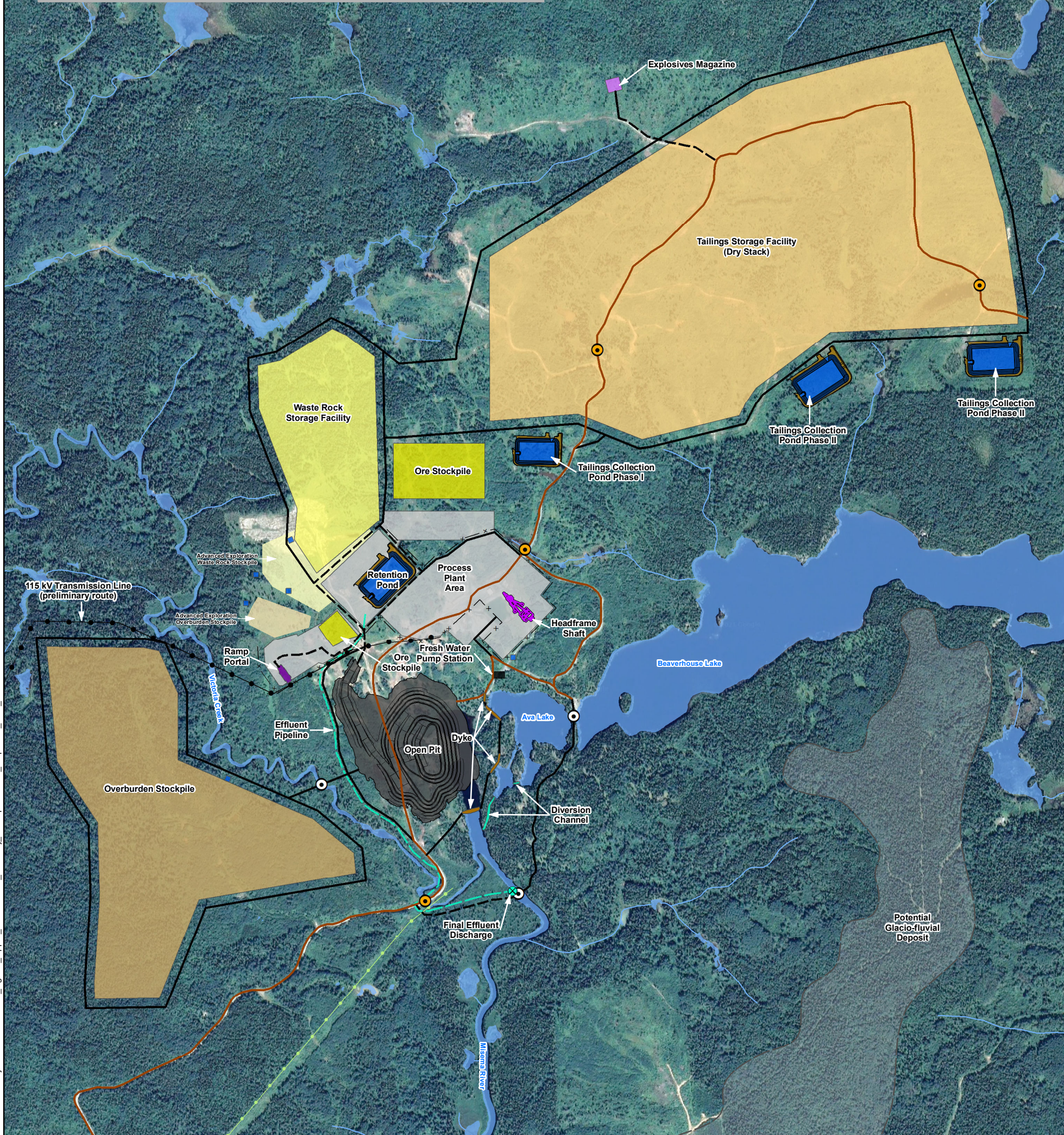
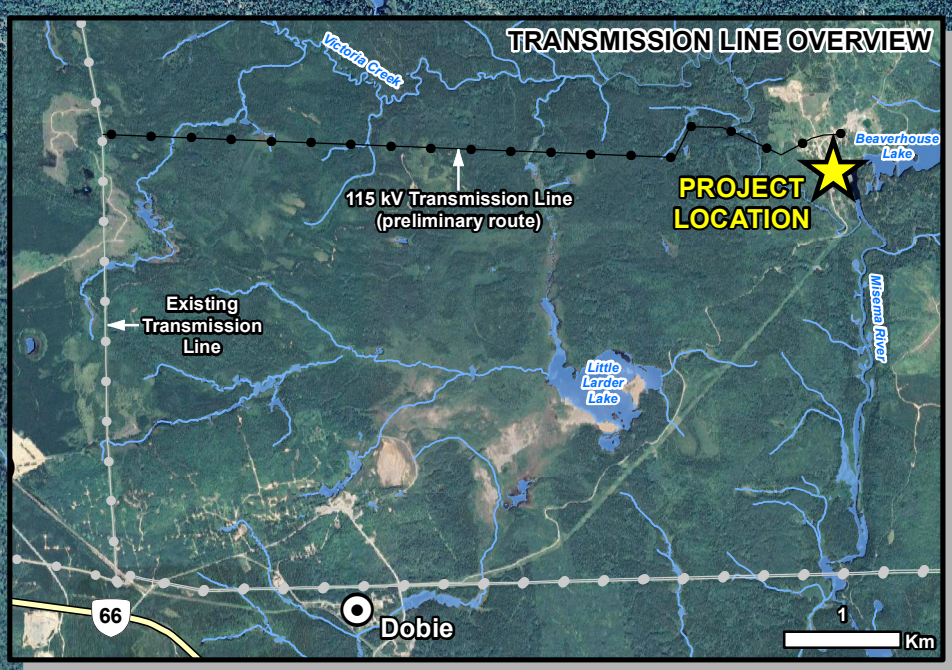


- Environmental monitoring and reporting, including work by Indigenous monitors as applicable
- Follow up environmental studies
- Progressive site reclamation wherever practical

**c. Decommissioning and Closure Phase**

- Development and implementation of environmental protection and monitoring plan(s) for closure
- Ongoing engagement and consultation with stakeholders and Indigenous Nations
- Remove mine equipment and allow underground mine and open pit to flood
- Seal opening to underground to ensure long term site safety
- Removal of reagents and chemical for proper disposal
- Potential establishment of on-site demolition landfill for inert waste, and/or contracts for demolition waste removal
- Demolish facilities as no longer needed with waste accordance with all regulatory requirements
- Investigate and remediate ground with spillage if any, such as near liquid fuel storage areas
- Remove power infrastructure when no longer needed
- Break concrete foundations down to grade or near grade
- Break up concrete, puncture liners, scarify compacted grounds etc. to establish free drainage
- Regrade as needed for long term stability and establish final surface drainage
- Place a growth material over affected areas as needed to ensure long term vegetation success
- Environmental monitoring and reporting, including work by Indigenous monitors as applicable
- Revocation of approvals to operate when no longer required
- If appropriate, connect the flooded open pit to the Misema River system once the flooded pit lake quality meets regulatory requirements
- Return of reclamation financial assurance





LEGEND	
	Open Pit
	Processing Plant Area
	Tailings Storage Facility
	Ore Stockpile
	Waste Rock Storage Facility
	Overburden Stockpile
	Explosives Magazine
	Dyke
	Pond
	Diversion Channel
	Portal Ramp
	Headframe Shaft
	Fresh Water Pump Station
	Potential Glacio-fluvial Deposit
	115 kV Transmission Line (preliminary route)
	Security Fence
	Effluent Pipeline
	Final Effluent Discharge
	Existing Road
	Advanced Exploration Road
	Proposed Road
	Potential Water Crossings (Culverts or Bridges)
	Existing Water Crossings
	Advanced Exploration Overburden Stockpile
	Advanced Exploration Waste Rock Stockpile
	44 kV Existing Powerline

**NOTES:**

- Site plan layout shown was provided by Agnico Eagle, "005 Site Preparation 210 General Arrangement Plan Upper Beaver Site Layout (Production)".
- Waterbodies and watercourse extracted from LIO, NDMNRF and modified to match site plan layout provided by Agnico Eagle; to be field confirmed.
- Aerial imagery extracted from Google Earth Pro, 2019.

Datum: NAD83  
Projection: UTM Zone 17N

**AGNICO EAGLE**  
UPPER BEAVER PROJECT

**wood.**

---

**UPPER BEAVER PROJECT**

---

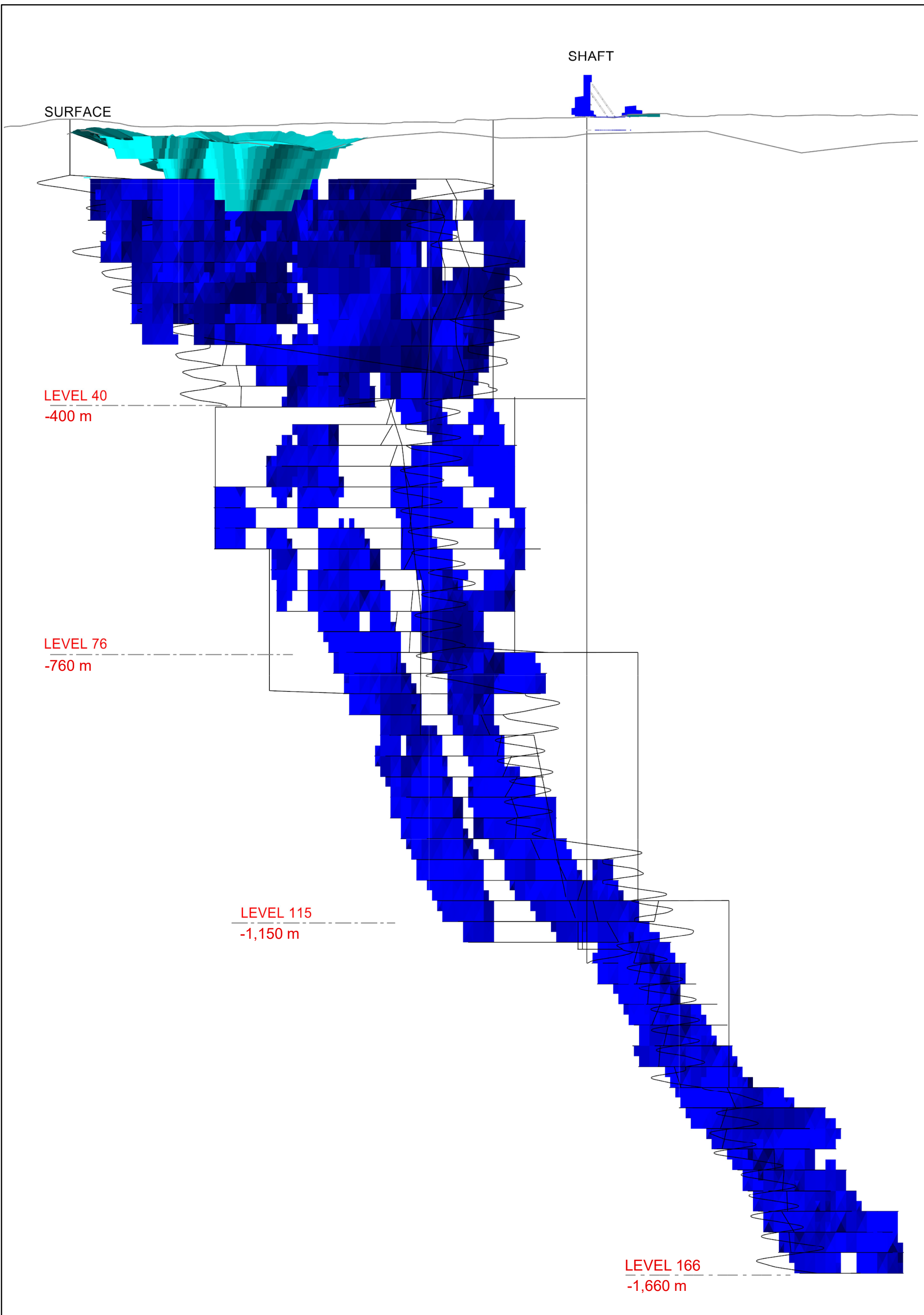
**Preliminary Site Plan**

---

PROJECT N°: OMEMA2008	FIGURE: B.1
SCALE: 1:13,500	DATE: August 2021

P:\2020\Projects\OMEMA2008Z\_Agnico\_Upper\_Beaver\IA\11\_GIS\Proj\_Description\MXD\_Maps\Site\_Plan\_12.mxd

P:\2020\Projects\OMEMA2008Z\_Agnico\_Upper\_Beaver\IA\11\_GIS\Proj\_Description\MXD\_Maps\Mine\_Plan\_5.mxd



**LEGEND**

- Open Pit
- Mineralized Area

NOTES:  
- Mine plan layout shown was provided by Agnico Eagle

Datum: NAD83  
Projection: UTM Zone 17N



**UPPER BEAVER PROJECT**

**Preliminary Mine Plan  
Longitudinal View**

PROJECT N°: OMEMA2008

FIGURE: B.2

SCALE: NTS

DATE: August 2021

591800

591900

592000

592100

5335600

5335500

5335400

5335300

5335200



P:\2020\Projects\OMEMA2008Z\_Agnico\_Upper\_Beaver\IA111\_GIS\Proj\_Description\MXD\_Maps\Historic\_Mine\_Remnants\_5.mxd

**LEGEND**

● Historical Mine Hazards

▬ Fence

**NOTES:**

- 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.



**UPPER BEAVER PROJECT**

**Historical Mine Remnants**

Datum: NAD83  
Projection: UTM Zone 17N



PROJECT N<sup>o</sup>: OMEMA2008

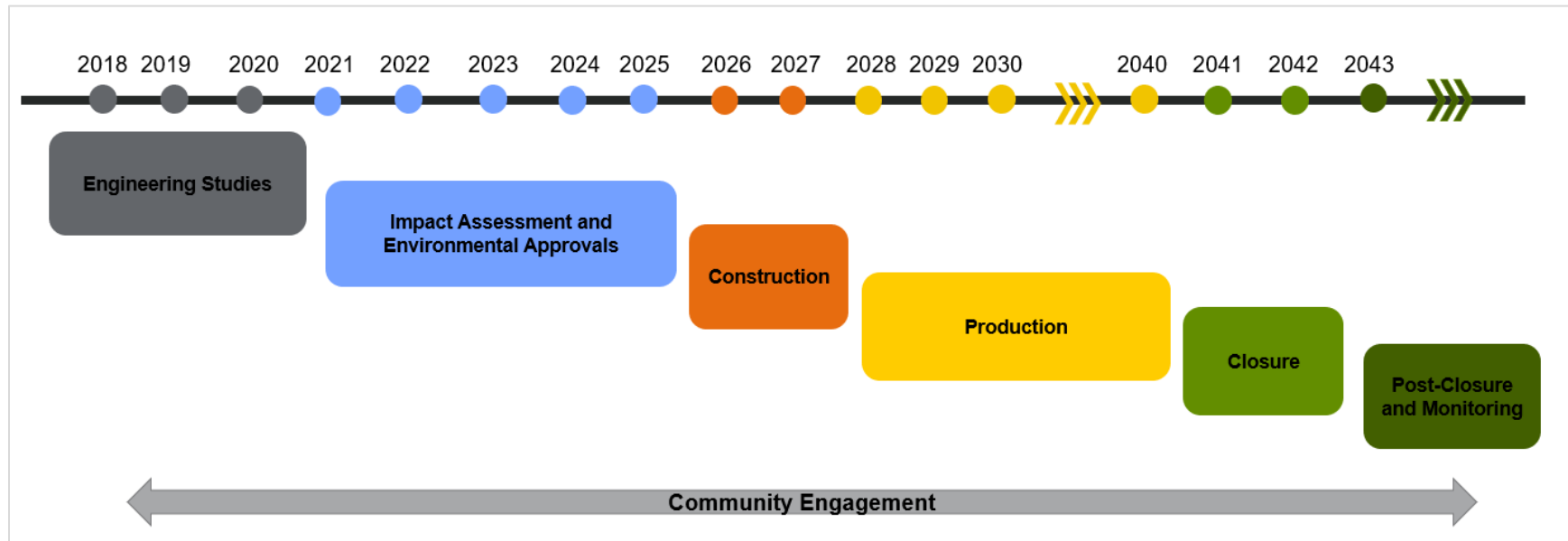
FIGURE: B.3

SCALE: 1:2,200

DATE: August 2021



Figure B.4: Preliminary Project Schedule



## **C. LOCATION INFORMATION AND CONTEXT**

### **C.1 Geographic Coordinates**

The Upper Beaver Gold project is located in the Kirkland Lake – Larder Lake Mining District which has a long history of exploration and mining dating back over a century. The project site is located approximately 5 km northeast of Dobie, Ontario, in the geographic townships of Gauthier and McVittie. The nearest larger communities are the town of Larder Lake and the town Kirkland Lake, located about 8 km to the southeast and 19 km to the southwest, respectively (see Figure C.1). All distances provided in this document are cross-country distances.

The site is accessed by means of Dobie Road and Beaverhouse Road, which are connected to the Trans-Canada Highway (Highway 66).

The centroid of the proposed open pit at York Lake is located at coordinates:

- Universal Transverse Mercator (UTM) 5335489N, 591784E, (NAD 83 Zone 17N);
- Latitude / longitude 79° 45' 56.189" W, 48° 9' 57.663" N.

### **C.2 Site Maps**

The preliminary site layout shown in Figure B.1 proposes to place the required mine related facilities in close proximity to the open pit to the extent practical, on lands to which Agnico Eagle has control, or expects to have control. The preliminary site plan will be refined further as a result of ongoing engineering studies and engagement activities. This plan suggests areas of proposed development, rather than actual design features.

Additional mapping provided in this Initial Project Description includes:

- Project location (Figure A.1);
- Location of local communities and First Nation Reserves / communities (Figures A.2 and C.1);
- Local infrastructure (Figure C.1);
- Land tenure and nearby cottages (Figure C.2);
- Watershed, watercourses and waterbodies (Figures C.3 and C.4).

### **C.3 Description of Lands**

The Upper Beaver Gold project property (as of February 1, 2021) comprises a portfolio of patented mining claims with surface and mining rights, mineral leases with surface and mining rights, and unpatented mining claims with mining rights only (Figure C.2). The Upper Beaver Gold project facilities are planned to be placed on patent mining lands having both mineral and surface rights.

### **C.4 Proximity to Residences and Communities**

The Upper Beaver Mine property is located in an area of low population density. The nearest seasonal residences are located on, or close to, Beaverhouse Lake where there are approximately 19 cottages (see Figure C.2). Agnico Eagle intends to ensure that mining activities do not noticeably change Beaverhouse Lake water levels.





The closest community is Dobie, Ontario located approximately 5 km to the southwest of the Upper Beaver Gold project site and Beaverhouse First Nation settlement is located approximately 5 km to the north (see Figure C.1). The town of Kirkland Lake is located 19 km to the west and the town of Larder Lake is located 8.5 km southeast of the proposed mine site in Ontario (Figure C.1). It is expected that workers may live in these communities and other communities such as Englehart, Earleton and Matachewan, Ontario, and Rouyn-Noranda, Québec. These communities are located approximately one-hour from site. These communities could therefore be impacted by the Upper Beaver Gold project. None of these communities are anticipated to receive off-site natural or biological effects.

Agnico Eagle is in ongoing discussions with local Indigenous Nations to determine historic and current, land and resource uses. Based on current knowledge, including documentation publicly available, Agnico Eagle understands that the Upper Beaver Gold project property is located on lands that may have been used previously for traditional purposes by the members of the BHFN, MFN, WFN, TFN and MNO Region 3.

The Upper Beaver Mine property is located near the boundaries of the Treaty 9, 1905, Robinson – Huron Treaty, 1850, and James Bay and Northern Québec Agreement, 1977 lands. The closest Indigenous Nation to the project site is BHFN which has a settlement on the Misema River approximately 5 km north of the project site. The Nation was not included in Treaty #9 and does not have Reserve lands. Regional First Nation communities are shown on Figure C.1. The nearest Reserve lands are associated with the WFN, located approximately 44 km north of the project site (Figure A.2).

