Hidden Valley Community Expansion Project: Environmental Report

Final Report

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Sign-off Sheet

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Executive Summary

Enbridge Gas Inc. (Enbridge Gas) is proposing to construct the Hidden Valley Community Expansion Project to provide affordable natural gas to the Town of Huntsville (the Project). The Project will involve the construction of up to approximately 5 kilometers (km) of 2-inch Nominal Pipe Size (NPS) natural gas pipeline to be located primarily along Hidden Valley Road from Highway 60, and along Skyline Drive to Ski Club Road. Other roads to be connected off of Hidden Valley Road and Skyline Drive may include Mount Pleasant Crescent, Slalom Drive, Woodland Court, Lakeview Crescent, Chalet Crescent, and Turner Drive. The Project is proposed to be placed into service Fall 2023.

Enbridge Gas has retained Stantec Consulting Ltd. (Stantec) to undertake an environmental study of the construction and operation of the proposed pipeline. The environmental study will fulfill the requirements of the Ontario Energy Board's (OEB) *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 7th Edition (2016)* (OEB Environmental Guidelines).

Enbridge Gas is also required to obtain additional permits and approvals from federal, provincial, and municipal agencies that have jurisdiction within the Study Area. This ER will serve to support these permit and approval applications.

The route evaluation process was undertaken as per the *Guidelines (2016)*, which identifies the environmental and socio-economic features to take into consideration and the principles to be considered during the route evaluation.

An extensive engagement and consultation program was conducted for the Project with Indigenous communities, and federal and provincial agencies, conservation authorities, municipal personnel and elected officials, utility owners and operators, special interest groups, the general public, and residents and businesses within 1 kilometer (km) of the Study Area were engaged. The engagement and consultation program included development and maintenance of various Project Contact Lists which were used to distribute the required notices, newspaper advertisements, a Virtual Information Session, and provision of feedback to those members of the public who had questions, issues, or concerns or positive feedback about the Project. Enbridge is committed to ongoing engagement and consultation with interested and potentially affected parties through detailed design and construction and will respond to stakeholder concerns throughout the life of the Project.

The potential effects and impacts of the Project on physical, biophysical, and socio-economic features have been assessed for the Project. In the opinion of Stantec, the recommended program of supplemental studies, mitigation, protective, and contingency measures are considered appropriate to protect the features encountered. Monitoring will assess that mitigation and protective measures have been effective in both the short and long term.

The potential cumulative effects of the Project were assessed by considering development that may begin during construction or that may begin sometime in the future. The Study Area boundary was used to assess potential effects of the Project and other developments on environmental and socio-economic features. As such, the cumulative effects assessment determined that, provided through ongoing engagement and consultation, appropriate mitigation and protective measures are implemented, potential cumulative effects will be of low probability and magnitude, short duration (2 to 3 months), and reversible and positive and are, therefore, not anticipated to be significant.

The environmental study investigated data on the physical, biophysical, and socio-economic environment within the Study Area. In the opinion of Stantec, the recommended program of supplemental field studies in spring/summer 2023, mitigation and protective measures, and contingency measures are considered appropriate to protect the features encountered. Monitoring will assess whether mitigation and protective measures were effective in both the short and long term.

With the implementation of the recommendations in the ER, ongoing communication and consultation, and adherence to permit, regulatory, and legislative requirements, potential adverse residual environmental and socio-economic impacts of this Project are not anticipated to be significant.

Abbreviations

AA	Archaeological Assessment
AAFC	Agriculture and Agri-Food Canada
BGS	Below ground surface
CEA	Cumulative effects assessment
CHVI	cultural heritage value or interest
COSSARO	Committee on the Status of Species at Risk in Ontario
DFO	Fisheries and Oceans Canada
EASR	Environmental Activity and Sector Registry
Enbridge Gas	Enbridge Gas Inc.
END	Endangered
EPP	Environmental Protection Plan
ER	Environmental Report
ESA	Endangered Species Act, 2007
ESC	Erosion and Sediment Control
HADD	the harmful alteration, disruption or destruction of fish habitat
HDD	Horizontal Directional Drill
HVA	Highly Vulnerable Aquifer
IPZ	Intake Protection Zone
km	Kilometre(s)
LIO	Land Information Ontario
LTC	Leave to Construct
m	Metre(s)
MBCA	Migratory Birds Convention Act, 1994

MECP	Ministry of the Environment, Conservation and Parks
MENDM	Ministry of Energy, Northern Development and Mines
MMAH	Ministry of Municipal Affairs and Housing
MOE	Ministry of Energy
MTCS	Ministry of Tourism, Culture and Sport
MTO	Ministry of Transportation
NAR	Not at Risk
NDMNRF	Ministry of Northern Development, Mines, Natural Resources and Forestry
NHIC	Natural Heritage Information Centre
NPS	Nominal Pipe Size
OEB	Ontario Energy Board
OGS	Ontario Geological Survey
OHA	Ontario Heritage Act
OPCC	Ontario Pipeline Coordinating Committee
O. Reg.	Ontario Regulation
ORAA	Ontario Reptile and Amphibian Atlas
OWES	Ontario Wetland Evaluation System
PPR	Preliminary Preferred Route
PR	Preferred Route
PTTW	Permit to Take Water
PSW	Provincially Significant Wetland
ROW	Right-of-Way
SAR	Species at Risk
SARB	Species at Risk Branch
SARA	Species at Risk Act

SGRA	Significant Groundwater Recharge Area
SOCC	Species of Conservation Concern
SC	Special Concern
Stantec	Stantec Consulting Ltd.
TC	Transport Canada
THR	Threatened
TSSA	Technical Standards and Safety Authority
WHPA	Wellhead Protection Area
WWR	Water Well Record(s)

1 Introduction

1.1 Project Description

Enbridge Gas Inc. (Enbridge Gas) is proposing to construct the Hidden Valley Community Expansion Project to supply the community in the Town of Huntsville with affordable natural gas (the "Project"). The Project will involve the construction of up to approximately 5 kilometers (km) of 2-inch Nominal Pipe Size (NPS) natural gas pipeline to be located primarily along Hidden Valley Road from Highway 60, and along Skyline Drive to Ski Club Road. Other roads to be connected off of Hidden Valley Road and Skyline Drive may include Mount Pleasant Crescent, Slalom Drive, Woodland Court, Lakeview Crescent, Chalet Crescent, and Turner Drive.

Enbridge Gas has retained Stantec Consulting Ltd. (Stantec) to undertake an environmental study of the construction and operation of the proposed pipeline. The environmental study will fulfill the requirements of the Ontario Energy Board's (OEB) *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 7th Edition (2016)* (OEB Environmental Guidelines).

1.2 Environmental Study

1.2.1 Objectives

A multidisciplinary team of environmental planners and scientists from Stantec conducted the environmental study. Enbridge Gas provided environmental support and engineering expertise throughout the study.

The environmental study was completed in accordance with the OEB *Environmental Guidelines* (2016), as well as relevant federal and provincial environmental guidelines and regulations.

The principal objective of the environmental study was to outline various environmental mitigation and protection measures for the construction and operation of the project while meeting the intent of the OEB *Environmental Guidelines* (2016). To meet this objective, the environmental study was prepared to:

- Identify a Preferred Route (PR) that reduces potential environmental impacts.
- Complete a detailed review of environmental features along the PR and assess the potential environmental impacts of the project on these features.
- Establish mitigation and protective measures that may be used to reduce or eliminate potential environmental impacts of the project.
- Undertake a route evaluation process.

- Develop an engagement and consultation program to receive input from interested and potentially affected parties.
- Identify any necessary supplemental studies, monitoring, and contingency plans.

1.2.2 Process

The environmental study was divided into two main phases.

Phase I: Identification and Consultation on a Preliminary Preferred Route

The environmental study began by identifying the Preliminary Preferred Route, herein "PPR". The PPR was determined by Enbridge Gas based on their engineering considerations, as well as consideration of environmental constraints as identified by Stantec.

The following entities were notified of the Project:

- Indigenous communities
- Federal and provincial agencies and authorities
- Municipal personnel
- Special interest groups
- Third party utilities
- Directly affected landowners
- Residents and businesses in proximity to the PPR

Feedback on the PPR was sought from these entities through newspaper notices, letters, and a Virtual Information Session held from June 20, 2022, to July 2, 2022.

Concurrent with engagement and consultation, environmental, and socio-economic features in a Study Area surrounding the route were mapped and characterized using relevant published literature, maps, and digital data. Geographically based environmental features were incorporated onto a series of digital base maps. Discussions with relevant agencies provided information for compiling the existing conditions inventory and mapping.