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 site (Table C.1). Agnico Eagle will continue to engage with Indigenous Nations to determine any assertions and whether they have assertions related to the Upper Beaver Gold project

The *First Nations Land Management Act* enables Indigenous Nations to develop their own laws with respect to land use, the environment and natural resources to maximize cultural and economic development opportunities with their new land management authorities. Under the *First Nations Land Management Act*, land administration is transferred to Indigenous Nations once their land codes come into effect. Agnico Eagle is not aware of any land codes currently in progress for potentially affected Indigenous Nations. Through continuing engagement activities with Indigenous Nations, Agnico Eagle will determine whether the Upper Beaver Gold project will affect any Indigenous land codes and will support the framework set out in the land code, if applicable.

Agnico Eagle will engage and work with Indigenous Nations to determine whether there are other lands set aside for the use and benefit of the Indigenous Nations (i.e., for traditional purposes or commercial activities) that could be affected by the Upper Beaver Gold project. Agnico Eagle understands that some Indigenous Nations are undertaking Community Land Use Plans and Indigenous Knowledge studies, and will work with the Indigenous Nations to ensure land use areas are understood and considered during the Impact Assessment.

Agnico Eagle will continue to engage with Indigenous Nations to determine any other assertions and whether they have assertions related to the Upper Beaver Gold project.

## **C.5 Proximity to Federal Lands**

There are no federal lands near the proposed project development area or in the local area surrounding the Upper Beaver Gold project property. The closest federal lands are First Nation Reserve lands located more than 40 km away: Abitibi Wahgoshig Reserve 70 – 44 km; TFN Reserve - 61 km; and Matachewan Reserve 72 – 62 km.

The Upper Beaver Gold project site is located inland, and there are no related marine or port aspects.

## **C.6 Physical and Biological Environmental Setting**

Agnico Eagle and its predecessors have been conducting environmental investigations on the Upper Beaver Mine site since 2010. The main periods of investigations were during 2011 / 2012 and from 2018 to present. The area of influence of the project on the physical and natural environment is expected to be primarily limited to the project footprint and nearby area; however a much larger area has been investigated including through the collection of baseline information prior to development, to ensure there is sufficient background information for future comparison.

In collaboration with Indigenous Nations, Agnico Eagle will incorporate Indigenous Knowledge to inform the decision-making process in the Impact Statement including baseline conditions (i.e., physical and biological existing conditions) and mitigation measures. Agnico Eagle will ensure Indigenous Knowledge is incorporated in the Impact Statement appropriately and will validate how Indigenous Knowledge was interpreted and used in the Impact Statement.

### **C.6.1 Climate, Air Quality, Noise and Light**

The nearest Environment and Climate Change Canada climate station for which long term, current records are available, is located at Kirkland Lake, Ontario (Kirkland Lake CS). This station is located approximately 18 km west of the site. Mean monthly temperatures range from a low of -14.9°C in January to a high of 18.3°C in July. The mean annual precipitation for Kirkland Lake is 939 mm July through October is typically the wettest period.

The Upper Beaver Gold project site is located in a remote part of northeastern Ontario. There are no significant nearby anthropogenic sources of air emissions or noise. There are no continuous significant emissions currently from the site, although there may be periodic emissions associated with exploration and advanced exploration (once approved). Baseline air quality will also be influenced by long range transport of air emissions from the south and also by natural sources, such as volatile organic emissions from vegetation or natural fires.

Air quality data (total dustfall) was measured at the Upper Beaver Gold project site monthly during 2012 with data prior to September representing background conditions. Average dustfall concentrations were: 1.23 g/m<sup>2</sup>/30 days (soluble), 0.88 g/m<sup>2</sup>/30 days (insoluble) with a maximum recorded of 6.54 g/m<sup>2</sup>/30 days. Data for 2012 is also available for total suspended particulate, metals, sulphur dioxide (SO<sub>2</sub>) and nitrogen dioxide (NO<sub>2</sub>) at another nearby exploration site where there were no recorded exceedance of the Ontario Ambient Air Quality Criteria for TSP or metals, and SO<sub>2</sub> and NO<sub>2</sub> concentrations were reported as low (less than 0.8 parts per billion).



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 at the site and at five points of reception during four programs in 2012 and 2013. Noise data were collected from seven sites using Quest SoundPro sound level meter. Minimum recorded background sound levels at the more remote locations were in the range of 23.0 to 46.0 dBA, with the lower levels generally recorded at night. The existing wilderness areas surrounding the project site may be considered as Class 3 (a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic).

Ambient light at the site at night is currently primarily from natural sources (moon). There are no local man-made sources of existing light although there will be light given off by the Upper Beaver advanced exploration site when approved and developed.

### **C.6.2 Physiography and Geology**

The project site is located at an elevation of about 290 to 310 metres above sea level on a plateau above local waterbodies / watercourses. The overall landscape is glaciated bedrock terrain, with an undulating overall topography with occasional flat areas.

The Upper Beaver Gold project site is located within the south-central portion of the Abitibi greenstone belt. The site 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.

Geochemistry investigations have been completed periodically during exploration programs to date for potential ore, mine rock and tailings. The most recent and most extensive study in 2018 consisted of 93 potential mine rock and 15 potential ore samples, which were subject to acid base account and metal analyses. Shake flask extraction was completed on a subset of these samples, and four humidity cells were initiated representing two major lithologies. About 85 to 87% of the mine rock / ore samples were identified as non-potentially acid generating based on a neutralization potential ratio of 2:1. Reported results indicated there is generally excess neutralization potential is available to buffer any acid generated by sulphide oxidation, and further that lag times to the onset of acid rock drainage in potentially acid generating samples will be relatively long, potentially on the order of decades for some samples. The risk of acid rock drainage development from mine rock was considered low with appropriate management (Lorax 2019).

### **C.6.3 Surface Water and Groundwater**

The project site is located immediately adjacent to three small lakes which are inline with the Misema River: Beaverhouse Lake, Ava Lake and York Lake (Figures B.1 and C.4). York Lake contains residual tailings from historic mining operations (Figure B.3). The Misema River at Beaverhouse Lake has a drainage area of approximately 254 km<sup>2</sup>. Victoria Creek is located due west of the proposed development area and there are a number of minor unnamed tributaries that are either in close proximity or intersect the project site. Victoria Creek has a watershed of 142 km<sup>2</sup> and flows into the Misema River. The Misema River flows southward (Figure C.3), eventually into the Blanche River, which drains into Lake Timiskaming, and further south to the Ottawa River and St. Lawrence River. At Beaverhouse Lake, the mean annual flow of the Misema River has been estimated as 91.5 million m<sup>3</sup> per year (2.9 m<sup>3</sup>/second)



Ongoing surface water sampling at and near the site indicate that baseline water quality is consistent with a mineralized area. Water quality results were generally below the Ontario Provincial Water Quality Objectives (PWQO) for protection of aquatic life and/or Interim PWQO, with the exception of regularly elevated iron concentrations and occasionally other metals.

Both shallow and deep groundwater wells have been installed on the Upper Beaver Gold project site previously. Several hydrogeological studies were completed between 2011 and 2018. Groundwater flow from the main site area generally mimics the local topography, and flows southward and toward the local watercourses / waterbodies downslope based information available to date. Testing on five monitoring wells screened in the shallow bedrock recorded a range in hydraulic conductivity of  $1.7 \times 10^{-9}$  to  $5.9 \times 10^{-7}$  metres per second (m/s) with a geometric mean of  $8.5 \times 10^{-8}$  m/s. The specific yield of the shallow bedrock is expected to be less than 3% (SRK 2019). Deep bedrock hydraulic conductivity testing conducted in exploration holes in 2013 and 2016 at 22 drill holes ranging in depth from 360 m to 1,300 m indicated a range in hydraulic conductivities of  $9.7 \times 10^{-10}$  m/s to  $1.5 \times 10^{-8}$  m/s and a geometric mean of  $6.3 \times 10^{-9}$  m/s (SRK 2017). The specific yield of the deep fractured bedrock is expected to be less than 1% (SRK 2019).

Although there are no applicable regulatory criteria available for direct comparison for baseline data, the quality of the groundwater samples collected to date meets the Ontario Regulation 153-04, Generic Standard for non-potable groundwater condition (SEI 2020).

#### **C.6.4 Terrestrial Environment**

The site and lands immediately around the property are representative of Boreal Forest, although some of the area shows anthropogenic influence from rotational forestry, and recreational and periodic mine exploration / mining activities. Harvested and regenerating lands are present on the site. Studies completed in 2011 indicate that the forest units are dominated by Black Spruce, Poplar, Tamarack and Balsam Fir. The following generalized ecosites were present in the site area:

- Spruce-Fir Conifer Forest;
- Black Spruce Conifer Forest;
- Aspen-Birch Hardwood Forest;
- Open Water.

The majority of waterbodies / watercourses have associated wetlands (swamp and marsh ecosites). None of the vegetation communities identified local to the site to date are considered provincially rare. No Provincially Significant Wetlands or provincially threatened or endangered plant species have been identified nearby (Azimuth 2013).

Wildlife nursery area (waterfowl brood rearing habitat), late winter Moose habitat, Moose aquatic feeding area and Moose calving site were identified locally. Wildlife species previously observed as present on the site or during studies locally include:

- Moose;
- Beaver;
- Northern River Otter;
- Black Bear;
- Grey Wolf;



- Skunk;
- Raccoon;
- Red Fox;
- Eastern Chipmunk;
- Red Squirrel;
- Snowshoe Hare;
- Muskrat;
- Big Brown / Silver-haired Bat;
- Little Brown Myotis (a Species at Risk; see Section C.6.6).

Birds identified during previous counts are typical of northern Ontario. Over 100 different bird species were observed, or identified as probably or possibly present during breeding bird surveys, marsh monitoring or incidental identifications during 2011. The species identified included: Duck, Flycatcher, Grouse, Jay, Osprey, Sparrow, Swallow, Vireo, Warbler and Woodpecker. Species at Risk are discussed in Section C.6.6.

Amphibians and reptiles identified through previous investigations in the area include:

- Green Frog;
- Leopard Frog;
- Spring Peeper;
- Wood Frog;
- American Toad;
- Painted Turtle;
- Common Gartersnake.

Agnico Eagle understands that there are culturally important species to Indigenous Nations. As such, Agnico Eagle is working with Indigenous Nations to identify these important species and will ensure they are carried through the Impact Assessment, as applicable. These will be identified through engagement activities, country foods assessment and Indigenous Knowledge Studies that Agnico Eagle is currently engaging with Indigenous Nations.

### **C.6.5 Aquatic Environment**

Aquatic baseline studies were completed during 2011 and 2018 on the Upper Beaver Gold project site and nearby, including of the following waterbodies / watercourses:

- Misema River;
- Victoria Creek;
- Beaverhouse Lake;
- Ava Lake;
- York Lake;
- Various unnamed tributaries;
- Grassy Lake further downstream.

The studies included fish habitat and community assessment, fish collection for fish tissue analyses, and benthic invertebrate and sediment analyses.

Fish communities within the region have been identified as generally diverse with cool water game fish species dominating larger lakes and river systems, and a variety of commonly occurring small bodied species being found in abundance within small creeks and beaver ponds. Fish communities observed in sampled watercourses reflected small-bodied forage fish, and predominantly: Pearl Dace, Finescale Dace, Northern Redbelly Dace, Longnose Dace, Fathead Minnow, Brassy Minnow, Brook Stickleback, Creek Chub, Common Shiner, Golden Shiner, Mottled Sculpin and Logperch. Local lakes also contained larger bodied fish including coarse and game fish species such as: Northern Pike, Walleye, White Sucker, Yellow Perch, Smallmouth Bass, and Brown Bullhead (SEI 2013). White Sucker spawning habitat and potential Walleye spawning habitat were found in the Misema River system.

### **C.6.6 Species at Risk**

Only one Species at Risk have been viewed or identified as present on the Upper Beaver Gold project site in proposed development areas to date. A Little Brown Myotis was potentially detected in 2018 in one station. A more extensive survey will be done on site to confirm this finding. Five Species at Risk were identified as present nearby, but off site, during previous studies:

- Little Brown Myotis;
- Whip-poor-will;
- Canada Warbler;
- Common Nighthawk;
- Rusty Blackbird.

#### **Little Brown Myotis**

Little Brown Myotis is designated as an endangered Species at Risk under the federal (*Species at Risk Act*; SARA) and provincial (*Endangered Species Act*; ESA) legislation. The species roost in small spaces or crevice, such as loose bark, hollow trees, rock faces and human structures. The species is under threat because of the presence of white-nose syndrome, a recent fungal infection. During the spring and summer months, the Little Brown Myotis is typically a tree cavity roosting species, although they will use rock faces and human structures when available. During 2018 field investigations, Little Brown Myotis were detected west of the project site, but no bat hibernacula have been identified to date (SEI 2020)

#### **Whip-poor-will**

Whip-poor-will is a bird Species at Risk, designated federally (SARA) and provincially (ESA) as Threatened. Whip-poor-will tend to nest in semi-open habitats such as open woodlands, woodlands associated with rock outcrop areas, and along forest edges. Individuals of this species have been noted at several locations at and adjacent to the site. A single calling male was identified south of Beaverhouse Lake during the 2011 study (Azimuth 2011).

#### **Canada Warbler**

The Canada Warbler is designated as Special Concern under ESA and Threatened under SARA. This species is found in a variety of upland and wetland forest types, but most abundant in wet, mixed deciduous-coniferous shrub layer.



### **Common Nighthawk**

Common Nighthawk is currently designated Threatened (SARA) and Special Concern (ESA). This species nests in a wide range of open, vegetation-free habitats, including: dunes, beaches, recently harvested forests, burnt-over areas, logged areas, rocky outcrops, rocky barrens, grasslands, pastures, peat bogs, marshes, lakeshores, and river banks and also inhabits mixed and coniferous forests.

### **Rusty Blackbird**

Rusty Blackbirds are currently designated federally and provincially as Special Concern. This species prefers open wetland habitats, with abundant standing snags for nesting.

## **C.7 Social, Economic and Health Context**

### **C.7.1 Site History**

Prior to the arrival of Europeans, Indigenous Peoples were active across northeastern Ontario. There has been Indigenous use of the lands locally, and based on the spatial extent and quantities of the lithic artefacts recovered during archaeological investigations to date, this includes a portage, where short-term camping or brief stopovers occurred during the pre-contact past (Woodland Heritage 2021). Indigenous Knowledge will be conducted by Indigenous Nations to provide further information regarding historic and current land uses.

Gold was discovered west of Beaverhouse Lake in 1912. Since that time there have been ongoing but periodic times of exploration and underground mine / development, as well as a number of ownership changes as is typical of the northeastern Ontario historic mining areas. The primary periods of related activities on the Upper Beaver Gold project site and immediate environs have been:

- 1912 to 1935: periodic production mining from underground;
- 1965 to 1972: production mining from underground;
- 1974, 1989, 1990, 1991, 1995, 2000: exploration drilling;
- 2005 to 2014: preliminary exploration (geophysics, mapping, drilling, etc.) conducted each year;
- 2012 to 2013: attempt to start an advanced exploration program (previous owner);
- 2018 to present: preliminary exploration, engineering and environmental studies.

There is existing historical mine infrastructure, tailings and mine rock on the surface, as well as shafts, raises and adits to the underground workings (see Section B.3.2).

A previous study identified cultural heritage landscape and built heritage resources at the Upper Beaver Gold project site and local vicinity related to the site's mining heritage. These have been investigated by a licensed archaeologist as appropriate. Two sites (DbGw-24 and DbGw-26) have been identified as having moderate cultural heritage value or interest, and would require protection and avoidance of development impacts as proposed, or excavation and documentation (not currently proposed).



### **C.7.2 Social Context**

Northeastern Ontario in which the Upper Beaver Gold project site is located, covers an area of about 400,000 km<sup>2</sup> with a total population of 565,000 and density of 1.4 people per km<sup>2</sup>. Of that population, 30.2% live in a rural area, and 50% in small and medium-sized population centres, compared to the Ontario overall average of with 69.3% of the population living in a large urban centre and 14.1% in a rural area.

Overall, it has been identified that people in northeastern Ontario:

- Have shorter expected lifespans than the average in Ontario;
- Are more likely to smoke (26%), which has been linked to illnesses and early death;
- Are more likely to report having multiple chronic conditions;
- Are far more likely to die prematurely (before age 75) from suicide, heart disease or other causes;
- Are much less likely to report being able to see a primary care provider, such as a family doctor or nurse practitioner the same day or next day (Health Quality Ontario 2021).

The local lands support recreational activities by locals and tourists, including fishing, camping, trapping and hunting. There is a rudimentary, public boat launch located at the west end of Beaverhouse Lake. The area is also used extensively for the sustainable harvesting of timber. There is no active agricultural use in the project area. The majority of the land within and surrounding the site is classified as having little to no capacity for arable agriculture or permanent pasture.

The Upper Beaver Gold project site is located in geographic townships of Gauthier and McVittie. Numerous old exploration drilling and logging roads as well as recently constructed logging roads, provide access throughout the site and to the Trans Canada Highway 66. The project is located within the boundaries of the Township of Gauthier Official Plan and Township of Larder Lake Official Plan. Agnico Eagle is in discussions to determine whether rezoning of the lands is required.

There are a number of seasonal cottages along the Misema River / inline lake system close to the project site. The nearest municipal community is Dobie which is located within the township of Gauthier (Timiskaming District). Dobie is located north of the Trans Canada Highway 66 and had a population of 138 in 2016. This indicates a 12.2% population change since 2011 when the population was 123. According to the 2016 Census, the median age in the township of Gauthier was 50 with 75% of the population between the ages of 15 and 64 and 10.7% of the population over age 65. The total population was almost evenly split between males and females with 50% identifying as male and 50% identifying as female. Of those between the ages of 15 and 64, 78.6% identified as male and 78.6% as female.

Although a historic mining community, Dobie is effectively a residential community and offers limited services. The township is traversed in an east-west direction by the Ontario Northland Railway line that runs between Swastika (Ontario) and Rouyn-Noranda (Québec).

The nearest large municipal community, the town of Kirkland Lake, lies approximately 19 km to the west of the Upper Beaver Gold project site. Kirkland Lake is a historic gold mining town that had a population of 7,981 in 2016. This indicates a -6.0% population change since 2011 the population was 8,493. A breakdown of the total population by gender is not available from the Census data. Based on the 2016 Census, the median age of the population in the community was 45.8 years with 63.7% of the population between the ages of 15 and 64 and 21.1% of the population over age 65. The total population is almost evenly split





between males and females with 49.5% identifying as male and 50.6% identifying as female. Of those between the ages 15 and 64, 64.9% identified as male and 62.3% as female.

Over the past 35 years, the population has declined by more than one-third from 12,000 in 1986. While mining has been a mainstay of the community, there has been a growth in recreational opportunities. A variety of services are available in the community, including an airport, hospital, schools, college campus, government offices, shops, retirement facilities and homes. The City of Timmins located 79 km to the northwest (122 km by road) is the regional service and distribution centre, offering key services not available in the town of Kirkland Lake.

There are no First Nation Reserve lands proximal to the site (see Figure A.2), although the site is anticipated to be within the traditional territories of several Indigenous Nations:

- BHFN is the closest Indigenous community to the site, having a remote, old settlement on Misema River approximately 5 km north of the site;
- WFN is located approximately 44 km away on the south shores of Lake Abitibi;
- MFN is located approximately 62 km west of the site, west of Kirkland Lake Ontario;
- TFN is located approximately 61 km to the southeast, adjacent to the municipality of Notre-Dame-du-Nord (Figure A.2).

Further background information regarding is provided in Table C.2.

The Crown Land Use Policy Atlas identify the project site within land use code G1854 (Howard-Misema Lake Chain) and G1855 (Great Clay Belt). The land use codes encourage mineral exploration and development with some limitations.

With respect to parks, there are no federal parks nearby. The closest lands managed by Ontario Parks is the Gem Lake Maple Bedrock Park (nature reserve class) located approximately 7 km away from the Upper Beaver Gold project site.

### **C.7.3 Economic Context**

The town of Kirkland Lake is the administrative and economic centre of the north Timiskaming District. The largest proportion of workers in Kirkland Lake are employed in the mining sector. Major regional industries that draw labour, services and supplies from Kirkland Lake include: DelShen Therapeutics, Alamos Gold, Agnico Eagle Gold, McEwan Mining, CXS Exploration Services and Kirkland Lake Manufactured Wood Products.

The regional economy has been traditionally reliant upon mine and forestry industries, although mining has been the primary economic driver with the decline of the forestry industry over the last decade and longer. The closest operating or temporarily suspended mines are:

- Holt Complex, Kirkland Lake Gold Ltd.;
- Macassa Mine, Kirkland Lake Gold Ltd.;
- Young-Davidson Mine, Alamos Gold Inc.

The Timiskaming Forest includes more than 10,000 km<sup>2</sup> of forest land base extending from the Ontario / Québec border west for 166 km, and from Lake Timiskaming north to Lake Abitibi. The Timiskaming Forest



Alliance Inc, a consortium of forest product producers and independent logging operators to manage the Timiskaming Forest on Crown land. They also hold a contract to manage the Timiskaming sustainable forest licence. The Upper Beaver Gold project site was mainly cut by forestry companies in the last 10 years, and there is currently active forestry in the local area.

Hunting and fishing activities are management by the Ministry of Natural Resources and Forestry. The Upper Beaver Gold project site is located within Wildlife Management Unit 28 which covers an area of more than 10,000 km<sup>2</sup>. The unit is constrained by the Québec border to the east, the Montreal River to the south, the Black River, Watabeag River, Englehart River and Montreal River to the west, and Lake Abitibi and the Abitibi River to the north. The site is also located within the Cervid Ecological Zone C<sub>2</sub>. Moose habitat is managed within the zone with a goal of maintaining a moderate to high density moose population. White-tailed deer are managed to maintain a low density population. The site also falls within Fish Management Zone 8.

The 2016 Census data indicate that more than half of the populations of nearby municipalities and Indigenous Nations participated in the labour force in 2016. Table C.3 presents labour force characteristics of the nearby municipalities and Indigenous Nations to the Upper Beaver Gold project, outlining participation rates and industries of the workforce.

Through engagement activities and primary research, Agnico Eagle will engage and work with Indigenous Nations to gather information on economic activities and to understand potential impacts on those activities. The economic context of Indigenous Nations will be assessed in the Impact Statement.

#### **C.7.4 Health Context**

The Timiskaming Health Unit is located in a more southern portion of the northeastern Ontario, and accordingly the accessibility to health service is improved over the Far North area. Public health services for overall health, are complemented by clinical services, such found at the Kirkland and District Hospital.

The Kirkland and District Hospital is located in Kirkland Lake, west of the Upper Beaver Gold project site which has 62 beds. Permanent medical staff including general practitioners and family practice out the hospital, supported by a number of visiting specialists. The hospital is in partnership with the Sudbury Health Science North Hospital for extended care services.

Publicly available information was not available regarding community safety and well-being, social determinants of health or community health plans for the nearby municipalities and Indigenous Nations. Agnico Eagle expects to complete additional primary research to understand community-specific plans that support improving well-being. This may include research with nearby municipalities, Indigenous Nations, healthcare providers and diverse population groups.

Through engagement activities and primary research, Agnico Eagle will engage and work with Indigenous Nations to gather information on health of Indigenous Nations including social determinants of health and community well-being and how the Indigenous Nations define these aspects. The Impact Statement will include a health impact assessment that examines the health and well-being of Indigenous Nations and will use a gender-based framework to assess potential impacts.



**Table C.1: Land Claims and Assertions of Indigenous Nations**

<b>Indigenous Nation</b>	<b>Claim and Assertions</b>
Beaverhouse First Nation (BHFN)	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 (MFN)	In 2009, MFN filed a Treaty Land Entitlement claim indicating that the Nation did not receive all the land it was entitled to under Treaty #9 (1906). It is understood from the federal government that this claim has been settled.
Wahgoshig First Nation (WFN)	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.
Timiskaming First Nation (TFN)	In January 2013, the Algonquin Nation Secretariat has made assertions of their rights and title over an area of o 34,000 square kilometres of an area that extends into Ontario, in close vicinity to the project.
Métis Nation of Ontario – Region 3 (MNO)	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)  
Métis Nation of Ontario (2021)



**Table C.2: Additional Information regarding Indigenous Nations**

Indigenous Nation	Description
Beaverhouse First Nation (BHFN)	BHFN is a member of the Wabun Tribal Council. The BHFN does not have land base although it maintains a band office in Kirkland Lake. The First Nation is currently seeking land and band status from the federal government.
Wahgoshig First Nation (WFN)	<p>WFN is an Algonquin First Nation near Abitibi Lake. The WFN in Ontario (formerly known as Abitibi Band of Abitibi Indians) and the Pikogan in Québec signed Treaty No. 9 on June 1, 1906. On June 18, 1986, the Ontario community changed its name from the Abitibi Band of Abitibi Indians to Wahgoshig First Nation (Algonquin Anishinabeg Nation 2016).</p> <p>WFN is a member of the Algonquin Anishinabeg Tribal Council in Québec. WFN is also a member of Nishnawbe Aski Nation.</p> <p>The registered population of WFN as reported to Indigenous and Northern Affairs Canada (INAC 2019a) as of May 2021 is 380, with 38.2% of the population on-reserve and 58.2% off-reserve. However, 2016 Census data indicates a total population of 145, with a 26.1% increase in population size between 2006 and 2016. The median age of the population was 30.8 years. The population has a higher population count of male to females at a total of 80 males and 60 females. Most of the population is within the age group of 20-64 years, with males accounting for 50 persons and females a total 40 within the subset (Statistics Canada 2018a).</p>
Matachewan First Nation (MFN)	<p>MFN is located approximately 30 km southeast of the Town of Matachewan, Ontario and about 60 km west of Kirkland Lake off Highway 66. MFN is a signatory to Treaty No. 9, signed by MFN on June 19, 1906 (Matachewan First Nation 2021).</p> <p>MFN is a member of the Wabun Tribal Council and the Nishnawbe Aski Nation.</p> <p>The registered population of MFN as reported to INAC (2019b) as of May 2021 is 940, with only 5.3% of the population on-reserve and 94.2% off-reserve. However, 2016 Census data indicates a total population of 60, which decreased 20% from 2006 to 2016. The median age of the population in the community was 36.8 years. The population has a higher number of males than females. Most of the population is within the age group of 20-64 years and this group is equally divided between males and females (Statistics Canada 2018b).</p>
Timiskaming First Nation (TFN)	<p>TFN is located at the top of Lake Timiskaming and borders the municipality of Notre-Dame Du Nord. The Nation's traditional territory includes land in Ontario and Québec.</p> <p>TFN is a member of the Algonquin Nation Tribal Council.</p> <p>The registered population of TFN as reported to INAC (2019c) as of May 2021 is 2,391, with 27.2% on-reserve and 72.4% off-reserve. According to the 2016 Census data, the total population was 525. The Census data indicate that there</p>



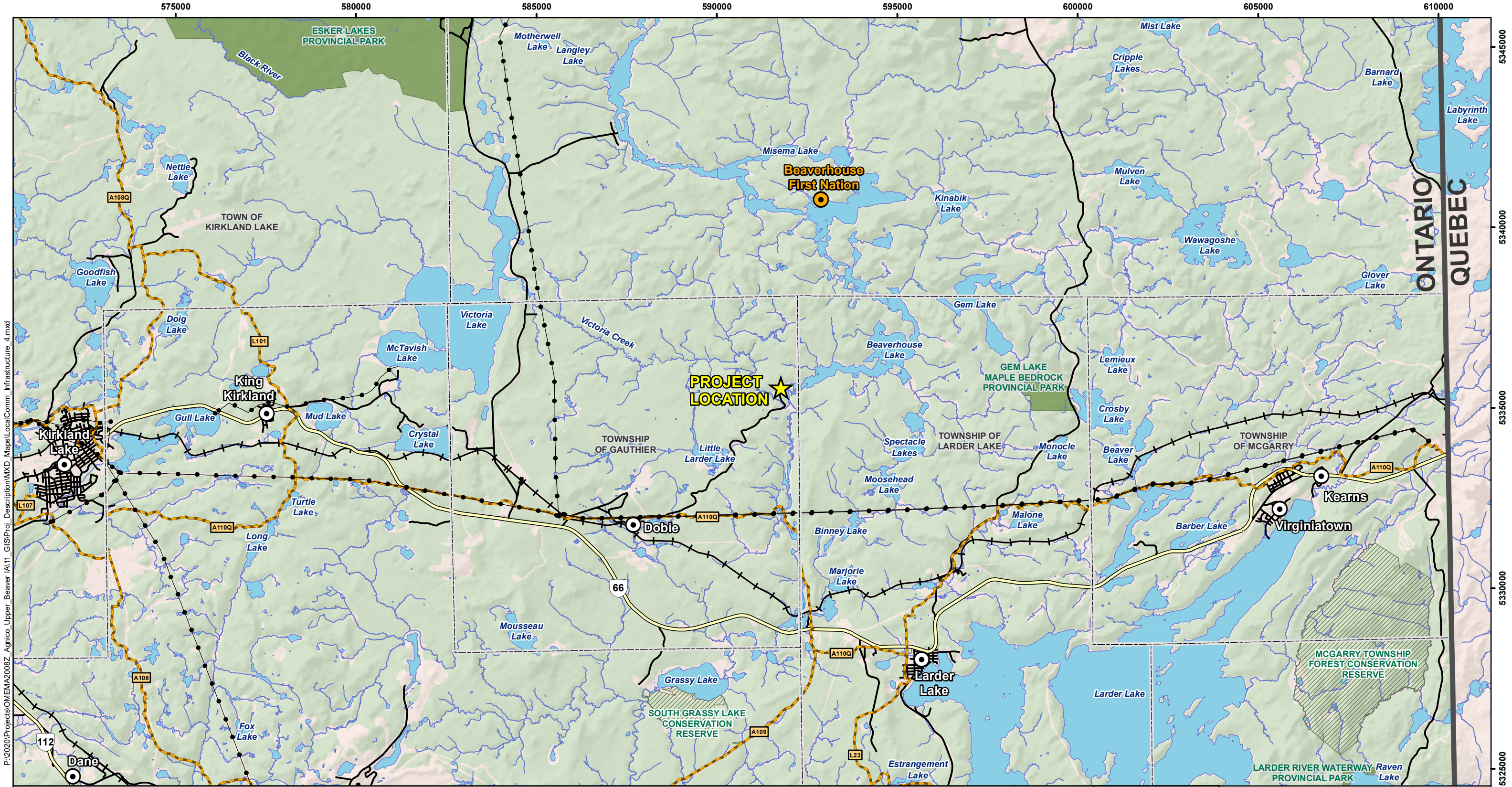
<b>Indigenous Nation</b>	<b>Description</b>
	has been a population growth of 8.3% over 10 years from 2006 to 2016. The median age of the population was 31.9 years. Slightly more than half the population (51.4%) are females, predominantly under the age of 65 years (Statistics Canada 2018c).
Métis Nation of Ontario (MNO) – Region 3	The Upper Beaver Gold project site is also located within Region 3 of the MNO. The MNO has a province-wide governance structure and is a Governing Member of the Métis National Council. The MNO exists to represent and advance the interests of the Métis Peoples of Ontario. The MNO has a Consultation Agreement with the Ontario Government signed on July 31, 2015, that establishes a consultation process with member so the Ontario Métis communities represented by MNO to consult on proposed actions and decisions that may impact asserted or established Indigenous rights (Metis Nation of Ontario 2021).



**Table C.3: Labour Characteristics of Nearby Municipalities and Indigenous Nations**

<b>Municipality / Indigenous Nation</b>	<b>Description</b>
Kirkland Lake	Based on the 2016 Census data, 55.8% of the population aged 15 years and older participated in the labour force, with more males (59.7%) in the labour force than females (52%). Approximately 21% of those in the workforce and 36% of males were in mining, quarrying and oil extraction industry. Of the female workforce, 30% were in the health care and social assistance industry.
Township of Gauthier	Based on the 2016 Census data, 73.1% of the population aged 15 years and older participated in the labour force, with more males (83.3%) in the labour force than females (69.2%). Approximately 26% of those in the workforce were in the mining, quarrying and oil extraction industry, with 40% being males. Of the female workforce, 33% were in the health care and social assistance industry.
Beaverhouse First Nation (BHFN)	Census data for BHFN are not available to present labour force characteristics for the community.
Wahgoshig First Nation (WFN)	Based on the 2016 Census data, 72.7% of the population aged 15 years and older participated in the labour force, with a similar number of males at 69.2% to females at 66.7%. Approximately 13% of those in the workforce are in agriculture, forestry, fishing, and hunting, mining, utilities, construction, administrative and support, waste management, and remediation services, educational services, health care and social assistance, and accommodation and food services.
Matachewan First Nation (MFN)	Based on the 2016 Census data, 88.9% of the population 15 years and over participated in the labour force, with 80% participation from males and 60% from females. Approximately 50% of those in the workforce were in the mining industry. Other employment industries include: construction, public administration and other services.
Timiskaming First Nation (TFN)	Based on the 2016 Census data, 50% of TFN population aged 15 years and older participated in the labour force with more females (53.7%) in the labour force than males (47.6%). Approximately 23% of those in the workforce were in health care and social assistance, 13% were in public administration, while 10% equally were in construction and educational services.
Métis Nation of Ontario (MNO)	Based on the 2016 Census data, 90% of the Métis population of Kirkland Lake participated in the labour force, and 0% of the Métis population of the township of Gauthier participated in the labour force. Approximately 30.3% of Kirkland Lake labour force were in mining, quarrying and oil and gas extraction. Labour force data are not available for the township of Gauthier.





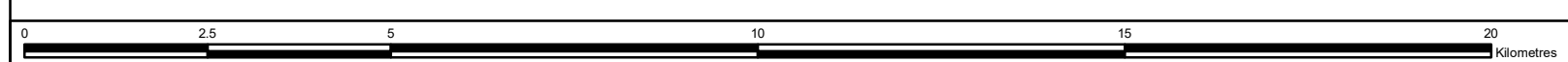
P:\2020\Projects\OMEMA2008Z\_Agnico\_Upper\_Beaver\A111\_GIS\Proj\_Description\MXD\_Maps\LocalComm\_Infrastructure\_4.mxd

**LEGEND**

Project Location	Provincial Border	Snowmobile Trail
Town / Community	Lower Tier Municipal Boundary	Waterbody
First Nation Community	Transmission Line	Watercourse
Conservation Reserve	Railway	
Provincial Park	Highway	
	Local Road	
	Resource / Recreation Road	

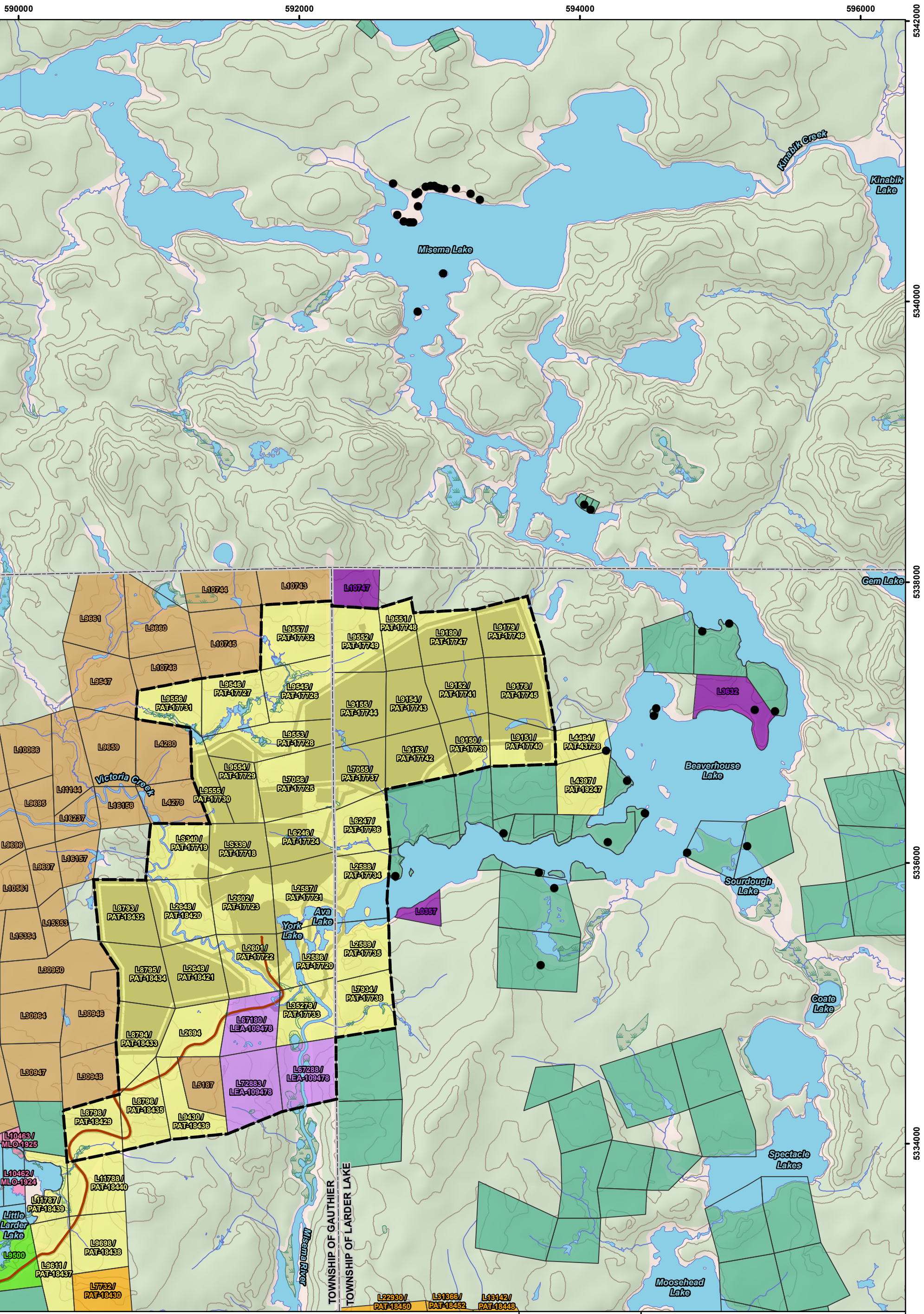
**NOTES:**  
 - Waterbodies and watercourse extracted from LIO, NDMNRF and modified to match site plan layout provided by Agnico Eagle; to be field confirmed.