Phase II: Confirmation of the Preferred Route; Environmental Report

Based on feedback received during the engagement and consultation program, the PPR was confirmed to be the Preferred Route, herein "PR". The final phase of the study involved determining potential environmental and socio-economic impacts and cumulative effects that would result from the Project and developing mitigation and protective measures, supplemental studies, monitoring, and contingency plans to reduce or avoid potential impacts.

The environmental study concluded with the preparation of this Environmental Report (ER) as well as Environmental Alignment Sheets to identify site-specific mitigation and protective measures to be implemented during construction (see Appendix G).

1.2.3 The Environmental Report

The environmental study has relied on technically sound and consistently applied procedures that are replicable and transparent. The ER, which documents the environmental study, will form the foundation for future environmental management activities related to the Project.

The ER is organized into the following sections:

1. Introduction: provides a description of the Project and the environmental study
2. Engagement and Consultation program: provides a description of consultation
3. Existing Conditions: describes the existing conditions within the Study Area for the PR
4. Route Evaluation and Selection: provides an overview of the pipeline route evaluation and selection process
5. Potential Impacts, Mitigation, and Protective Measures: predicts potential effects and impacts the Project may have upon the existing conditions; describes, the mitigation and protective measures to eliminate or reduce the potential effects and impacts of the Project on physical, biophysical, and socio-economic features that have been assessed in the Study Area; recommends supplemental studies where necessary and predicts the net impacts anticipated for the Project
6. Cumulative Effects Assessment: provides an analysis of potential cumulative effects associated with the proposed Project
7. Monitoring and Contingency Plans: describes monitoring and contingency plans to address potential environmental impacts of the proposed Project
8. Conclusion: provides a discussion and consideration of the potential environmental impacts associated with the proposed Project

The ER also includes references and appendices for documentation.

1.2.4 The OEB Regulatory Process

Once complete, the ER is circulated directly to Indigenous communities, affected municipalities, conservation authorities, and to the Ontario Pipeline Coordinating Committee (OPCC) for their review and comment. The OPCC is an inter-ministerial committee that includes provincial government ministries, boards, and authorities with potential interest in the construction and operation of hydrocarbon transmission and storage facilities. The ER is also circulated directly to interested parties and is made available on the Enbridge Gas Project webpage for the public and landowners to review. The ER will accompany a future Enbridge Gas 'Leave-to-Construct' application to the OEB for the proposed Project.

Upon receiving the application, the OEB will hold a public hearing. Communication about the hearing will include notices in local newspapers and letters to directly affected landowners, both of which will outline how the general public and landowners can get involved with the hearing process. If, after the public hearing, the OEB finds the Project is in the public interest, it will approve construction of the Project. The OEB typically attaches conditions to approved projects. Enbridge Gas must comply with these conditions at all stages of the Project, including during construction and site restoration.

1.2.5 Additional Regulatory Processes

Enbridge Gas may also be required to obtain additional environmental permits, approvals, and notifications from federal, provincial, and municipal agencies as outlined in **Table 1.1** below. This ER will serve to support these permit and approval applications and notifications, if applicable.

Table 1.1: Summary of Potential Environmental Permit and Approval Requirements

Jurisdiction	Permit/Approval	Administering Agency	Description
Federal Permits and Approvals	Clearing of vegetation in accordance with the *Migratory Bird Convention Act, 1994* (MBCA)	Environment and Climate Change Canada (ECCC)	ECCC does not require a permit to be issued for vegetation clearing, however, precautions need to be taken so that no breeding birds or their nests are harmed or destroyed during the bird nesting season as a result of construction of the Project. Nest sweeps will be required at a maximum of 7 days prior to vegetation removal during the bird nesting season, (e.g., April 1 to August 31), as per the MBCA.
Provincial Permits and Approvals	Permit to Take Water (PTTW) or Environmental Activity and Sector Registry (EASR) (surface and groundwater) under the *Ontario Water Resources Act* (1990)	Ministry of the Environment, Conservation and Parks (MECP)	Under Ontario Regulation (O. Reg.) 64/16 and O. Reg. 63/16, the MECP requires a PTTW for dewatering in excess of 400,000 L/day, and an EASR for dewatering between 50,000 and 400,000 L/day. This can include trench dewatering and taking water for hydrostatic testing from a pond, lake, etc. There are some exceptions for surface water takings where active or passive surface water diversions occur such that all water taken is returned to within another portion of the same surface water feature.
	Permitting or registration under the *Endangered Species Act* (ESA) (2007)	MECP	An ESA permit or Registration is required for activities that could impact species protected under the ESA. Engagement and consultation will occur with the MECP to determine ESA permitting requirements. As indicated in Section 9 (1) a of the ESA (2007), “No person shall kill, harm, harass, capture or take a living member of a species that is listed on the Species at Risk in Ontario List as an extirpated, endangered or threatened species.” As indicated in Section 17 (1), “the Minister may issue a permit to a person that, with respect to a species specified in the permit that is listed on the Species at Risk in Ontario List as an extirpated, endangered or threatened species, authorizes the person to engage in an activity specified in the permit that would otherwise be prohibited by Section 9 or 10.”