 UPPER BEAVER PROJECT		
	<b>UPPER BEAVER PROJECT</b>	
<b>Local Communities and Infrastructure</b>		
PROJECT N <sup>o</sup> : OMEMA2008		<b>FIGURE: C.1</b>
SCALE: 1:100,000		DATE: August 2021



Datum: NAD83  
 Projection: UTM Zone 17N





P:\2020\Projects\OMEMA2008Z\_Agnico\_Upper\_Beaver\_IA111\_GIS\Proj\_Description\MXD\_Maps\Land\_Tenure\_9.mxd

**LEGEND**

- Preliminary Project Boundary
- Proposed Mine Feature
- Cottages
- Low-lying Area
- Watercourse
- Waterbody
- Existing Access Road
- Contours (10 m intervals)
- Municipal Boundary
- Other Land Tenure**
- Township of Gauthier Land (Patent)
- Private Individual (Patent)

**Agnico Eagle Mine Ltd. Land Tenure**

- LEA-9 Lease - Mining and Surface Rights
- MLO-9 Licence of Occupation - Mining and Surface Rights
- PAT-9 Patent - Mining and Surface Rights
- PAT-9 Patent - Mining Rights Only
- PAT-9 Patent - Surface Rights Only
- L-9 Claim - Mining and Surface Rights

**NOTES:**

- Site plan layout shown was provided by Agnico Eagle, "005 Site Preparation 210 General Arrangement Plan Upper Beaver Site Layout (Production)".
- Land tenure provided by Agnico Eagle, December 2018/ August 2021.
- Waterbodies, watercourse and wetland extracted from LIO, NDMNRF and modified to match site plan layout provided by Agnico Eagle; to be field confirmed

Datum: NAD83  
Projection: UTM Zone 17N

UPPER BEAVER PROJECT

**UPPER BEAVER PROJECT**

**Land Tenure and Land Use**

PROJECT N°: OMEMA2008

FIGURE: C.2

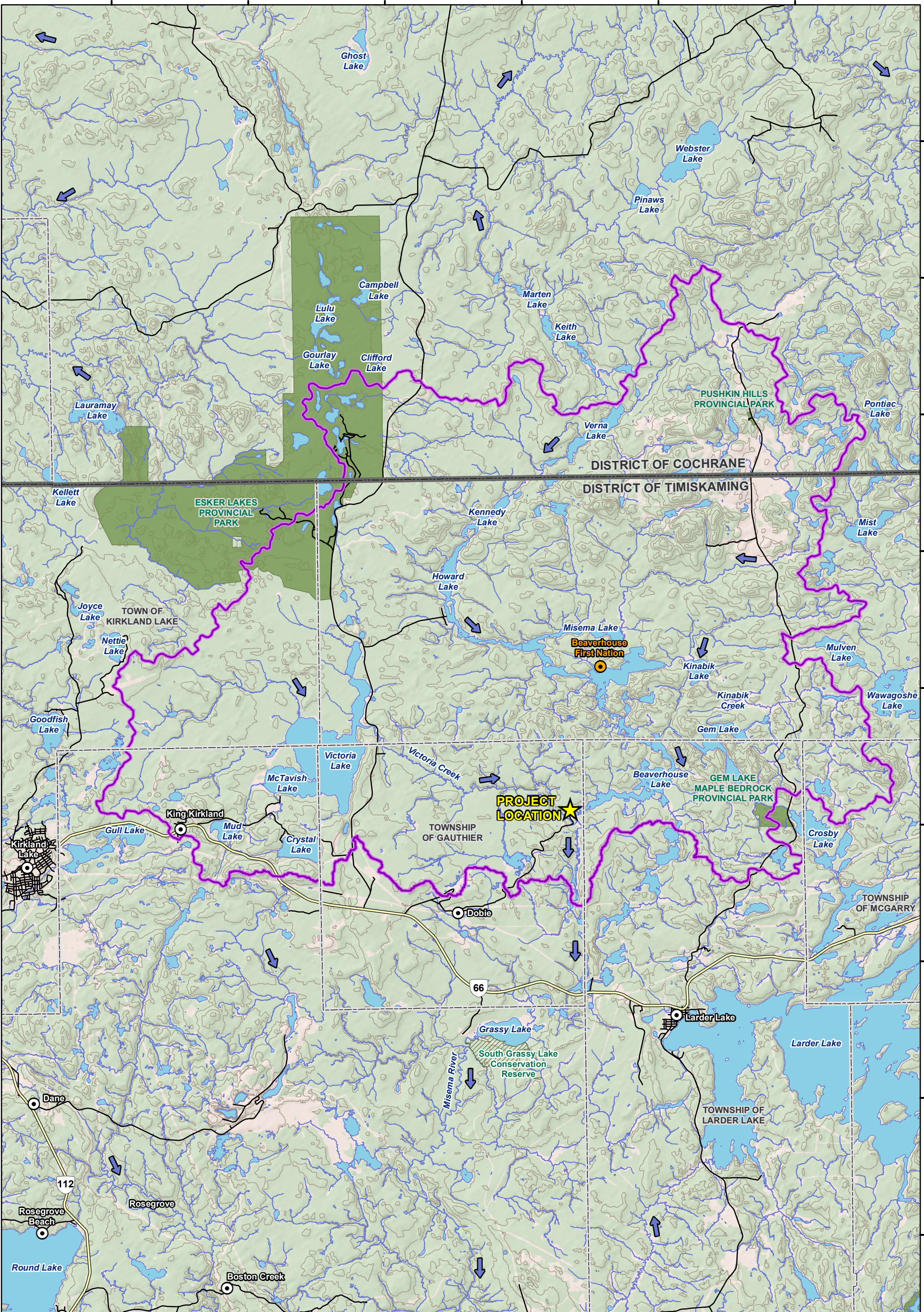
SCALE: 1:25,000

DATE: August 2021



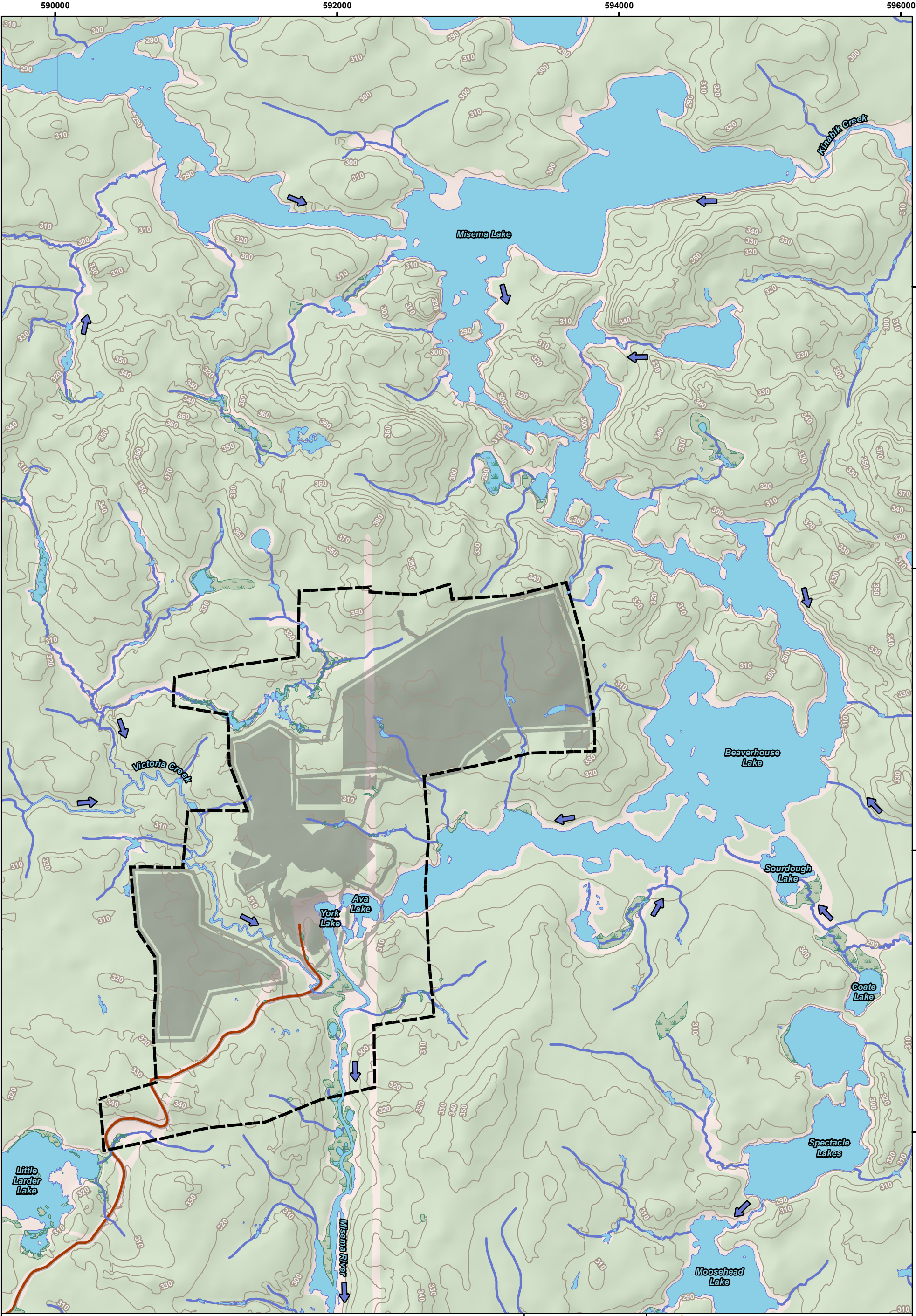


575000 580000 585000 590000 595000 600000



P:\2020\Projects\OMEMA2008Z\_Agnico\_Upper\_Beaver\1A11\_GIS\Proj\_Description\MXD\_Maps\Watershed\_5.mxd

<b>LEGEND</b> <ul style="list-style-type: none"> <li> Project Location</li> <li> Watershed</li> <li> Town / Community</li> <li> First Nation Community</li> <li> Conservation Reserve</li> <li> Provincial Park</li> <li> Upper Tier Municipal Boundary</li> <li> Lower Tier Municipal Boundary</li> <li> Highway</li> <li> Local Road</li> <li> Resource / Recreation Road</li> <li> Contours (20 m intervals)</li> <li> Watercourse</li> <li> Waterbody</li> <li> Flow Direction</li> </ul>		<b>NOTES:</b> - Waterbodies and watercourse extracted from LIO, NDMNRF and modified to match site plan layout provided by Agnico Eagle; to be field confirmed. - Watersheds extracted from LIO, NDMNRF and modified using the Ontario Flow Assessment Tool (OFAT), NDMNRF.	 UPPER BEAVER PROJECT  <b>WOOD</b> WATERSHED BOUNDARY
Datum: NAD83 Projection: UTM Zone 17N		PROJECT N°: OMEMA2008 SCALE: 1:130,000	FIGURE: C.3 DATE: August 2021



P:\2020\Projects\OMEMA2008Z\_Agnico\_Upper\_Beaver\_IA\11\_GIS\Proj\_Description\MXD\_Maps\Topographic\_Map\_9.mxd

**LEGEND**

- Preliminary Project Boundary
- Proposed Mine Feature
- Low-lying Area
- Watercourse
- Waterbody
- Existing Access Road
- Contours (10 m intervals)
- Flow Direction



**NOTES:**

- Site plan layout shown was provided by Agnico Eagle, "005 Site Preparation 210 General Arrangement Plan Upper Beaver Site Layout (Production)".
- Waterbodies, watercourses and wetlands extracted from LIO, NDMNRF and modified to match site plan layout provided by Agnico Eagle; to be field confirmed.

Datum: NAD83  
Projection: UTM Zone 17N



**UPPER BEAVER PROJECT**

**Watercourses and Waterbodies**

PROJECT N°: OMEMA2008

FIGURE: C.4

SCALE: 1:25,000

DATE: August 2021

## **D. FEDERAL, PROVINCIAL, INDIGENOUS AND MUNICIPAL INVOLVEMENT AND EFFECTS**

### **D.1 Federal Funding**

There is no anticipated federal funding for the Upper Beaver Gold project.

### **D.2 Federal Lands Needed**

No federal lands will be used for the purpose of carrying out the Upper Beaver Gold project including Reserve lands.

### **D.3 Federal, Provincial and Municipal Environmental Approvals**

#### **D.3.1 Federal**

In addition to the potential requirement for completion of an Impact Assessment pursuant to the *Impact Assessment Act*, the Upper Beaver Gold project may require federal approvals related to the *Fisheries Act*, *Canada Navigable Waters Act* and *Explosives Act*, pending additional regulatory guidance. Fisheries and Oceans Canada, Environment and Climate Change Canada, Transport Canada and Natural Resources Canada have a broad range of responsibilities, and are the federal departments primarily involved with approvals under the above statutes.

Table D.1 provides a preliminary list of federal environmental approvals that could potentially be required for the Upper Beaver Gold project. Others may arise through consultation with federal agencies.

#### **D.3.2 Provincial**

The Upper Beaver Gold project site is located within Ontario on provincial Crown land. The *Ontario Environmental Assessment Act*, *Mining Act*, *Ontario Water Resources Act*, *Environmental Protection Act*, *Lakes and Rivers Improvement Act*, *Public Lands Act* and the *Ontario Heritage Act* contain associated regulations, guidelines and policies stipulating that relevant aspects of the natural and/or human use environments are to be protected against undue disturbance from industrial and other sources, except as provided through the granting of permits, approvals and authorizations.

There are two primary provincial agencies are expected to be involved with approvals for the Upper Beaver Gold project:

- Ministry of Northern Development, Mines, Natural Resources and Forestry has a responsibility to ensure the orderly development of mineral resources in Ontario, including responsibilities for the disposition of Crown lands for mining, and primary responsibility for mine closure activities and approval for mining-related dykes located on land; as well as, the wise use of Crown resources not otherwise disposed, such as through the *Mining Act*, including natural heritage features;
- Ministry of the Environment, Conservation and Parks grants permits and approvals that address project aspects related to water and air quality (including sound), waste management and Species at Risk.



In addition, Ministry of Heritage, Sport, Tourism and Culture may also be involved with permitting of project components although no permits are expected to be issued. The Ontario Energy Board has responsibility for energy-related approvals, including approval to construct transmission lines, and operates as an adjudicative tribunal, carrying out its regulatory function through oral or written public hearings.

The Upper Beaver Gold project may require completion of one or more provincial environmental assessment processes, depending on the final project design. It is anticipated that an environmental assessment will be required for the disposition of Crown resources (Class Environmental Assessment for Resource Stewardship and Facility Development Projects), including for the diversion of the Misema River around York Lake. There is also the potential that there could be environmental assessment requirement related to the provision of grid power to the site, depending on the voltage required and grid connection location (Class Environmental Assessment for Minor Transmission Facilities). The same body of knowledge is commonly used to meet both federal and provincial process needs in accordance with the existing *Canada-Ontario Agreement on Environmental Assessment Cooperation*.

Table D.2 provides a preliminary listing of the provincial environmental approvals that are expected to be required to construct, operate and close the Upper Beaver Gold project site based on the preliminary project design.

There are no facilities planned in the Québec, and no transboundary negative impacts from the Upper Beaver Gold project are anticipated.

### **D.3.3 Municipal**

The project is located within the boundaries of the Township of Gauthier Official Plan and Township of Larder Lake Official Plan. Agnico Eagle is in discussions to determine if rezoning of the lands is required.



**Table D.1: Preliminary List of Potential Federal Approvals**

Department	Act, Approval and Project-related Activities
Environment and Climate Change Canada	<p><i>Fisheries Act</i>, Schedule 2 Listing (Metal and Diamond Mining Effluent Regulations) [new]:</p> <ul style="list-style-type: none"> <li>- Storage of mineral waste covering minor tributaries that are frequented by fish</li> <li>- An alternative assessment for mineral waste disposal in the prescribed format will be required along with an approved fish habitat compensation plan</li> </ul>
Fisheries and Oceans Canada	<p><i>Fisheries Act</i>, Authorization for Harmful Alteration, Disruption or Destruction of Fish Habitat or Death of Fish by means other than Fishing [new]:</p> <ul style="list-style-type: none"> <li>- Direct impacts to fish habitat including overprinting of waterbodies and construction of structures in waterbodies / watercourses</li> <li>- Indirect impacts to fish habitat including flow reductions</li> <li>- An approved fisheries offset plan will be required</li> </ul>
Natural Resources Canada	<p><i>Explosives Act</i>, Licence for Magazine [new or amendment]:</p> <ul style="list-style-type: none"> <li>- Storage of explosives (magazine)</li> </ul>
Transport Canada	<p><i>Canada Navigable Waters Act</i>: Approval under the Navigation Protection Program [new]:</p> <ul style="list-style-type: none"> <li>- Diversion of unscheduled watercourse to provide for safe mining</li> </ul>



**Table D.2: Preliminary List of Potential Provincial Approvals**

Ministry	Act, Approval and Project-related Activities
Ministry of Northern Development, Mines, Natural Resources and Forestry	<i>Mining Act</i> , Closure Plan [new]: – Progressive reclamation and final closure of the site – Construction of dykes above the high water mark of watercourses if any
	<i>Ontario Environmental Assessment Act</i> , Class Environmental Assessment(s) for Resource Stewardship and Facility Development Projects [new]: – Based on the preliminary project design, the Upper Beaver Gold project is expected to require completion of this Class Environmental Assessment, subject to regulatory confirmation.
	<i>Public Lands Act or Lakes and Rivers Improvement Act</i> , Work Permits [new]: – Construction of facilities on Crown land including below the high water mark of waterbodies / watercourses
	<i>Public Lands Act</i> , Land Use Permit [new]: – Temporary land tenure for facilities off the mining lease if required
	<i>Crown Forest Sustainability Act</i> , Forest Resource Licence (Cutting Permit) [new]: – For cutting of merchantable timber for site development
	<i>Fish and Wildlife Conservation Act</i> , Permit to Collect Fish for Scientific Purpose [new]: – Fish transfer during construction – Fisheries investigations during construction, operation and closure
	<i>Aggregate Resources Act</i> , Aggregate Permit [new]: – If the proposed field investigations are successful in finding an appropriate resource, Agnico Eagle may pursue an aggregate resource permit to provide a source of aggregate to support the mine construction and operation
Ministry of the Environment, Conservation and Parks	<i>Ontario Water Resources Act</i> , Permit to Take Water [new or amendment]: – Dewatering activities in support of construction and longer term mine dewatering – Fresh water supply
	<i>Environmental Protection Act</i> , Environmental Compliance Approval for Industrial and Domestic Sewage Works [new or amendment]: – Mine water, process water and contact water, tailings management and domestic sewage
	<i>Environmental Protection Act</i> , Environmental Compliance Approval for Air and Noise [new or amendment]: – Atmospheric emissions from project
	<i>Ontario Environmental Assessment Act</i> , Class Environmental Assessment(s) for Class Environmental Assessment for Minor Transmission Facilities [new]: – Based on the preliminary project design, the Upper Beaver Gold project is expected to require completion of this Class Environmental Assessment, based on the anticipated length of the line (greater than 2 km length) in comparison to the Electricity Projects Regulation.

**Note:**

Although not expected, a provincial *Endangered Species Act* permit could be required, pending the results of ongoing environmental baseline investigations.



## **E. POTENTIAL EFFECTS OF THE PROJECT**

### **E.1 Changes to Fish and Fish Habitat, Aquatic Plants and Migratory Birds**

Table E.1 provides a preliminary listing of changes to the following that may result from the construction, operation and closure of the Upper Beaver Gold project:

- Fish and fish habitat as defined in subsection 2(1) of the *Fisheries Act*;
- Migratory birds, as defined in subsection 2(1) of the *Migratory Birds Convention Act, 1994*.

No changes to federal aquatic Species at Risk as defined in subsection 2(1) of the *Species at Risk Act* (marine plants) are anticipated, as none are known or expected to be present based on the multi-year environmental baseline studies completed to date.

This table should be considered preliminary and indicative only, subject to revision, including through the comprehensive effects assessment that will be completed as part of the Impact Assessment process and ongoing engagement activities.

### **E.2 Potential Changes to the Environment on Federal Lands or Lands outside Ontario**

The Upper Beaver Gold project is not expected to result in changes to federal lands including Reserve lands. There are no federal lands near the project site, and no development is planned to occur on federal lands or Reserve lands.

The project is not expected to result in changes to the natural and biophysical environment outside of Ontario, as will be confirmed through future modelling. The air quality assessment will evaluate potential transboundary impacts on ambient air quality, based on proximity of the Upper Beaver Gold project to the Ontario – Québec border.

Based on proximity of the Upper Beaver Gold project to the Ontario – Québec border, it is expected that some workers and contractors may travel to the site from Québec, and not just from Ontario. In addition, there will be one to two trucks per day transporting copper concentrate to a purification / refining facility in Québec over the existing Ontario / Québec highway infrastructure.

The project is not of a scale or location that could result in changes to the environment outside of Canada.

### **E.3 Potential Effects to Indigenous Peoples – Heritage, Traditional Lands and Other**

Agnico Eagle is engaging with Indigenous Nations and Peoples with respect to the construction, operation and closure of the Upper Beaver Gold project, including to determine the potential for impacts to physical and cultural heritage, and how the project may impact diverse population groups within these Indigenous Nations.

Section A.4 provides a brief summary of concerns raised by Indigenous Peoples during ongoing engagement activities to date, including through their review of a Draft Initial Project Description. The Upper Beaver Gold project may result in effects to Indigenous Nations and Peoples and diverse population groups, culture, Treaty rights, and Traditional and current uses, such as through potential changes to land access, loss of traditional lands and ability to hunt, fish, gather and/or trap as well as the ability to practice their



culture. These potential effects will be investigated through the environmental approvals process for the mine and ongoing engagement activities.

There are a number of fully investigated archaeological sites near the Upper Beaver Gold project site. Where applicable, the locations have not been fenced to allow for ongoing First Nation use, but have been designed as no work zone areas. These sites are not expected to be altered by the proposed Upper Beaver Gold project development. Structures, sites or things that are of historical, archaeological, paleontological or architectural significance to Indigenous Peoples if present within the development area of the Upper Beaver Gold project site may be impacted by construction of the project, including through the diversion of the Misema River and potential hydrology changes. These will be identified through ongoing engagement with potentially impacted Indigenous Peoples and the project engineering and design process.

Table E.2 provides a preliminary assessment of potential effects of the Upper Beaver Gold project, developed in part through ongoing engagement activities, described briefly in Appendices A and B, including through a review of a draft of this Initial Project Description by the BHFN, MFN and WFN.

#### **E.4 Potential Effects to Indigenous Peoples – Social, Economic and Health Conditions**

Agnico Eagle is engaging with Indigenous Nations to determine the potential concerns and impacts to health, social and economic conditions due to the Upper Beaver Gold project. Section A.4 lists concerns raised by Indigenous Nations related to these aspects during ongoing engagement activities to date. There may be potential effects on community health and well-being as a result of the project, which will be determined through engagement with Indigenous Nations to understand community health and well-being and social determinants of health.

Agnico Eagle believes that the overall effect to Indigenous Peoples from the Upper Beaver Gold project can be positive, particularly with respect to economic conditions. Key initiatives to support this effect include the ability to participate in employment and business opportunities (for individuals, as well as Indigenous Nations).

Agnico Eagle acknowledges there could also be negative effects to Indigenous Peoples associated with the Upper Beaver Gold project, which will be determined through ongoing engagement activities, such as:

- The effect of developments on historic and current, lands and resource uses, and ways of life / culture;
- Human health related to project emissions (effluent, air quality and noise);
- Contribution to cumulative effects already being experienced in the region;
- Impacts to physical infrastructure in the region including road safety.

The Upper Beaver Gold project may have effects on diverse population groups which will be assessed in the Impact Statement. Potential effects may include: effects on Indigenous women, elders, youth, etc.; effects on Indigenous women's safety; and/or changes on community well-being and health of Indigenous Peoples. These potential effects will be determined through ongoing engagement activities and the environmental approvals process for the mine. Agnico Eagle is engaging with Indigenous Nations to develop Indigenous Knowledge studies and to understand the culture of Indigenous Nations. Information gathered through the Indigenous Knowledge studies will inform baseline conditions and mitigation measures. Indigenous





Knowledge will be validated with Indigenous Nations to ensure information is captured and used appropriately.

Table E.2 provides a preliminary assessment of potential effects of the Upper Beaver Gold project informed in part by a review of a draft of this Initial Project Description by the BHFN, MFN and WFN.

## **E.5 Estimate of Greenhouse Gas Emissions**

An initial estimate of net greenhouse gas emissions associated with the Upper Beaver Gold project has been developed utilizing the guidance developed by Environment and Climate Change Canada. As with virtually all industrial operations, greenhouse gases will be emitted during all phases of the project (construction, operation and closure). The primary sources of greenhouse gas emissions from each project phase are expected to be:

- Construction: diesel combustion in mobile equipment;
- Operation: diesel combustion in mobile equipment, blasting in the open pit and underground, processing of ore and indirect emissions from purchased grid power;
- Closure: diesel combustion in mobile equipment.

Direct emissions (Scope 1) have been estimated at 20.9 kilotonne-CO<sub>2</sub>Eq/year. Indirect emissions (Scope 2 and off-site transport) for the Upper Beaver Gold project have been estimated at 9.7 kilotonne-CO<sub>2</sub>Eq/year.

## **E.6 Wastes and Emissions**

Table E.3 provides a brief summary of the types of wastes and emissions that are likely to be generated from the Upper Beaver Gold project, in the air, in or on water and in or on land, during the construction, operation, closure phase of the project.

### **E.6.1.1 Atmospheric Emissions**

#### **Air Emissions**

Air emissions will derive from point source and fugitive sources with fugitive sources likely to contribute the majority of the air emissions. The primary point source air emissions are expected to be suspended particulate (dust) from the conveyors and crusher(s). Measures will be taken to minimize dust creation at the plant site and to utilize dust collection devices where practical. Primary crushing is expected to take place in an enclosed structure to provide shelter and to reduce dust escaping into the environment. Additional dust control will be installed if needed.

Fugitive dust will be released from: drilling and blasting operations; loading and offloading of overburden, mine rock and ore; vehicle and heavy equipment travel; and from wind entrainment from the tailings stack / stockpiles and other exposed earth materials. Water and other approved dust suppressants will be used as required to control dust emissions.

Diesel fuel combustion, such as in vehicle and heavy equipment during all project phases will release particulates, sulphur dioxide, and nitrogen oxides from the combustion of fuel. Nitrogen gases, carbon dioxide and other trace gases will also be released from explosives usage.



### **Greenhouse Gas Emissions**

Greenhouse gas emissions will derive principally from diesel fuel combustion in heavy equipment operation. Grid power will be used to meet project stationary equipment power demands, thereby reducing direct greenhouse gas emissions at site. Greenhouse gas emissions associated with other fuel sources such as propane and gasoline are expected to be minor.

### **Noise Emissions**

The principal anthropogenic noise sources during the operation of the Upper Beaver Gold project are expected to derive from open air, heavy equipment operation, such as that associated with the mining and handling of overburden, ore and mine rock, and underground mine ventilation. Plant site operations including crushing and grinding operations will be enclosed and emissions are expected to be minor in comparison to open air noise sources. During the mine construction and closure phases, there will be additional heavy equipment operation that will contribute to noise emissions.

Noise source modeling will be carried out to ensure that noise and noise related effects are fully considered during engineering design.

### **E.6.1.2 Liquid Discharges**

#### **Minewater and Surface Contact Waters**

The underground mine will intercept groundwater, while the open pit will collect groundwater, runoff and direct precipitation. Modelling will be completed to assess the volume of water requiring management, which will be used in the design of the water management facilities on site. Minewater can be expected to contain suspended solids from general mining and earthmoving activities; ammonia residuals from ammonia-based explosives; and residual hydrocarbons from heavy equipment operation. Leaching of the exposed bedrock within the open pit may also potentially contribute minor quantities of metals to the minewater. Sumps will be used to collect the mine water locally for pumping to a central water retention pond before treatment.

Surface runoff that comes into contact with mine-related facilities will be collected in ditches / collection ponds and pumped to the primary retention pond for management and treatment. The majority of site runoff is not anticipated to pose a water quality concern. Runoff from the ore, mine rock and overburden stockpiles may contain suspended solids as well as metal concentrations (ore and mine rock only).

A treatment plant will be established to ensure that excess water from the retention pond meets all regulatory requirements and can be discharged to the environment. The discharge location has not as yet been determined, but will be selected to ensure there is sufficient assimilative capacity.

#### **Process Plant and Tailings Water**

Excess process plant, including water resulting from filtering of tailings, is expected to contain heavy metals, and residual cyanide and ammonia. The effluent may be treated within the plant or may be directed to the retention pond for combined treatment with the minewater / other site contact waters. All effluent discharged from the site will be treated to meet regulatory requirements.

#### **Domestic Sewage**

As there will be no accommodation on site, the volume of domestic sewage include grey water from the mine dry will be limited. Domestic sewage during the construction and operations phase will be treated by an appropriately-sized, technically acceptable method, such as a sewage treatment plant. Effluent meeting



regulatory requirements will be either directed to the retention pond, or potentially discharged directly to the environment.

### **E.6.1.3 Solid Wastes**

#### **Domestic Waste**

Domestic wastes produced at the project site during all project phases are likely to include: food scraps, refuse, clothing, metal tins, scrap metal, glass, plastic, wood and paper. These materials will be transported off site for management according to regulations.

#### **Special Management Waste**

Special management wastes at the site are expected to include: waste petroleum products and packaging, waste glycol, petroleum contaminated soil, waste explosives and biomedical waste. Special management wastes produced during all project phases, will be stored indoors and/or in sealed containers in lined, bermed areas (or other means of secondary containment) until they can be transported to an appropriately licensed facility off site.

#### **Demolition Waste**

Salvageable machinery, equipment and other materials will be dismantled and taken off site for sale or reuse if economically feasible. A dedicated non-hazardous landfill may be developed during the closure phase for storage of demolition wastes, such as concrete, steel, wallboard and similar materials.

## **E.7 Overview of Potential Environmental Effects**

Tables E.2 and E.3 provides an overview of changes to the environment and preliminary assessment of the potential effects of the Upper Beaver Gold project. The information presented will be clarified through ongoing engagement activities, the environmental approvals process and engineering investigations and studies for the mine. Table E.4 provides an overview of comments received to date and proposed preliminary approach to address these aspects, including in the site design as appropriate.

Anticipated wastes and emissions currently anticipated for the Upper Beaver Gold project are summarized in Section E.6 and Table E.3. Further detail regarding wastes and emissions will be determined through ongoing engineering and the environmental approvals process.

The *Impact Assessment Act* requires that cumulative effects be considered that are likely to result from the designated project in combination with other physical activities that have been or will be carried out. For the Upper Beaver Gold project, it is anticipated this would include cumulative effects associated with the exploration program and advanced exploration program at the site. Agnico Eagle is purposefully developing the Upper Beaver Gold project (the mine), to expand and/or modify facilities that are being developed during the advanced exploration program in order to minimize environmental disturbance as practical. Agnico Eagle is unaware of any other projects, apart from their exploration / advanced exploration program that could cause the Upper Beaver Gold project to have a cumulative effect on the environment. Cumulative effects will be assessed in the Impact Statement in accordance with Impact Assessment Agency of Canada guidance.



**Table E.1: Preliminary List of Changes to the Environment under Federal Jurisdiction**

<b>Environmental Component</b>	<b>Project Phase</b>	<b>Potential Source of Effect</b>	<b>Potential Change to the Environment</b>	<b>Preliminary Area of Influence</b>
Fish and fish habitat, as defined in subsection 2(1) of the <i>Fisheries Act</i>	Construction	<ul style="list-style-type: none"> <li>- Diversion of waterbodies / watercourses</li> <li>- Installation of temporary and permanent infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>- Alteration, disruption and destruction of fish and benthic fauna habitat from direct disturbance, blasting and mine dewatering</li> <li>- Change to the natural surface water flow pattern</li> <li>- Surface water quality alteration (meeting regulatory requirements, but not at background levels at discharge location)</li> </ul>	<ul style="list-style-type: none"> <li>- Project footprint</li> <li>- Project footprint</li> <li>- Project footprint and a short mixing zone downstream of the discharge location in the Misema River</li> </ul>
	Operations	<ul style="list-style-type: none"> <li>- Water management and treatment</li> </ul>	<ul style="list-style-type: none"> <li>- Surface water quality alteration (meeting regulatory requirements, but not at background levels at discharge location)</li> </ul>	<ul style="list-style-type: none"> <li>- Project footprint and a short mixing zone downstream of the discharge location in the Misema River</li> </ul>
	Closure	<ul style="list-style-type: none"> <li>- Site reclamation and closure</li> </ul>	<ul style="list-style-type: none"> <li>- Surface water quality alteration until discharge ends and site is reclaimed</li> <li>- Potential for creation of fish habitat in new pit lake, expected to be re-connected to the Misema River system</li> </ul>	<ul style="list-style-type: none"> <li>- Project footprint and a short mixing zone downstream of the discharge location in the Misema River</li> <li>- Project footprint</li> </ul>



<b>Environmental Component</b>	<b>Project Phase</b>	<b>Potential Source of Effect</b>	<b>Potential Change to the Environment</b>	<b>Preliminary Area of Influence</b>
Migratory birds, as defined in subsection 2(1) of the <i>Migratory Birds Convention Act, 1994</i>	Construction	<ul style="list-style-type: none"> <li>- Clearing of habitat to allow for site construction</li> <li>- Installation of permanent facilities</li> <li>- Additional vehicle traffic</li> </ul>	<ul style="list-style-type: none"> <li>- Habitat loss</li> <li>- Disturbance of species</li> <li>- Increased risk of collision or mortality</li> </ul>	<ul style="list-style-type: none"> <li>- Project footprint</li> <li>- Potential limited area outside the footprint related to noise disturbance</li> <li>- Primarily related to local roads</li> </ul>
	Operations	<ul style="list-style-type: none"> <li>- Operation of permanent facilities</li> <li>- Additional vehicle traffic</li> </ul>	<ul style="list-style-type: none"> <li>- Disturbance of species</li> <li>- Increased risk of collision or mortality</li> </ul>	<ul style="list-style-type: none"> <li>- Potential limited area outside the footprint related to noise disturbance</li> <li>- Primarily related to local roads</li> </ul>
	Closure	<ul style="list-style-type: none"> <li>- Site reclamation and closure</li> </ul>	<ul style="list-style-type: none"> <li>- Habitat redevelopment</li> </ul>	<ul style="list-style-type: none"> <li>- Project footprint</li> </ul>



**Table E.2: Preliminary Summary of Potential Environmental Effects**

<b>Environmental Component</b>	<b>Potential Effect (Preliminary)</b>	<b>Proposed Mitigation (Preliminary)</b>
<p>Air Quality, Greenhouse Gases, Noise and Light</p>	<ul style="list-style-type: none"> <li>- Air emissions have the potential to generate dust or products of petroleum hydrocarbon combustion</li> <li>- Noise emissions from the project have the potential to disturb other area users</li> <li>- Greenhouse gas emissions from project have a minor potential to contribute to global carbon dioxide emissions</li> <li>- Operation of an industrial facility will cause a localized light glow that is visible off site</li> <li>- Impacts on how and where Indigenous Nations Rights are exercised</li> </ul> <p><b>Preliminary: Areal Extent</b></p> <ul style="list-style-type: none"> <li>- Air quality regulatory requirements will be met at property boundary</li> <li>- Noise regulatory requirements will be met at nearest receptor (cottage)</li> <li>- A night glow is expected to be visible off site</li> </ul>	<ul style="list-style-type: none"> <li>- Provincial regulatory requirements will be met for on-site emissions and air quality at the property boundary</li> <li>- Provincial regulatory criteria will be met for on-site emissions and at surrounding noise sensitive locations, such as cottages</li> <li>- Appropriate management practices / plans will be developed and implemented</li> <li>- Water sprays will be used to control dust emissions from haul roads and construction areas, and best management practices will be followed for dust control during operations</li> <li>- Measures will be used to reduce sound emission effects, such as: developing a compact site, maintaining tree screens around work areas, reducing the overall height of stockpiles, maintaining equipment in good working order and utilizing efficient mufflers</li> <li>- Development of a compact overall site, as proposed, will reduce haulage / transportation distances for greater fuel economy and reduce greenhouse gas emissions</li> <li>- Maintaining equipment and vehicles in good working order also improves on fuel combustion efficiency</li> <li>- Care will be taken to ensure lights are properly aimed to minimize off-site light disturbance</li> </ul>
<p>Local waterbodies / watercourses</p>	<ul style="list-style-type: none"> <li>- Project development may overprint small creeks and beaver ponds, and have the potential to reduce downstream flow in the immediate vicinity, but flow is returned to the same watershed elsewhere</li> </ul>	<ul style="list-style-type: none"> <li>- Effluent discharge to the environment will meet all federal and provincial regulatory requirements</li> <li>- In-water structures will be designed to avoid interference with navigation as reasonable</li> </ul>



Environmental Component	Potential Effect (Preliminary)	Proposed Mitigation (Preliminary)
	<ul style="list-style-type: none"> <li>- A portion of the local surface water system will require dewatering (York Lake) and diversion (Misema River) in order to safely mine the underground resources, which will result in a disruption to fish habitat</li> <li>- Vibration (such as from explosives use) may disturb aquatics species</li> <li>- An intake / discharge location is proposed (to be determined), which has the potential for habitat disturbance and to affect water quality and flows</li> <li>- Three or more new crossings at locations to be determined may be needed, which has the potential for habitat disturbance</li> <li>- Impacts on how and where Indigenous Nations Rights are exercised</li> </ul> <p><b>Preliminary: Areal Extent</b></p> <ul style="list-style-type: none"> <li>- Habitat disturbance will be limited to project footprint</li> <li>- Effluent quality will meet regulatory requirements before release to environment and will be protective of aquatic life</li> <li>- There may be a small area downstream of the discharge location (mixing zone) where water quality may not be the same as the background water quality</li> </ul>	<ul style="list-style-type: none"> <li>- Compensatory aquatic habitat, which will be consulted upon and approved through a rigorous federal process, will be provided to mitigate effects to aquatic resources, including habitat loss</li> <li>- Establishment of an open pit will support the removal of historic mine rock and tailings that are currently within or adjacent to the Misema River system</li> <li>- Preliminary plan is to re-connect the water re-filled open pit (pit lake) to the Misema River system on closure, which will increase the overall lake size for future uses</li> </ul>
Groundwater System	<ul style="list-style-type: none"> <li>- Open pit and potentially underground mine dewatering will affect the local groundwater levels and may affect surface water flows, although not expected to be material based on historical information</li> <li>- Groundwater quality is not expected to be affected</li> </ul>	<ul style="list-style-type: none"> <li>- Modelling investigations will fully assess potential effects to support mitigation, if needed</li> <li>- Groundwater levels will return after the mine workings, including the open pit, flood at closure</li> </ul>



Environmental Component	Potential Effect (Preliminary)	Proposed Mitigation (Preliminary)
	<p><b>Preliminary: Areal Extent</b></p> <ul style="list-style-type: none"> <li>- Dewatering may result in a depression in the local groundwater level, but based on historical information, it is anticipated to be narrow and primarily limited to the project footprint</li> </ul>	
Natural Vegetation and Wildlife	<ul style="list-style-type: none"> <li>- Wildlife (and including Moose and other furbearers) may be disturbed by site activities and disturbance, including noise</li> <li>- Mine site and related infrastructure development, if any, will displace existing terrestrial habitat</li> <li>- Mine site development may displace existing terrestrial habitat for Species at Risk</li> <li>- Impacts on how and where Indigenous Nations Rights are exercised</li> </ul> <p><b>Preliminary: Areal Extent</b></p> <ul style="list-style-type: none"> <li>- Habitat disturbance will be limited to project footprint</li> <li>- Potential limited area outside the footprint related to noise disturbance</li> <li>- Increase potential for wildlife collision primarily on local roads</li> </ul>	<ul style="list-style-type: none"> <li>- The majority of the site has been previously disturbed through past forestry, exploration or mining activities, or will be disturbed by the proposed advanced exploration program, but some areas to be affected remain a more natural condition</li> <li>- A compact site for the new mine will be developed to limit disturbance to new areas as reasonable</li> <li>- Tree clearing will be avoided during the bird nesting season</li> <li>- The site will be reclaimed after mining ends to support future productive habitat</li> </ul>
Hunting, Trapping, Fishing and Tourism	<ul style="list-style-type: none"> <li>- Limited effect as the mine is to be located on an active advanced exploration program site on private property, where access is controlled / restricted for safety of workers.</li> <li>- There will be a more extensive disruption to the local experience in the immediate vicinity of the site from the larger scale mining operation</li> </ul>	<ul style="list-style-type: none"> <li>- Agnico Eagle intends to continue work with its neighbours to mitigate potential localized effects during operation</li> <li>- Hunting will continue to be restricted on the project site in order to ensure the safety of workers and others</li> <li>- On closure, the disruption will cease and the existing hazards in York Lake (tailings and mine rock) will be removed, which will enhance the area in the future</li> <li>- The preliminary plan is to connect the pit lake from the flooding of the open pit to the Misema River</li> </ul>





Environmental Component	Potential Effect (Preliminary)	Proposed Mitigation (Preliminary)
	<p><b>Preliminary: Areal Extent</b></p> <ul style="list-style-type: none"> <li>- Potential limited area outside the footprint related to noise disturbance, including Ava Lake and a portion of Beaverhouse Lake</li> </ul>	<ul style="list-style-type: none"> <li>- system on closure, which will increase the overall lake size for future uses</li> </ul>
Commercial Operations	<ul style="list-style-type: none"> <li>- Could limit access to people and resources for other operations and potentially draw local people back to the area for jobs</li> </ul> <p><b>Preliminary: Areal Extent</b></p> <ul style="list-style-type: none"> <li>- To be determined</li> </ul>	<ul style="list-style-type: none"> <li>- No mitigation measures are proposed, other than to optimize economic benefits to the local and regional economies, including to local Indigenous Nations as reasonable</li> </ul>
Traditional use of lands and resources	<ul style="list-style-type: none"> <li>- Effects on spiritual relationships and connection with the environment</li> <li>- Effects on locations of sentimental, traditional and heritage value</li> <li>- Effects on traditional use of lands and resources as sites of value and interest to First Nation(s)</li> <li>- Effects on cultural practices</li> <li>- Changes to land and resources resulting in effects on exercising rights</li> </ul> <p><b>Preliminary: Areal Extent</b></p> <ul style="list-style-type: none"> <li>- Potential limited area outside the mine-held lands related to noise disturbance</li> </ul>	<ul style="list-style-type: none"> <li>- Ongoing engagement with Indigenous Nations to mitigate potential effects</li> </ul>
Indigenous / Public Health and Safety	<ul style="list-style-type: none"> <li>- All regulatory requirements (such as for air quality, noise, water quality and similar) will be met</li> <li>- Effects on Indigenous women's safety</li> <li>- Effects on Indigenous women, youth, elders, etc.</li> <li>- Changes to community safety and well-being and health of Indigenous Peoples</li> <li>- Increased risk of vehicle collision due to increased traffic</li> </ul>	<ul style="list-style-type: none"> <li>- Agnico Eagle with work with local Indigenous Nations with an aim of helping ensure the project will provide a positive benefit</li> <li>- Traffic management and awareness will reduce potential for accidents on public roads</li> <li>- Potential to establish a road extension for local cottage traffic</li> </ul>



Environmental Component	Potential Effect (Preliminary)	Proposed Mitigation (Preliminary)
Socio-economics	<ul style="list-style-type: none"> <li>- Benefits including employment and procurement opportunities</li> <li>- Benefits for education and training opportunities</li> <li>- Effects on healthcare services and providers</li> <li>- Effects on traffic due to mine personnel commuting to site</li> </ul>	<ul style="list-style-type: none"> <li>- Agnico Eagle with work with local Indigenous Nations and with communities with an aim of helping ensure the project will provide a positive benefit</li> </ul>
Physical and cultural heritage	<ul style="list-style-type: none"> <li>- No anticipated effect to known archaeology sites</li> <li>- Effects to cultural heritage to be determined</li> </ul> <p><b>Preliminary: Areal Extent</b></p> <ul style="list-style-type: none"> <li>- Heritage disturbance will be limited to project footprint</li> </ul>	<ul style="list-style-type: none"> <li>- Archaeological studies have been conducted and no cultural heritage features or artefacts have been identified in locations of proposed development</li> <li>- This will continue to be reviewed as the project's designs and progress, including relation to the diversion of the Misema River, and mitigation will be completed, if needed</li> <li>- Measures will be put in place to identify any as yet undetected features or artefacts during construction</li> </ul>
Identified structures or sites *	<ul style="list-style-type: none"> <li>- No effect expected, pending determination of diversion routing / water levels</li> </ul>	<ul style="list-style-type: none"> <li>- None expected to be required, other than protection</li> </ul>

**Note:**

\* Structures or sites of historical, archaeological, palaeontological or architectural significance.