Jurisdiction	Permit/Approval	Administering Agency	Description
	Archaeological clearance under the *Ontario Heritage Act* (OHA)	Ministry of Tourism, Culture and Sport (MTCS)	An Archaeological Assessment (AA) is required to identify areas of archaeological potential prior to any ground disturbances and/ or site alterations. The completed AA reports are forwarded to the MTCS for review.
	Review of Built Heritage and Cultural Heritage Landscapes under the OHA	MTCS	The MTCS *Criteria for Evaluating Potential Built Heritage Resources and Cultural Heritage Landscapes* (Checklist) was completed to determine the presence or absence of heritage resources in the Study Area and identify if further work is required. The Checklist determined the potential for cultural heritage resources within a defined Study Area and a Heritage Memo was recommended.
Municipal Permits/Approvals	Noise By-law Exemption Permit	Town of Huntsville	Required if construction activities will occur during the prohibited times outlined in the Town of Huntsville Noise By-Law No. 2018-155.

2 Route Evaluation and Selection

2.1 The Process

The route evaluation and selection process was undertaken in accordance with the OEB *Environmental Guidelines* (2016). The OEB *Environmental Guideline*s (2016) identify the environmental and socio-economic features to take into consideration and the routing principles to be considered. As noted in the Project Description (Section 1.1), Enbridge Gas identified a PPR (Preliminary Preferred Route) and no alternative routes were proposed.

2.2 Confirmation of the Pipeline Route

Input on the PPR was sought through engagement and consultation (see Section 3). Comments received were generally positive, with concerns largely focused on potential noise and the presence of shallow bedrock. Concerns included questioning the need for natural gas in the area. As no comments were received that would cause a change in the PPR, it was confirmed as the PR (Preferred Route) (Figure A-2, Appendix A).

The PR is currently illustrated in a general location on figures presented as part of the environmental study and ER. The PR has been developed for purposes of the study and does not represent the final Project scope and/or design that will provide access to natural gas to end-use customers. Enbridge Gas will undertake detailed design to determine the final location of the running line, temporary land use requirements, and road crossing method. It is understood that Enbridge Gas will consider the above advice during detailed design as well as the other recommendations made in the ER. Stantec reviewed comments from the engagement and consultation program, aerial mapping along the PR, and provided advice on environmental constraints. Detailed design will also be influenced by supplemental studies and site-specific requests from landowners and agencies.

3 Engagement and Consultation Program

3.1 Objectives

Consultation is an important component of the OEB *Environmental Guidelines* (2016). As noted by the OEB (2016), consultation is the process of identifying interested and potentially affected parties and informing them about the Project, soliciting information about their values and local environmental and socio-economic circumstances, and receiving input into key Project decisions before those decisions are finalized.

Stantec believes that community involvement and consultation is a critical and fundamental component of this environmental study, and that Indigenous community participation is essential to the Project. We also recognize that each potentially affected Indigenous community has unique conditions and needs and that the process followed may not satisfy the “duty to consult” component from an Indigenous community’s perspective. To demonstrate that we respect this view, we will use the term “engagement” throughout the remainder of this Report when we refer to seeking input from Indigenous communities.