This preliminary assessment of potential effects was developed in part through ongoing engagement activities, including through a review of a draft of the Initial Project Description by the BHFN, MFN and WFN.



**Table E.3: Preliminary Listing of Types of Wastes or Emissions**

<b>Environmental Component</b>	<b>Project Phase</b>	<b>Anticipated Waste or Emission</b>
In the air	Construction	<ul style="list-style-type: none"> <li>- Dust emissions</li> <li>- Emissions from machinery and equipment</li> <li>- Noise</li> <li>- Light</li> </ul>
	Operations	<ul style="list-style-type: none"> <li>- Dust emissions</li> <li>- Emissions from machinery and equipment</li> <li>- Noise</li> <li>- Light</li> </ul>
	Closure	<ul style="list-style-type: none"> <li>- Dust emissions</li> <li>- Emissions from machinery and equipment including greenhouse gases</li> <li>- Noise</li> <li>- Light</li> </ul>
In or on land	Construction	<ul style="list-style-type: none"> <li>- Domestic solid waste</li> <li>- Regulated and non-regulated, industrial solid and liquid waste</li> <li>- Mineral waste (overburden and mine rock)</li> <li>- Vibration</li> </ul>
	Operations	<ul style="list-style-type: none"> <li>- Domestic solid waste</li> <li>- Regulated and non-regulated, industrial solid and liquid waste</li> <li>- Mineral waste (overburden, mine rock and tailings)</li> <li>- Vibration</li> </ul>
	Closure	<ul style="list-style-type: none"> <li>- Domestic solid waste</li> <li>- Regulated and non-regulated, industrial solid and liquid waste</li> </ul>
In or on water	Construction	<ul style="list-style-type: none"> <li>- Treated contact runoff</li> <li>- Treated domestic sewage</li> </ul>
	Operations	<ul style="list-style-type: none"> <li>- Treated contact runoff and effluent</li> <li>- Treated domestic sewage</li> </ul>
	Closure	<ul style="list-style-type: none"> <li>- Treated contact runoff and effluent</li> <li>- Treated domestic sewage</li> </ul>



**Table E.4: Preliminary Comments and Preliminary Approach / Actions**

<b>Summary of Preliminary Comments / Concern regarding the Upper Beaver Gold project</b>	<b>Preliminary Approach to Address / Actions</b>
<ul style="list-style-type: none"> <li>- Will access be retained to Beaverhouse Lake?</li> <li>- How will the spawning beds / closure to the boat launch at Beaverhouse Lake be affected?</li> </ul>	<ul style="list-style-type: none"> <li>- Agnico Eagle will ensure that access is retained to Beaverhouse Lake. The current plan is to establish a new, improved access route that will avoid the mine site.</li> <li>- There will be no direct effect on the spawning beds. Water levels in Beaverhouse Lake are proposed to be retained at current levels. Any potential indirect effects to Beaverhouse Lake will be fully assessed through the environmental regulatory process.</li> </ul>
<ul style="list-style-type: none"> <li>- Will Indigenous Knowledge be considered, such as location of medicinal plants, harvestable plants and wildlife?</li> </ul>	<ul style="list-style-type: none"> <li>- Agnico Eagle hopes to be able to work with local Indigenous Nations to help document this information, so that it can be used in assessing potential effects from the Upper Beaver Gold project and developing appropriate mitigation strategies.</li> </ul>
<ul style="list-style-type: none"> <li>- Will local community members be able to be involved in the planning and approvals process?</li> </ul>	<ul style="list-style-type: none"> <li>- There is a rigorous approvals process to develop any new mine in Ontario. As part of that process there are required periods when individual community members can comment. Agnico Eagle will respond to all comments received through this process, but also continue its ongoing process of consultation and engagement with Indigenous Nations, local cottagers and other stakeholders.</li> </ul>
<ul style="list-style-type: none"> <li>- York Lake is connected to a series of lakes. What will the effect be of draining the lake on the lake system?</li> </ul>	<ul style="list-style-type: none"> <li>- The potential effects on the Misema River system will be fully assessed through the regulatory process.</li> <li>- Agnico Eagle intends to maintain the lake levels in the other lakes, by creating a diversion around York Lake before it is dewatered.</li> <li>- Because parts of York Lake were infilled historically with mine tailings and rock, the habitat in the lake is not the same as natural lakes. As part of the regulatory process, Agnico Eagle will need to develop a strategy to provide compensation for this loss of habitat.</li> <li>- Fish present in the lake will be removed as reasonable prior to completion of the dewatering of York Lake, and will be transferred to another reasonable location nearby in discussion with the approval of the regulatory authorities expected to be required.</li> </ul>
<ul style="list-style-type: none"> <li>- How big is the open pit? Will draining the lake help solve the problem of containing water from your underground workings?</li> </ul>	<ul style="list-style-type: none"> <li>- The open pit is relatively small (about 330 m in length / less across) compared to some other open mines as it is part of what is primarily and underground mine operation.</li> <li>- Agnico Eagle will contract specialists to help assess the groundwater aspects of the underground mine to ensure both the safety of the workers, as well as being able to accurately assess potential environmental effects on the surrounding area prior to the development occurring.</li> </ul>



<p><b>Summary of Preliminary Comments / Concern regarding the Upper Beaver Gold project</b></p>	<p><b>Preliminary Approach to Address / Actions</b></p>
<ul style="list-style-type: none"> <li>- Dust, noise and traffic impacts (such as speed) are of concern</li> <li>- Dust emission, noise, vibration, light pollution and visual impact during operation</li> <li>- Quality of life for cottagers</li> </ul>	<ul style="list-style-type: none"> <li>- Although this is a historic mining location and an area with a number of mines, Agnico Eagle acknowledges that development of a new mine will change the local area until the mine is closed and reclaimed. At that time, Agnico Eagle believe the local area will be improved, including with the removal of historic safety hazards and mine wastes (mine rock and tailings in/at York Lake).</li> <li>- Agnico Eagle believes that through proper mitigation many of the local concerns will be alleviated. These measures will be fully defined through the regulatory process but expected to include (but are not limited to):               <ul style="list-style-type: none"> <li>- Effective controls on dust (stockpiles design, retaining vegetation, use of water sprays)</li> <li>- Selecting quieter machine options (such as power supply) when reasonable</li> <li>- Keeping equipment well maintained</li> <li>- Where practical, locating facilities to minimize off-site effects</li> <li>- Proper road maintenance and imposing speed limits on any roads under Agnico Eagle control</li> <li>- Aiming lights purposefully where needed for safety.</li> <li>- Agnico Eagle will monitor the potential effects determined through the studies during construction and operation, and will apply additional mitigation measures if needed to reduce impacts.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>- How will the site be cleaned up at closure?</li> </ul>	<ul style="list-style-type: none"> <li>- During the mine construction and operation Agnico Eagle will remediate the historic hazards within the mine footprint. As reasonable, progressive reclamation will also occur during the operation phase for the effects of the mine, but most of the reclamation will occur after the mine closes.</li> <li>- A preliminary plan to reclaim the site will be included and provided for comment during the impact assessment process. In addition, a detailed regulatory Closure Plan will be required before any construction starts for the mine. As part of that process, Agnico Eagle will be required before mining starts, to provide the provincial government with financial assurance (such as a bond), for the full amount to close the mine to ensure the public is protected.</li> </ul>
<ul style="list-style-type: none"> <li>- Will there be contracting and jobs available?</li> </ul>	<ul style="list-style-type: none"> <li>- Agnico Eagle will set up a process to ensure that local communities are aware of potential opportunities. Although some of the contracts and jobs will be very specialized and may not be able to be filled locally, Agnico Eagle would like to ensure that local people also get benefits from the mine.</li> </ul>



## F. REFERENCES

- Algonquin Anishinabeg Nation. 2016. Algonquin Anishinabeg Nation. <https://www.anishinabestation.ca/en/>. Accessed July 2021.
- Azimuth Environmental Consulting (Azimuth). 2013. Upper Beaver Project Terrestrial Baseline Report, Gauthier Township, Ontario. Draft.
- 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](https://sidait-atris.aadnc-aandc.gc.ca/atris_online/home-accueil.aspx). Accessed July 5, 2021.
- Health Quality Ontario. 2020. Health in the North. <https://healthinthenorth.hqontario.ca/>. Accessed February 2020.
- Indian and Northern Affairs Canada (INAC). 2019a. First Nation Detail (Wahgoshig First Nation). [https://fnp-ppn.aadnc-aandc.gc.ca/fnp/Main/Search/FNMain.aspx?BAND\\_NUMBER=233&lang=eng](https://fnp-ppn.aadnc-aandc.gc.ca/fnp/Main/Search/FNMain.aspx?BAND_NUMBER=233&lang=eng). Accessed July 2021.
- Indian and Northern Affairs Canada (INAC). 2019b. First Nation Detail (Matachewan First Nation). [https://fnp-ppn.aadnc-aandc.gc.ca/fnp/Main/Search/FNMain.aspx?BAND\\_NUMBER=219&lang=eng](https://fnp-ppn.aadnc-aandc.gc.ca/fnp/Main/Search/FNMain.aspx?BAND_NUMBER=219&lang=eng). Accessed July 2021.
- Indian and Northern Affairs Canada (INAC). 2019c. First Nation Detail (Timiskaming First Nation). [https://fnp-ppn.aadnc-aandc.gc.ca/fnp/Main/Search/FNMain.aspx?BAND\\_NUMBER=64&lang=eng](https://fnp-ppn.aadnc-aandc.gc.ca/fnp/Main/Search/FNMain.aspx?BAND_NUMBER=64&lang=eng). Accessed July 2021.
- Lorax. 2019. Upper Beaver Project: Waste Rock and Ore Static Test Characterization – Draft.
- Matachewan First Nation. 2021. Matachewan First Nation. <https://www.matachewanfirstnation.com/>. Accessed July 2021.
- Métis Nation of Ontario. 2021. Harvesting. <https://www.metisnation.org/registry/harvesting/>. Accessed July 5, 2021.
- Ontario Mining Association (OMA). 2021. Ontario Mining, Facts & Figures. [https://oma.on.ca/en/ontariomining/facts\\_figures.asp](https://oma.on.ca/en/ontariomining/facts_figures.asp). Accessed February 2021.
- Statistics Canada. 2018a. Aboriginal Population Profile, 2016 Census - Wahgoshig First Nation [First Nation/Indian band or Tribal Council area], Ontario. <https://statcan.gc.ca>. Accessed July 2021.
- Statistics Canada. 2018b. Aboriginal Population Profile, 2016 Census - Matachewan First Nation [First Nation/Indian band or Tribal Council area], Ontario. <https://statcan.gc.ca>. Accessed July 2021.
- Statistics Canada. 2018c. Aboriginal Population Profile, 2016 Census - Timiskaming First Nation [First Nation/Indian band or Tribal Council area], Ontario. <https://statcan.gc.ca>. Accessed July 2021.



Steffen Robertson & Kirsten (SRK). 2017 SRK Consulting (Canada) Inc., 2017. Upper Beaver Hydrogeology PFS. Saskatoon: Prepared for Canadian Malartic Corporation.

Steffen Robertson & Kirsten (SRK). 2019. Upper Beaver Zone Advance Exploration Project Hydrogeological Impact Assessment, prepared by SRK Consulting (Canada) Inc. February 2019.

Story Environmental (SEI). 2013. Upper Beaver Project Aquatic Baseline Study – DRAFT.

Story Environmental (SEI). 2020. Upper Beaver Zone Advanced Exploration Project 2019 Closure Plan Amendment, Gauthier and McVittie Townships, Ontario.

Woodland Heritage Northeast Limited (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.

## **APPENDIX A**

### **COMMUNITY INPUT AND OUTCOMES - STAKEHOLDERS**





**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

Responses provided and key issues have been distinguished per Project’s phases, based on the information available to date. Distinction for potential impact per Project’s components will be made within the Impact Assessment study and engagement activities.

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>COTTAGERS AND PROPERTY OWNERS</b>											
<b>LAND SHARING AND USE</b>											
Quality of life	<ul style="list-style-type: none"> <li>▶ Project’s potential impacts on the cottager’s quality of life</li> </ul>			✓	✓	✓	✓	✓			<ul style="list-style-type: none"> <li>▶ Agnico Eagle will inform stakeholders of the baseline studies planned in 2021.</li> <li>▶ Engagement activities planned in 2021 will be validated with stakeholders and adjusted if deemed necessary.</li> <li>▶ Agnico Eagle will also hold workshop meetings with cottagers to agree on collaboration modalities and validate mitigation measures planned according to each phase of the Project (collaboration on a Good Neighbouring Guide).</li> </ul>



**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
Emergency measures	<ul style="list-style-type: none"> <li>Safety of cottagers from mining activities in case of emergency (ex: fire)</li> </ul>			✓	✓	✓	✓	✓			<ul style="list-style-type: none"> <li>Agnico Eagle follows regulations, including when there is a fire warning or ban.</li> <li>There will be eventually a safety person on the Upper Beaver site.</li> </ul>
	<ul style="list-style-type: none"> <li>Emergency alert system and evacuation protocol in case of emergency (ex: fire)</li> </ul>		✓			✓	✓	✓			<ul style="list-style-type: none"> <li>An emergency alert system will be developed when there are more workers on the site.</li> </ul>
Potential property acquisition	<ul style="list-style-type: none"> <li>Share with Agnico Eagle’s shareholders one cottager’s suggestion to evaluate the possibility of buying surrounding properties out</li> </ul>		✓		✓	✓					<ul style="list-style-type: none"> <li>Agnico Eagle has mentioned being open to analyze all suggestions and wish to reach a common agreement.</li> <li>Good Neighbouring Approach has been suggested to cottagers to make the next steps more predictable and make sure solutions suit all parties.</li> <li>Agnico Eagle had shared examples of Good Neighbouring Guide developed in collaboration with communities elsewhere to show its openness.</li> <li>Agnico Eagle had presented guidelines for property acquisition.</li> </ul>



**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
Access to Beaverhouse Lake	▶ Keeping the access to the lake (with the boat launch)			✓		✓	✓	✓			▶ Agnico Eagle will maintain an access to Beaverhouse Lake.
	▶ Having a new boat launch		✓				✓	✓			▶ Agnico Eagle will hold a workshop with cottagers to gather suggestions that would meet the needs of most users. ▶ Agnico Eagle will assess the suggestions to confirm their feasibility.
	▶ Not having a new boat launch to avoid increasing the number of users of the lake		✓				✓	✓			
	▶ Having a new access road from Fork Lake Road		✓				✓	✓			
Landscape	▶ Visual aspect of infrastructure			✓		✓	✓	✓			▶ Infrastructure will be kept as low as reasonable (by considering footprint). ▶ Vegetation buffers will be kept.
Luminosity	▶ Seeing the light from the site at their cottage			✓		✓	✓	✓			▶ Care will be taken to ensure lights are appropriately aimed to minimize off-site disturbance.
WILDLIFE											
N/A	▶ N/A										▶ N/A
FISH AND FISH HABITAT											
N/A	▶ N/A										▶ N/A





**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>COMMUNITY ENGAGEMENT</b>											
Engagement activities	<ul style="list-style-type: none"> <li>Maintaining contact as the Project progresses</li> </ul>			✓	✓	✓	✓	✓	✓		<ul style="list-style-type: none"> <li>Agnico Eagle is having frequent meetings with cottagers, sends updates by email, shares Newsletters, provided a Q&amp;A Document, and developed a dedicated project website.</li> </ul>
	<ul style="list-style-type: none"> <li>Influence of stakeholder feedback on the Project's design</li> </ul>			✓							<ul style="list-style-type: none"> <li>Agnico Eagle is open to receiving suggestions for evaluation.</li> <li>Agnico Eagle is proposing to hold a workshop in the coming months to discuss different topics and get cottagers' input.</li> <li>Agnico Eagle encourages participating in the Impact Assessment Agency consultation.</li> </ul>
<b>WATER MANAGEMENT</b>											
Water taking	<ul style="list-style-type: none"> <li>Groundwater levels and quality with regards to future potential residential wells</li> <li>Water taking from Ava Lake and potential impact on surface water</li> </ul>			✓		✓	✓	✓			<ul style="list-style-type: none"> <li>Agnico Eagle will take this concern into consideration.</li> <li>According to current hydrology information, the Project should not affect water levels.</li> <li>Necessary measures will be taken to ensure the dewatering plan meets regulatory approval.</li> </ul>



**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
Water diversion	▶ Dewatering of York Lake			✓			✓	✓			<ul style="list-style-type: none"> <li>▶ Rationale about the necessity of dewatering and diversion was provided to cottagers and land owners.</li> <li>▶ The dewatering is required to ensure the safest and most sustainable development of the project.</li> <li>▶ It is required to manage risk associated with rock stability issues at surface related to historical mining, to ensure safety of our workers and maintain the viability of the project.</li> </ul>
Water quality	▶ Contamination and regulatory requirement			✓		✓	✓	✓			<ul style="list-style-type: none"> <li>▶ Agnico Eagle will have water treatment designed to reach very low concentrations and meet regulations.</li> <li>▶ Effluent limits are calculated with the capacity of the receiver.</li> </ul>
Water effluent	▶ Location of the discharge effluent	✓				✓					<ul style="list-style-type: none"> <li>▶ Effluent discharge will be located downstream of the Beaverhouse Lake area cottagers, in the Misema River.</li> </ul>
<b>SOCIOECONOMIC IMPACTS</b>											
N/A	▶ N/A										▶ N/A



**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
NOISE AND VIBRATION											
Noise	▶ Noise caused by exploration activities			✓	✓						<ul style="list-style-type: none"> <li>▶ Agnico Eagle developed an action plan for the summer of 2021.</li> <li>▶ Agnico Eagle presented the action plan to cottagers in spring 2021.</li> <li>▶ The plan has been implemented during summer 2021.</li> </ul>
	▶ Use waste rock berm to reduce noise from Advanced Exploration		✓			✓					<ul style="list-style-type: none"> <li>▶ Agnico Eagle considered this is a potential additional mitigation measure that could be implemented following evaluation.</li> </ul>



**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
Noise (cont'd)	<ul style="list-style-type: none"> <li>Noise from the crushing activities, ventilation fans and others</li> </ul>			✓		✓	✓	✓			<ul style="list-style-type: none"> <li>For Advanced Exploration, to reduce the potential noise levels, Agnico Eagle will install fans underground where reasonable and has designed the portal orientation to reduce noise to receivers.</li> <li>Other measures are considered such as using broadband backup signals, scheduling work to limit surface activities during the evening period, having noise barriers, etc.</li> <li>For the Upper Beaver Gold project, studies will be undertaken to assess the expected noise levels, after which we will develop the required measures to mitigate the noise impacts on the surrounding neighbourhood.</li> <li>For example, the crusher is planned to be placed inside a building.</li> </ul>



**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
Noise (cont'd)	▶ Noise from the pit operation			✓			✓	✓	✓	✓	<ul style="list-style-type: none"> <li>▶ As Agnico Eagle is still assessing the various scenarios of the production, detailed studies for the Upper Beaver Gold project have not yet been completed.</li> <li>▶ Through Agnico Eagle’s extensive experience with underground and open-pit mining, they have developed best practices to mitigate noise impacts.</li> </ul>
	▶ Noise monitoring activities	✓			✓	✓	✓	✓		✓	<ul style="list-style-type: none"> <li>▶ Everywhere Agnico Eagle operates, the goal is to not only meet, but exceed regulatory requirements for health, safety and environmental protection.</li> <li>▶ Agnico Eagle is committed to reducing noise from our activities as practical, in addition to meeting regulatory requirements.</li> </ul>





**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
ROAD SHARING AND TRAFFIC											
Road safety	<ul style="list-style-type: none"> <li>Workers driving too fast on the road</li> </ul>			✓	✓	✓	✓	✓			<ul style="list-style-type: none"> <li>With the progress of the different development phases, Agnico Eagle will increase its presence on site.</li> <li>Agnico Eagle is committed to increasing awareness with its employees and contractors.</li> <li>Agnico Eagle is committed to maintaining road conditions under their control, and improve the road as the development of the Project progresses.</li> <li>An official complaint management mechanism was implemented.</li> <li>Installation of speed radar limit sign.</li> </ul>
	<ul style="list-style-type: none"> <li>Having bus transportation for the employees</li> </ul>		✓				✓	✓	✓		
Road condition	<ul style="list-style-type: none"> <li>Condition of the road that is shared</li> </ul>			✓	✓	✓	✓	✓			<ul style="list-style-type: none"> <li>Agnico Eagle is committed to maintaining road conditions under their control, and improving the road as the development of the Project progresses.</li> </ul>



**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
Accessibility of the road	<ul style="list-style-type: none"> <li>Maintaining the accessibility to their cottages by the boat launch</li> </ul>			✓		✓	✓	✓			<ul style="list-style-type: none"> <li>Agnico Eagle will maintain access to the lake to land users.</li> <li>For Advanced Exploration, the same access will remain accessible.</li> <li>For the Production Phase, a portion of the road may be relocated.</li> <li>Alternatives will be discussed with different land users.</li> </ul>
	<ul style="list-style-type: none"> <li>Using trail on Agnico Eagle’s land instead of boat launch</li> </ul>	✓				✓	✓	✓			<ul style="list-style-type: none"> <li>Agnico Eagle cannot guarantee to keep the existing access in the future, as it is located on the Project site, but have no objection that cottagers using it until an alternative is available, unless unexpected safety considerations arise.</li> <li>Agnico Eagle will do his best to maintain access there.</li> </ul>



**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>AIR QUALITY AND DUST</b>											
Dust management	▶ Dust generated by a potential crusher on-site			✓			✓	✓			▶ Impact Assessment will be done to confirm the potential impacts. ▶ Commitment from Agnico Eagle to mitigate impacts for the community. ▶ Agnico Eagle will meet the regulatory standards.
<b>CLOSURE PLAN AND LAND REHABILITATION</b>											
N/A	▶ N/A										▶ N/A
<b>MUNICIPALITIES REPRESENTATIVES CLOSE TO PROJECT</b>											
<b>LAND SHARING AND USE</b>											
N/A	▶ N/A										▶ N/A
<b>WILDLIFE</b>											
N/A	▶ N/A										▶ N/A
<b>FISH AND FISH HABITAT</b>											
Fish population	▶ Fish restocking once the Project is completed		✓							✓	▶ Agnico Eagle will first have to complete the Impact Assessment but is open to considering the suggestion.



**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>COMMUNITY ENGAGEMENT</b>											
Engagement activities with citizens	<ul style="list-style-type: none"> <li>Concern with how Agnico Eagle will reach out to citizens considering the pandemic situation</li> </ul>	✓			✓						<ul style="list-style-type: none"> <li>Agnico Eagle will communicate with municipalities to identify best ways to reach out to citizens considering the pandemic situation.</li> </ul>
<b>WATER MANAGEMENT</b>											
Flooding issues	<ul style="list-style-type: none"> <li>Water management and consideration of spring flooding around the Misema River</li> </ul>			✓		✓	✓	✓			<ul style="list-style-type: none"> <li>Agnico Eagle confirmed to participants that the diverting of the water will be taken into consideration of the natural hydrologic conditions.</li> <li>As is within Agnico Eagle’s control, the water level will be maintained within the range of natural variation.</li> <li>Agnico Eagle has mentioned being open to meeting with the citizens living near the Misema River to discuss the historic water fluctuation on the Misema River.</li> </ul>
	<ul style="list-style-type: none"> <li>Include the absence of vegetation around the Misema River when calculations of water flow will be conducted and share the results</li> </ul>		✓					✓	✓		<ul style="list-style-type: none"> <li>Agnico Eagle confirmed to participants that the absence of vegetation will be considered.</li> <li>Agnico Eagle will present the results of the studies once they are done.</li> </ul>



**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
Water quality	<ul style="list-style-type: none"> <li>Water quality of the Misema River for protection of other water uses: fishing, farms, municipality intake, etc.</li> </ul>	✓				✓	✓	✓	✓	✓	<ul style="list-style-type: none"> <li>All water discharged from the site will be treated as needed to ensure all applicable regulatory requirements are met.</li> <li>There will be water treatment plants for domestic sewage water, and for industrial sewage.</li> <li>These plants are designed to meet the effluent limits that are calculated based on the capacity of the receiver.</li> </ul>
<b>SOCIOECONOMIC IMPACTS</b>											
Socioeconomic impacts	<ul style="list-style-type: none"> <li>The number of employees currently working on the Upper Beaver project</li> </ul>	✓			✓						<ul style="list-style-type: none"> <li>As of February 2021, there are 29 employees and contractors working at the Upper Beaver Gold project site and approximately 100 people are working on the Project.</li> </ul>
	<ul style="list-style-type: none"> <li>Maximization of job creation, local partnerships, and training for local workers</li> </ul>			✓	✓	✓	✓	✓			<ul style="list-style-type: none"> <li>Agnico Eagle is commitment to maximizing positive outcomes for local communities as reasonable.</li> </ul>



**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
Socioeconomic impacts (cont'd)	<ul style="list-style-type: none"> <li>▶ Importance of sharing Agnico Eagle's Project positive economic impacts in the area, including for local business, contractors and workers</li> </ul>		✓		✓	✓	✓	✓			<ul style="list-style-type: none"> <li>▶ Agnico Eagle agrees on the importance of sharing those messages with the community.</li> <li>▶ The Project's website will be useful to do so.</li> </ul>
	<ul style="list-style-type: none"> <li>▶ Topics like assumption of environmental legacies, job creation, local partnerships and skills development for local workers are also interesting aspects of the Project that should be shared with the community</li> </ul>		✓		✓	✓	✓	✓			<ul style="list-style-type: none"> <li>▶ Agnico Eagle confirms having a long-term vision for the Project.</li> <li>▶ Agnico Eagle is committed to responsible and sustainable development.</li> <li>▶ Agnico Eagle is committed to implementing the environmental, social and governance practices of high international standards to which Agnico Eagle is a signatory.</li> </ul>
<b>NOISE AND VIBRATION</b>											
N/A	▶ N/A										▶ N/A



**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>ROAD SHARING AND TRAFFIC</b>											
Road access	<ul style="list-style-type: none"> <li>▶ Interest in knowing if Agnico Eagle will adapt the existing Dobie Road or build a new one to access the mining site</li> </ul>	✓					✓	✓			<ul style="list-style-type: none"> <li>▶ There is no plan to modify or upgrade the Dobie Road as it is not planned to be used for the Project.</li> <li>▶ However, Agnico Eagle could assess the road restoration as a potential support for the community.</li> </ul>
<b>AIR QUALITY AND DUST</b>											
N/A	▶ N/A										▶ N/A
<b>CLOSURE PLAN AND LAND REHABILITATION</b>											
Closure plan	<ul style="list-style-type: none"> <li>▶ The way the closure plan will be updated and guaranteed</li> </ul>	✓							✓	✓	<ul style="list-style-type: none"> <li>▶ Information has been shared for Advanced Exploration with stakeholders.</li> <li>▶ Closure plan submission for the Production Phase is planned for 2023.</li> <li>▶ Financial guarantee is mandatory.</li> <li>▶ Agnico Eagle will continue to share information about the closure plan.</li> <li>▶ Agnico Eagle is committed to keeping communities informed and showing transparency.</li> </ul>



**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>CITIZENS AROUND PROJECT (PUBLIC INFORMATION SESSION)</b>											
<b>LAND SHARING AND USE</b>											
Lake access	<ul style="list-style-type: none"> <li>▶ When is Agnico Eagle planning on moving the Beaverhouse lake boat launch</li> </ul>	✓			✓		✓	✓			<ul style="list-style-type: none"> <li>▶ The boat launch does not need to be moved until the construction / production phase for the mine.</li> <li>▶ Agnico Eagle could potentially relocate the boat launch along the south shore of the lake.</li> <li>▶ However, Agnico Eagle will hold a workshop to gather suggestions with local users.</li> <li>▶ Agnico Eagle will assess the suggestions to confirm their feasibility and chose the practical option that would meet the needs of most users.</li> </ul>
Tailing storage	<ul style="list-style-type: none"> <li>▶ Potential location of tailings ponds</li> </ul>	✓					✓	✓			<ul style="list-style-type: none"> <li>▶ Tailing storage will be on site.</li> <li>▶ Agnico Eagle is looking to have dry stacks (dry tailings) rather than ponds.</li> </ul>
	<ul style="list-style-type: none"> <li>▶ Rock’s acidity potential</li> </ul>	✓					✓	✓			<ul style="list-style-type: none"> <li>▶ Current information showed low risk, but further assessment will be conducted during ongoing environmental and engineering studies.</li> </ul>





**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
Project's footprint	▶ Planned location to process the ore	✓					✓	✓			▶ The ore will be processed on site, as Agnico Eagle intends to build a processing plant (mill).
Energy sources	▶ Amount of power and energy required to operate the Project and sources	✓					✓	✓			<ul style="list-style-type: none"> <li>▶ At full production, consumption will be around 30-35 megawatts (MW) per year.</li> <li>▶ Discussions have begun with local suppliers and producers to make sure Agnico Eagle will have enough power.</li> <li>▶ Full production will take time though, which means Agnico Eagle will only need around 5-10 MW per year for the mine development.</li> <li>▶ Agnico Eagle intends to draw power from the regional electric grid.</li> </ul>
<b>WILDLIFE</b>											
N/A	▶ N/A										▶ N/A
<b>FISH AND FISH HABITAT</b>											
Offsetting plan	▶ On site intentions regarding offsetting	✓			✓		✓	✓	✓	✓	▶ The offsetting plan is not ready yet, but Agnico Eagle will look for local opportunities, pending regulatory requirements.



**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>COMMUNITY ENGAGEMENT</b>											
Indigenous Nations	<ul style="list-style-type: none"> <li>▶ Engagement activities conducted with Indigenous Nations</li> </ul>	✓			✓	✓	✓	✓	✓	✓	<ul style="list-style-type: none"> <li>▶ Agnico Eagle currently engages with five Indigenous Nations, initially identified by the provincial government.</li> </ul>
Indigenous Knowledge Study	<ul style="list-style-type: none"> <li>▶ Process to include Indigenous and traditional knowledge studies into the Project design</li> </ul>	✓			✓						<ul style="list-style-type: none"> <li>▶ Agnico Eagle has already engaged with Indigenous Nations on this topic and will continue to do so.</li> <li>▶ The proposed approach is intended to be collaborative to promote meaningful, respectful, and accurate inclusion of Indigenous knowledge in the Impact Assessment.</li> </ul>



**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
Information sharing	<ul style="list-style-type: none"> <li>Subscription to the Upper Beaver project communication list</li> </ul>	✓			✓	✓	✓	✓	✓	✓	<ul style="list-style-type: none"> <li>Agnico Eagle has invited community members to subscribe to the Upper Beaver project distribution list through the project’s website.</li> <li>This list allows stakeholders to be notified of the latest news and events regarding the project, such as upcoming consultation opportunities.</li> <li>The presentation and the Meeting Report of the meeting have been published on the project’s website.</li> </ul>
<b>WATER MANAGEMENT</b>											
Water levels	<ul style="list-style-type: none"> <li>Possible impacts of the Project in general on groundwater</li> </ul>	✓			✓		✓	✓			<ul style="list-style-type: none"> <li>Current information shows there will not be significant impact on groundwater levels.</li> <li>Further assessment will be conducted.</li> <li>Measures will be taken to ensure the dewatering plan meets regulatory approval.</li> <li>According to current hydrology information, the Project should not affect local water levels.</li> </ul>
	<ul style="list-style-type: none"> <li>Possible impacts of the Misema River water flow with the diversion</li> </ul>	✓			✓		✓	✓	✓		



**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>SOCIOECONOMIC IMPACTS</b>											
Employment	<ul style="list-style-type: none"> <li>Possibility of current Agnico Eagle’s employees to be transferred to the Upper Beaver project</li> </ul>	✓					✓	✓			<ul style="list-style-type: none"> <li>This is part of Agnico Eagle’s employee policies and practices, and will likely to be possible, especially for people living in the area.</li> </ul>
Socioeconomic impacts	<ul style="list-style-type: none"> <li>Examples of possible benefits for local First Nations, besides jobs</li> </ul>	✓					✓	✓			<ul style="list-style-type: none"> <li>The Upper Beaver project will generate new business opportunities for local suppliers and Indigenous partners.</li> <li>Agnico Eagle would like to participate in projects that benefit the communities.</li> <li>Environmental monitoring activities are being conducted in collaboration with Indigenous partners.</li> <li>Cultural awareness and training opportunities are also good examples of benefits for local Indigenous Nations.</li> </ul>
<b>NOISE AND VIBRATION</b>											
N/A	<ul style="list-style-type: none"> <li>N/A</li> </ul>										<ul style="list-style-type: none"> <li>N/A</li> </ul>



**APPENDIX A: COMMUNITY INPUT AND OUTCOMES – STAKEHOLDERS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
ROAD SHARING AND TRAFFIC											
N/A	▶ N/A										▶ N/A
AIR QUALITY AND DUST											
N/A	▶ N/A										▶ N/A
CLOSURE PLAN AND LAND REHABILITATION											
N/A	▶ N/A										▶ N/A



## **APPENDIX B**

### **COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

Responses provided and key issues have been distinguished per Project’s phases, based on the information available to date. Distinction for potential impact per Project’s components will be made within the Impact Assessment study and engagement activities.

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>BEAVERHOUSE FIRST NATION</b>											
<b>LAND SHARING AND USE</b>											
Access to boat launch	▶ Need to preserve access for boat launching on the west side of Beaverhouse Lake.			✓		✓	✓	✓	✓	✓	▶ Agnico Eagle committed to maintaining an access to Beaverhouse Lake.
Traditional trail	▶ Discuss traditional trails in the project area.		✓			✓	✓				▶ Agnico Eagle will investigate this matter further and have discussion regarding its location.
Sites of interest	▶ Concerns of having sensitive sites in the project footprint and in the project area.										<ul style="list-style-type: none"> <li>▶ Agnico Eagle has agreed to collaborate in the Indigenous Knowledge Study.</li> <li>▶ Information will be considered in the Impact Assessment.</li> <li>▶ Agnico Eagle will be working in collaboration with Indigenous Nations in developing mitigation measures.</li> </ul>



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
	<ul style="list-style-type: none"> <li>Concerns of cultural, heritage and traditional sites near York Lake, Ava Lake and existing mine.</li> </ul>			✓		✓	✓	✓	✓	✓	<ul style="list-style-type: none"> <li>Agnico Eagle will be working in collaboration with Indigenous Nations to develop mitigation measures.</li> </ul>
Cottages	<ul style="list-style-type: none"> <li>BHFN has not received information regarding the acquisition of cottages in the area.</li> </ul>			✓		✓	✓	✓			<ul style="list-style-type: none"> <li>Agnico Eagle will share further information with BHFN.</li> </ul>
Beaverhouse Lake access	<ul style="list-style-type: none"> <li>Establish a new exit that would shorten the time to access the frozen part of Beaverhouse Lake.</li> </ul>		✓				✓	✓			<ul style="list-style-type: none"> <li>Agnico Eagle will investigate this matter further.</li> </ul>
	<ul style="list-style-type: none"> <li>Maintain access to Beaverhouse Lake.</li> </ul>			✓	✓	✓	✓	✓	✓	✓	<ul style="list-style-type: none"> <li>Some areas at the mine would need to be restricted for safety purposes, but an access to Beaverhouse Lake will remain.</li> </ul>
Project's design	<ul style="list-style-type: none"> <li>Concern regarding the preferred project scenario involving the dewatering / diversion of York Lake.</li> </ul>			✓							<ul style="list-style-type: none"> <li>Agnico Eagle has provided the community with further details on the preferred project scenario during a community meeting.</li> <li>Agnico Eagle is willing to provide further information if needed.</li> </ul>
	<ul style="list-style-type: none"> <li>Request for further information to better understand the rationale for the preferred project scenario.</li> </ul>		✓								





**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT	
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT		
<b>WILDLIFE</b>												
Moose	▶ Interest in reviewing the aerial moose survey report.		✓		✓							▶ Agnico Eagle will share results of the moose survey with Indigenous Nations.
Hunting	▶ Request to maintain access to the area for hunting.			✓		✓	✓	✓	✓	✓		▶ Agnico Eagle will be working in collaboration with Indigenous Nations to develop mitigation measures. ▶ Agnico Eagle will be working with Indigenous Nations to discuss any imposed hunting limitations or restrictions on BHFN traditional land.
<b>FISH AND FISH HABITAT</b>												
Fish habitat	▶ Potential impacts on spawning beds, close to the boat launch of the Beaverhouse Lake.			✓		✓						▶ There is no plan for development in this area. No other impacts are expected.
	▶ Consider information from community members on the impacts to fish habitat.		✓			✓						▶ Agnico Eagle would like to collaborate with local Indigenous Nations to collect information in support of the Impact Assessment process. ▶ Agnico Eagle agrees on the importance of fish habitat.