The engagement and consultation program for the Project included the following objectives:

- Identify rights-holders, interested, and potentially affected parties early in the process
- Understand potentially impacted Aboriginal or treaty rights associated with the proposed Project
- Inform and educate interested parties about the nature of the Project, potential impacts, proposed mitigation measures, and how to participate in the engagement and consultation program
- Provide a forum for the identification of issues
- Identify how input will be used in the planning stages of the Project
- Summarize issues for resolution, and resolve as many issues as feasible
- Revise the program to meet the needs of those being consulted, as feasible
- Develop a framework for ongoing communication and engagement during the construction and operation phases of the Project

An engagement and consultation program was undertaken for the Project, including development and maintenance of an Indigenous groups and stakeholder Contact List, which was used to distribute the required notices, newspaper advertisements, agency meetings, one Virtual Information Session, and provision of feedback to those who had

questions, issues, or concerns or positive feedback about the Project. The communication and consultation activities are described in Sections 3.2 -3.4 below.

3.2 Identifying Interested and Potentially Affected Parties

As part of the engagement and consultation process, Indigenous and stakeholder Contact Lists (including Agency, Municipal, and Interest Groups, Third-Party Utility Owners/Operators, and directly impacted and surrounding landowners), were developed.

3.2.1 Identifying Indigenous Communities

Engagement with Indigenous communities was guided by the OEB *Environmental Guidelines* (2016), as noted above, but also by the Enbridge's Indigenous Peoples Policy.

Indigenous engagement commenced with the submission of a Project description to the Ministry of Energy (MOE), formerly the Ministry of Energy, Northern Development and Mines (MENDM).[1] This submission to the MOE provided details on the Project location and sought to determine the requirements of the duty to consult. Potentially impacted Indigenous communities were identified by the MOE in a Letter of Delegation dated April 13, 2022. See Appendix B1.

The Letter of Delegation confirmed that the MOE would be delegating the procedural aspects of engagement and consultation in respect to the Project and that, based on the Crown's assessment, the following Indigenous communities should be consulted:

- Alderville First Nation
- Beausoleil First Nation (Christian Island)
- Curve Lake First Nation
- Chippewas of Georgina Island
- Chippewas of Rama First Nation
- Hiawatha First Nation
- Huron-Wendat Nation[2]
- Mississaugas of Scugog Island First Nation

[1] On June 18, 2021, the Ontario government implemented changes to several ministries. The Ministry of Energy will continue to handle matters pertaining to delegation of Duty to Consult, while the rest of the MENDM has been combined with the former Ministry of Natural Resources and Forestry to become the Ministry of Northern Development, Mines, Natural Resources and Forestry.
[2] MOE Indicated that Huron-Wendant interests are specific to archaeological resources.

3.2.2 Identifying Interested and Potentially Affected Parties

Identification of interested and potentially affected parties was undertaken using a variety of sources, including the OEB's OPCC Members List, the MECP's Environmental Assessment Government Review Team Master Distribution List, and the experience of Enbridge Gas and Stantec.

The parties listed below were among those considered when developing the initial stakeholder Contact Lists:

- Federal and provincial agencies and authorities
- Municipal personnel
- Special interest groups and third-party utility owners/operators

As the environmental study progressed, the initial Contact Lists evolved, and updates were made in response to changes in personnel, correspondence, and feedback gathered from the Notice of Study Commencement. Updates to the Contact Lists also included adding directly impacted or surrounding landowners who had received the Notice of Study Commencement and Virtual Information Session and who had contacted the Project Team. The Project Indigenous and stakeholder Contacts Lists are provided in Appendix B2.

3.3 Communication Methods

3.3.1 Newspaper Notices

A newspaper Notice of Study Commencement and Virtual Information Session was published on June 9, 2022, 2022, in three (3) local newspapers (Bracebridge Examiner, Gravenhurst Banner and Huntsville Forester).

The Notice introduced and described the Project, provided a map of the PR, noted the format and dates of the Virtual Information Session, and listed Project contact information.

Copies of newspaper notices are provided in Appendix B3.

3.3.2 Letters and Emails

3.3.2.1 Notice of Study Commencement and Virtual Information Session

Letters were sent via email to all parties identified on the Indigenous Contact List on June 3, 2022. Parties identified on the OPCC and Agency/Municipal Contact Lists received letters via email on June 3, 2022 to provide information on the Project and on the Virtual Information Session. Letters were mailed to landowners located within a

minimum of 1 km of the PR via Canada Post regular mail on June 8, 2022. Appended to these letters and emails was a map of the Study Area and PPR.

Generic copies of the letters noted above are included as Appendix B4.

3.3.3 Project Webpage

Information on the Project, the OEB regulatory process, environmental study process, and Enbridge Gas' commitment to the environment was provided on the two webpages created for the Project:

The first webpage, referred to in this ER as the Virtual Information Session webpage, was developed using the ArcGIS StoryMaps platform (Hidden Valley Community Expansion Project (arcgis.com)) to host the Virtual Information Session presentation. This webpage contained a "Resources" tab with a link to a downloadable version of the presentation slides, the exit questionnaire, and the presentation voiceover script.

A second webpage was developed on the Enbridge Gas website (https://www.enbridgegas.com/about-enbridge-gas/projects/hidden-valley) and was designed to provide information on the Project and a link to the Virtual Information Session. Once the Virtual Information Session was complete, copies of the presentation slides, the exit questionnaire and the presentation voiceover script were made available. Upon completion of this ER, it will be posted on the Enbridge Gas website.

The Project webpages were communicated to interested and potentially affected parties in the newspaper notice, letters, emails, and Virtual Information Session presentation.

3.3.4 Virtual Information Session – Presentation Slides, Interactive Map and Exit Questionnaire

Presentation slides were developed for the Virtual Information Session. The presentation slides provided information on the Project, the OEB regulatory process, environmental study process, the PPR, anticipated environmental and socio-economic impacts and mitigation, and next steps. A voiceover recording was paired with the presentation slides.

Following the slideshow presentation, a link to an exit questionnaire and an interactive map were provided. A downloadable version of the presentation slides, script, and the exit questionnaire were provided in the "Resources" tab on the Virtual Information Session Project webpage (as described below). The exit questionnaire requested feedback on potential impacts, important features along the PPR, and the content of the Virtual Information Session. The interactive map allowed attendees to view the PPR and Study Area on a web-based map. A search function was made available on the interactive map to locate a specific address, and to review natural environment map layers such as waterbodies, wetlands, and wooded areas.

Copies of the first Virtual Information Session presentation slides, presentation script, and exit questionnaire are provided in Appendix B5. Copies of completed questionnaires and Stantec's response to completed questionaries are provided in Appendix B6.

3.4 Engagement and Consultation Events

3.4.1 Meetings

Meetings regarding the Project have or may occur, if required or requested, between Enbridge Gas and Indigenous communities, lower/upper-tier municipalities, key stakeholders, third-party utilities owners and operators, and directly impacted and surrounding landowners, and will continue as the Project progresses towards detailed design and construction.

3.4.2 Virtual Information Session

As a result of the health risks associated with in-person gatherings and physical distancing requirements set out by the Province of Ontario due to COVID-19, a Virtual Information Session was hosted online. The Virtual Information Session was accessible from June 20, 2022 to July 4, 2022. This two-week period was selected to allow agencies, Indigenous communities, landowners, residents, and other stakeholders ample opportunity to review the Project information and provide input.

A Project email address and phone number were provided in the Virtual Information Session for attendees to ask questions and leave comments. The Virtual Information Session received 195 number of visits to the ArcGIS StoryMaps webpage, with 48 visits to the recorded presentation; of those that visited the webpage, 65 were from Ontario. As of July 19, 2022, following the Virtual Information Session, 18 questionnaires were submitted via either the Project email address or through the questionnaire link in the presentation.

Redacted copies of the completed exit questionnaires are included in Appendix B5.

3.5 Input Received

The engagement and consultation program allowed interested or potentially affected parties to provide input into the Project. Input was evaluated and where applicable, integrated into the ER and Project. Comment-response summary tables and a copy of all written comments and responses is provided in Appendix B6.

3.5.1 Indigenous Input

Enbridge Gas is committed to creating processes that support meaningful engagement with potentially affected Indigenous groups. Enbridge Gas works to build an understanding of project related interests, ensure regulatory requirements are met, mitigate, or avoid project-related impacts on Aboriginal interests including treaty rights, and provide mutually beneficial opportunities where possible.

Prior to and throughout the environmental study, Enbridge Gas and Indigenous communities engaged in discussions on the proposed Project via email, virtual meetings, and phone conversations.