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
	<ul style="list-style-type: none"> <li>Potential impacts to traditional fishing practices in the area</li> </ul>			✓			✓	✓	✓	✓	<ul style="list-style-type: none"> <li>Agnico Eagle will work with BHFN to ensure traditional fishing practices are protected within its control, and to develop mitigation measures.</li> </ul>
<b>COMMUNITY ENGAGEMENT</b>											
Engagement activities with community members	<ul style="list-style-type: none"> <li>Concern with how Agnico Eagle will reach out to community members considering the pandemic situation.</li> </ul>	✓			✓						<ul style="list-style-type: none"> <li>Agnico Eagle will get in touch with local Indigenous Nations to identify community specific ways to reach out to their community members considering the pandemic situation.</li> </ul>
Baseline studies and Impact Assessment process	<ul style="list-style-type: none"> <li>Interest in better understanding the sequence of activities and opportunities for the community to benefit from actively participating in the process.</li> </ul>		✓		✓						<ul style="list-style-type: none"> <li>Agnico Eagle will support the community to further their understanding of the Impact Assessment Process.</li> <li>Agnico Eagle will make efforts to adjust to the capacity of Indigenous Nations to the extent reasonable.</li> </ul>



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>WATER MANAGEMENT</b>											
Water quality	▶ Potential impacts on water quality and current information from water quality monitoring			✓		✓	✓	✓			▶ Agnico Eagle is currently getting prepared, with BHFN representatives collaboration, to hold an engagement activity with community members regarding water management, quality and monitoring practices
Water project	▶ Dewatering of York Lake and diversion of Misema River			✓			✓	✓			▶ Agnico Eagle will work with BHFN to ensure traditional fishing practices are protected within its control, and to develop mitigation measures.
<b>SOCIOECONOMIC IMPACT</b>											
Racism	▶ Cultural awareness training is required for all employees and should be provided annually.		✓			✓	✓	✓			▶ Agnico Eagle is committed to developing cultural awareness training with Indigenous Nations. ▶ Agnico Eagle will provide the cultural awareness training to all new employee in a reasonable delay and refresh learned knowledge on a regular basis.
<b>NOISE AND VIBRATION</b>											
N/A	N/A										N/A



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>AIR QUALITY AND DUST</b>											
N/A	N/A										N/A
<b>CLOSURE PLAN AND LAND REHABILITATION</b>											
Rehabilitation	▶ Interest in progressive rehabilitation process.	✓						✓	✓	✓	▶ Agnico Eagle will involve local Indigenous Nations at different stages of the closure planning process.
<b>ROAD SHARING AND TRAFFIC</b>											
N/A	N/A										N/A
<b>MATACHEWAN FIRST NATION</b>											
<b>LAND SHARING AND USE</b>											
Footprint	▶ The size of a “small” open pit.	✓					✓	✓			<ul style="list-style-type: none"> <li>▶ Required information has been shared with the community.</li> <li>▶ The expected size should be around 300 metres, which is similar to the size of the McBean Pit located in Dobie.</li> <li>▶ Size of the pit is limited to this area due to stability issues and to constrain the project footprint.</li> </ul>



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT	
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT		
Potential aggregate pit on Crown land	<ul style="list-style-type: none"> <li>Concern about the possibility of using a second aggregate pit, considering there is already adequate material at two existing locations close to the project.</li> </ul>			✓			✓					<ul style="list-style-type: none"> <li>Agnico Eagle will take into account these concerns during the assessment of alternatives.</li> <li>Agnico Eagle will share justification if a new aggregate pit is selected as the preferred alternative.</li> <li>Agnico Eagle confirms that access to Crown land will remain during test pit activities.</li> </ul>
Cottages	<ul style="list-style-type: none"> <li>Interest in understanding which cottages have been acquired by Agnico Eagle so that the community can evaluate the potential impacts from their perspective.</li> </ul>	✓			✓	✓						<ul style="list-style-type: none"> <li>Agnico Eagle will share information with the community.</li> </ul>
<b>WILDLIFE</b>												
Moose	<ul style="list-style-type: none"> <li>Interest in reviewing the aerial moose survey report.</li> </ul>		✓		✓							<ul style="list-style-type: none"> <li>Agnico Eagle will share results of the moose survey with Indigenous Nations.</li> </ul>
<b>FISH AND FISH HABITAT</b>												
N/A	N/A											N/A



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>COMMUNITY ENGAGEMENT</b>											
Engagement activities with community members	<ul style="list-style-type: none"> <li>▶ Concern with how Agnico Eagle will reach out to community members considering the pandemic situation.</li> </ul>	✓			✓						<ul style="list-style-type: none"> <li>▶ Agnico Eagle will get in touch with local Indigenous Nations to identify community specific ways to reach out to their community members considering the pandemic situation.</li> </ul>
Baseline studies and Impact Assessment process	<ul style="list-style-type: none"> <li>▶ Interest in participating in the country foods baseline study.</li> <li>▶ Concern regarding Agnico Eagle having to work with five Indigenous Nations and the challenges it could bring for collaborative activities such as the baseline studies.</li> </ul>		✓		✓						<ul style="list-style-type: none"> <li>▶ Agnico Eagle is glad the suggested collaborative approach is well received.</li> <li>▶ Agnico Eagle encouraged Indigenous Nations to identify their interest in participating in the baseline studies as soon as possible.</li> <li>▶ Agnico Eagle aims to make participation inclusive; however, the COVID-19 pandemic may result in some limitations.</li> </ul>



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>WATER MANAGEMENT</b>											
Surface water monitoring	▶ Question regarding how 2020 and 2021 water quality results compare.	✓			✓						▶ Agnico Eagle will prepare and provide a summary with year-over-year comparison. ▶ Agnico Eagle identified that since acquiring the property, local water quality has been assessed and there has been no indication of chemical leaching into neighbouring waterbodies.
<b>SOCIOECONOMIC IMPACT</b>											
Business opportunities	▶ Interest in business opportunities related to drilling and test pits.		✓		✓	✓					▶ Agnico Eagle will provide information of the upcoming contract opportunities.
<b>NOISE AND VIBRATION</b>											
N/A	N/A										N/A
<b>AIR QUALITY AND DUST</b>											
N/A	N/A										N/A
<b>CLOSURE PLAN AND LAND REHABILITATION</b>											
N/A	N/A										N/A



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>ROAD SHARING AND TRAFFIC</b>											
N/A	N/A										N/A
<b>MÉTIS NATION OF ONTARIO</b>											
<b>LAND SHARING AND USE</b>											
Footprint	<ul style="list-style-type: none"> <li>Footprint during the production phase.</li> </ul>	✓						✓			<ul style="list-style-type: none"> <li>▶ Agnico Eagle shared information with the participant.</li> <li>▶ Agnico Eagle aims to minimize its footprint as much as possible.</li> </ul>
Potential aggregate pit on Crown land	<ul style="list-style-type: none"> <li>Concern about the accessibility to Crown land during the planned test pits.</li> </ul>			✓	✓						<ul style="list-style-type: none"> <li>▶ Agnico Eagle confirms that it will not affect access to Crown land during test pit activities.</li> </ul>
<b>WILDLIFE</b>											
N/A	N/A										N/A
<b>FISH AND FISH HABITAT</b>											
N/A	N/A										N/A





**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>COMMUNITY ENGAGEMENT</b>											
Baseline studies and Impact Assessment process	<ul style="list-style-type: none"> <li>Concern regarding funding for consultation activities since federal funding can only be granted after the IPD is ruled admissible by the Agency.</li> </ul>			✓	✓						<ul style="list-style-type: none"> <li>Agnico Eagle understands the funding capacity challenges and is interested in working with each Indigenous Nation to determine a mutually agreeable solution to support meaningful engagement.</li> </ul>
	<ul style="list-style-type: none"> <li>Interest in developing Consultation Agreement / Protocols.</li> </ul>		✓		✓						<ul style="list-style-type: none"> <li>Agnico Eagle is open to this approach and willing to have discussions to determine a mutually agreeable path forward that supports meaningful engagement and participation.</li> </ul>
<b>WATER MANAGEMENT</b>											
Surface water monitoring	<ul style="list-style-type: none"> <li>Concern regarding potential arsenic contamination of waterbodies due to bulk sampling and rock storage.</li> </ul>			✓		✓					<ul style="list-style-type: none"> <li>Low risk of arsenic occurrence is expected in waterbodies based on water and rock analysis.</li> </ul>
	<ul style="list-style-type: none"> <li>Question regarding Agnico Eagle’s responsibility in case of impacts caused by previous mining activities such as chemical leaching into neighbouring waterbodies.</li> </ul>	✓				✓					<ul style="list-style-type: none"> <li>Agnico Eagle confirmed its responsibility for any potential impacts from previous mining activities.</li> </ul>



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>SOCIOECONOMIC IMPACT</b>											
N/A	N/A										N/A
<b>NOISE AND VIBRATION</b>											
N/A	N/A										N/A
<b>AIR QUALITY AND DUST</b>											
N/A	N/A										N/A
<b>CLOSURE PLAN AND LAND REHABILITATION</b>											
N/A	N/A										N/A
<b>ROAD SHARING AND TRAFFIC</b>											
N/A	N/A										N/A
<b>TIMISKAMING FIRST NATION</b>											
<b>LAND SHARING AND USE</b>											
Cumulative impacts	<ul style="list-style-type: none"> <li>Concern regarding addressing cumulative impacts in the Impact Assessment, considering that several sites have mining potential in the area.</li> </ul>			✓				✓			<ul style="list-style-type: none"> <li>Agnico Eagle plans to assess cumulative impacts in the Impact Assessment.</li> </ul>



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
Project's footprint	▶ Question regarding the necessity to build a new mill.	✓					✓	✓			<ul style="list-style-type: none"> <li>▶ Agnico Eagle has assessed several options for processing the ore. However, <ul style="list-style-type: none"> <li>◆ Existing mills do not have the capacity to handle the proposed production rates.</li> <li>◆ Existing mills are located too far away.</li> <li>◆ Existing mills may not be capable of processing the ore from the Upper Beaver project, as deposits have unique characteristics / require specific processing methods.</li> </ul> </li> <li>▶ Underground mining operations intend to reuse tailings as part of paste backfill management, which requires the materials to remain on-site.</li> </ul>
WILDLIFE											
Moose	▶ Interest in reviewing the aerial moose survey report.		✓		✓						<ul style="list-style-type: none"> <li>▶ Agnico Eagle will share results of the moose survey with Indigenous Nations.</li> </ul>



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>FISH AND FISH HABITAT</b>											
Fish habitat	<ul style="list-style-type: none"> <li>▶ Potential effect on habitat regarding the draining of the lake.</li> <li>▶ Impact on fish habitat and mitigation measure.</li> </ul>	✓				✓					<ul style="list-style-type: none"> <li>▶ Agnico Eagle would like to collaborate with local Indigenous Nations to collect information in support of the Impact Assessment process.</li> <li>▶ Agnico Eagle agrees on the importance of fish habitat.</li> </ul>
<b>COMMUNITY ENGAGEMENT</b>											
Baseline studies and Impact Assessment process	<ul style="list-style-type: none"> <li>▶ Concern regarding Agnico Eagle having to work with five Indigenous Nations and the challenges it could bring for collaborative activities such as the baseline studies.</li> </ul>			✓	✓						<ul style="list-style-type: none"> <li>▶ Agnico Eagle is glad the suggested collaborative approach is well received.</li> <li>▶ Agnico Eagle encouraged Indigenous Nations to identify their interest in participating in the baseline studies as soon as possible.</li> <li>▶ Agnico Eagle aims to make participation inclusive; however, the COVID-19 pandemic may place some limitations.</li> </ul>



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT	
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT		
	<ul style="list-style-type: none"> <li>Concern regarding funding for consultation activities since federal funding can only be granted after the IPD is ruled admissible by the Agency.</li> </ul>			✓	✓							<ul style="list-style-type: none"> <li>Agnico Eagle understands the funding capacity challenge and is interested in working with each Indigenous Nation to determine a mutually agreeable solution to support meaningful engagement.</li> </ul>
	<ul style="list-style-type: none"> <li>Interest in developing Consultation Agreement / Protocols.</li> </ul>		✓		✓							<ul style="list-style-type: none"> <li>Agnico Eagle is open to this approach and willing to have discussions to determine a mutually agreeable path forward that supports meaningful engagement and participation.</li> </ul>
Indigenous Knowledge (IK) study	<ul style="list-style-type: none"> <li>Concern about the Indigenous Knowledge study approach, whether it will respect Indigenous values and be conducted in an acceptable manner for community members.</li> </ul>			✓	✓							<ul style="list-style-type: none"> <li>Agnico Eagle recognizes the importance and sensitive nature of Indigenous Knowledge studies. The proposed approach is intended to be collaborative to promote meaningful, respectful and accurate inclusion of knowledge in the Impact Assessment.</li> <li>Agnico Eagle supports the preference of Indigenous Nations to undertake these studies directly and/or through the support of their own consultants and will consider funding proposals.</li> </ul>
	<ul style="list-style-type: none"> <li>Concern about Agnico Eagle's accountability towards external partners' approach and the accuracy of the data.</li> </ul>			✓	✓							



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT	
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT		
	<ul style="list-style-type: none"> <li>▶ Question regarding the kind of funding Indigenous Nations could receive, including funding before the beginning of the Impact Assessment.</li> <li>▶ Concern regarding the importance of developing a framework for knowledge weaving within the Indigenous Knowledge study and the challenges it can represent.</li> </ul>	✓			✓							<ul style="list-style-type: none"> <li>▶ Agnico Eagle proposes to work with each Indigenous Nation regarding an approach to ethically and respectfully understand and use their shared information, including approaches to weaving together Indigenous Knowledge and Western science, validation and data use.</li> <li>▶ Agnico Eagle has entrusted a consulting firm to support them in the collaboration approach but remains accountable.</li> </ul>
<b>WATER MANAGEMENT</b>												
Changes to waterbodies	<ul style="list-style-type: none"> <li>▶ The need to pump the lake to maintain its drained state.</li> <li>▶ Need to receive more details on the diversion of the Misema River.</li> </ul>			✓			✓	✓	✓			<ul style="list-style-type: none"> <li>▶ Diversion channels will be established to divert the water from Ava Lake to the Misema River.</li> <li>▶ The preliminary strategy is to install properly designed dykes to make sure that the York Lake area remains dry for mining to safely occur.</li> <li>▶ Agnico Eagle would like to reflood the pit after closure of the mine to create a bigger lake.</li> </ul>



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>SOCIOECONOMIC IMPACT</b>											
Training opportunities	<ul style="list-style-type: none"> <li>Whether the community members getting training would be ready when the job opportunities come up.</li> </ul>			✓				✓			<ul style="list-style-type: none"> <li>Agnico Eagle is confident communities will have enough time.</li> <li>As a first step, communities have been requested to identify community needs and priorities.</li> </ul>
Racism	<ul style="list-style-type: none"> <li>Concerns regarding social impacts, such as difficulties faced when applying for jobs in mines and experiencing racism from other employees.</li> </ul>			✓				✓			<ul style="list-style-type: none"> <li>Agnico Eagle confirmed this aspect could be a key point in the socioeconomic and health (well-being) studies, and that the Project is required to complete a Gender-Based Analysis Plus (GBA+) as part of the Impact Assessment.</li> <li>Agnico Eagle has an <a href="#">Indigenous Peoples Engagement Policy</a> as well as a <a href="#">Diversity and Inclusion Policy</a>.</li> <li>Agnico Eagle has provided cultural awareness training to some employees and actively seeks opportunities for continual improvement.</li> </ul>
	<ul style="list-style-type: none"> <li>Racism aspect should be considered in the social baseline study.</li> </ul>		✓		✓					✓	
	<ul style="list-style-type: none"> <li>Having Upper Beaver's employees trained on cultural and gender awareness.</li> </ul>		✓					✓			
<b>NOISE AND VIBRATION</b>											
N/A	N/A										N/A



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT	
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT		
<b>AIR QUALITY AND DUST</b>												
Parameters to be assessed	<ul style="list-style-type: none"> <li>▶ Interest about air quality parameters and the assessment of the impact on wildlife.</li> </ul>	✓			✓							<ul style="list-style-type: none"> <li>▶ Agnico Eagle, as part of the engagement plan, will consider comments received from Indigenous Nations.</li> <li>▶ Agnico Eagle will aim to understand the comments received, consider how the feedback can be considered in the Project planning and share back how the feedback was considered as well as what changes were made to the Project in response to the feedback, where applicable. Where feedback cannot be included, reasoning will be provided.</li> </ul>
	<ul style="list-style-type: none"> <li>▶ Question about the possibility to go beyond legal standards if the community shares concerns on certain impacts, such as air quality.</li> </ul>	✓					✓	✓				
<b>CLOSURE PLAN AND LAND REHABILITATION</b>												
N/A	N/A											N/A
<b>ROAD SHARING AND TRAFFIC</b>												
N/A	N/A											N/A





**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>WAHGOSHIG FIRST NATION</b>											
LAND SHARING AND USE											
Project's design	▶ Request for further information to better understand the rationale for the preferred project scenario.		✓								▶ Agnico Eagle will provide the community with further details on the preferred project scenario.
Sensitive sites mapping	▶ Specific details and locations of sensitive cultural sites would not be shared with Agnico Eagle but buffer zones (polygons) will be identified to support assessment.			✓			✓	✓			▶ Agnico Eagle supports the protection of information regarding sensitive cultural sites and can use buffered areas to support the assessment.
Indigenous Knowledge and Land Use	▶ Maintain and respect the confidentiality of Indigenous Knowledge and Land Use information (cultural sites) and work with WFN to prepare information pertaining to WFN.			✓		✓	✓	✓			▶ Agnico Eagle will work with Indigenous Nations to develop Indigenous Knowledge studies and will validate how information is interpreted and used in the Impact Statement.
<b>WILDLIFE</b>											
Participation in studies	▶ Interest in methodology and participation in wildlife studies related to moose		✓			✓					▶ Agnico Eagle is involving Indigenous Nations and encourage participation in field studies, where possible.





**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
Wildlife	<ul style="list-style-type: none"> <li>▶ Consideration of wildlife in the Upper Beaver Project’s potential mitigation measure.</li> </ul>			✓	✓	✓	✓	✓			<ul style="list-style-type: none"> <li>▶ Agnico Eagle will not permit hunting within the property boundaries and the speed limit on Beaverhouse Road will be set by considering wildlife and health safety (within its control).</li> <li>▶ Wildlife collisions and near misses will be documented / reported.</li> <li>▶ Wildlife will be fully considered during preparation of the Impact Assessment, after which mitigation measures and protection and effects monitoring plan when required, will be discussed with Indigenous Nations.</li> <li>▶ Agnico Eagle encourages participants to share any specific information regarding local wildlife to consider it within the baseline studies.</li> <li>▶ Agnico Eagle is adhering to the principles of Towards Sustainable Mining which include a Biodiversity Conservation Management protocol.</li> </ul>



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
Moose	<ul style="list-style-type: none"> <li>▶ Activities associated with the Project are likely to impact local moose populations.</li> </ul>			✓		✓	✓	✓			<ul style="list-style-type: none"> <li>▶ Agnico Eagle will not permit hunting within the property boundaries and the speed limit on Beaverhouse Road will be set by considering wildlife and health safety (within its control).</li> <li>▶ Wildlife collisions and near misses will be documented / reported.</li> <li>▶ Agnico Eagle will develop a Moose Protection and Effects Monitoring Plan during the Impact Assessment for implementation during the construction and operation phases.</li> <li>▶ Agnico Eagle will similarly develop and implement a Biodiversity Conservation Management Protocol.</li> <li>▶ Agnico Eagle will record observations of moose during advanced exploration, construction and operation phases.</li> </ul> <p><i>*Please note comment has been received through a permit request review rather than during the IPD Engagement Approach.</i></p>



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>FISH AND FISH HABITAT</b>											
Participation in studies	▶ Interest in methodology and participation in wildlife studies related to fish		✓			✓					▶ Agnico Eagle is involving Indigenous Nations and encourage participation in field studies, where possible.
<b>COMMUNITY ENGAGEMENT</b>											
Engagement	▶ Collaboration in engagement planning including maintaining meeting notes, challenges related to communication by email and need for information in French			✓		✓	✓	✓	✓		▶ Agnico Eagle will work in close collaboration with Indigenous Nations on engagement planning ▶ Even if most information is in English, Agnico Eagle will evaluate the possibility to translate key documents in French.
	▶ Need to be involved in the assessment of alternative means to the project			✓		✓					▶ Agnico Eagle will engage with Indigenous Nations regarding the assessment of alternative
Funding	▶ Discuss funding for technical support	✓				✓					▶ Agnico Eagle will engage with Indigenous Nations regarding funding for technical support through the Impact Assessment



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
<b>WATER MANAGEMENT</b>											
Mercury	<ul style="list-style-type: none"> <li>Changes in mercury concentration in the receiver due to project activities, as well as mine effluent and the way it is going to be monitored.</li> </ul>		✓	✓		✓	✓	✓			<ul style="list-style-type: none"> <li>Agnico Eagle identified that it is not expected that mercury will be released in concentrations that exceed the Provincial Water Quality Objectives (PWQO) for protection of aquatic life criteria. Effluent water quality samples will be collected on a weekly basis.</li> <li>Agnico Eagle will use an adequate detection limit.</li> <li>Agnico Eagle will validate if the modelling prediction is correct, and if not, additional mitigation measures may have to be implemented.</li> </ul> <p><i>*Please note comment has been received through a permit request review rather than during the IPD Engagement Approach.</i></p>
<b>SOCIOECONOMIC IMPACT</b>											
N/A	N/A										N/A
<b>NOISE AND VIBRATION</b>											
N/A	N/A										N/A



**APPENDIX B: COMMUNITY INPUT AND OUTCOMES – INDIGENOUS NATIONS**

TOPICS	KEY ISSUES	NATURE OF INTERVENTION			MINING PHASE						RESULTS OF ENGAGEMENT
		QUESTION	SUGGESTION	CONCERN	EXPLORATION / ASSESSMENT	ADVANCED EXPLORATION	CONSTRUCTION	OPERATION	DECOMMISSIONING	ABANDONMENT	
AIR QUALITY AND DUST											
N/A	N/A										N/A
CLOSURE PLAN AND LAND REHABILITATION											
N/A	N/A										N/A
ROAD SHARING AND TRAFFIC											
N/A	N/A										N/A