As recorded in Appendix B6, engagement and consultation began May 4, 2022, with the Curve Lake First Nation. Upon receiving the notice of commencement and virtual open house letter, in a response letter, dated June 15, 2022, Curve Lake First Nation acknowledged the receipt of correspondence regarding the Hidden Valley Community Expansion Project. The Curve Lake First Nation requested that Enbridge Gas provide:

- a summary statement indicating how the Project will address the areas that are of concern to CLFN: possible environmental impact to the nations drinking water, endangerment to fish and wild game, impact on Aboriginal heritage and cultural values, and to endangered species, lands and savannas.
- an opportunity for CLFN to participate in the Stage 1 AA for the Project. And at least one of the nation’s Cultural Heritage Liaisons be involved in any Stage 2-4 assessments, including test pitting, and/or pedestrian surveys to full excavation.

Curve Lake First Nation also indicated that from an initial scan of the Project area, there may be the presence of burial or archaeological sites in proximity to the Project. Should excavation unearth bones, remains, or other such evidence of a native burial site or any other archaeological findings, CLFN requested they be notified immediately.

Enbridge Gas will continue to meaningfully engage with affected Indigenous communities through phone calls, virtual and in-person meetings, and email communications. During these engagement activities, Enbridge Gas representatives will provide an overview of the Project, respond to questions and concerns, and address any interests or concerns expressed by Indigenous communities to appropriately mitigate any Project-related impacts. Enbridge Gas will continue to work with Indigenous groups following the distribution of the ER to ensure the mitigation measures provided in the ER will adequately address concerns and limit impacts. Discussion on the Project and the ER will also help determine potential impacts on Indigenous interests.

To accurately document Indigenous engagement activities and ensure follow-up, applicable supporting documents are tracked using a database. The Indigenous Consultation Report which includes the comment-response summary table and corresponding comment records, will be submitted to the OEB upon the filing of the Project application.

3.5.2 Public Input

Twenty-four comments were received as of July 19, 2022, in the form of eighteen completed questionaries, four emails, and two telephone conversations regarding the Project. The main areas of comment on the Project include:

- the proximity of the proposed pipeline in relation to landowner properties
- how landowners might be connected to the pipeline
- potential impacts on drainage erosion as the Study Area includes a Ski Resort and consists of hilly roads
- the potential for impacts to the atmosphere from fossil fuels
- questioning the need for the project relative to other energy generation technology

3.5.3 Agency Input

- Eight comments were received as of July 19, 2022, from federal and provincial agencies and considered in the preparation of this ER. A summary of the comments received is provided below.

Federal Agencies

- Transport Canada (TC) indicated that project proponents are required to self-assess if a project: (1) will interact with a federal property and/or waterway by reviewing the Directory of Federal Real Property and (2) will require approval and/or authorization under any Acts administered by TC.
- Impact Assessment Agency Canada (IAAC) provided a Letter of Non-Applicability, stating that the Project is not subject to the Impact Assessment Act.

Provincial Agencies and Authorities

- The MOE provided Enbridge Gas with a Letter of Delegation detailing the Indigenous communities who's Aboriginal and treaty rights may be impacted by the Project.
- The MECP Species at Risk Branch (SARB) provided a guide to preliminary screening to determine whether a permit under the Endangered Species Act will be required.

- The Source Protection Program Branch of the MECP indicated that natural gas pipelines are not identified as a threat to drinking water sources under the Clean Water Act, 2006. MECP also provided information to guide identification and assessment of impacts to drinking water, aquifers, and Intake-Protection Zones.
- NDMNRF confirmed the receipt of a copy of the Notice of Study Commencement. NDMNRF provided information to guide identification and assessment of natural features and resources as required by applicable policies and legislation.

3.5.4 Municipal Input

One comment was received from Town of Huntsville at the time of writing this ER:

- The Town of Huntsville provided confirmation of the receipt of the Notice of Commencement letter.

3.5.5 Interest Group Input and Third-Party Utility Owners/Operators

No comments were received from Interest Groups and Third-Party Utility Owners/Operators as of July 19, 2022.

3.6 Refinements Based on Input

At each stage of the engagement and consultation program, input received was compiled, reviewed, and incorporated into the environmental study process. Responses were provided, as applicable, to questions and comments received. No comments or concerns were received to cause a change in the Project and preferred route, and no refinements were required.

Enbridge Gas has committed to on-going engagement and consultation with directly affected and interested parties through detailed design and construction and will continue to respond to concerns through the life of the Project. Input was reviewed and considered during the identification of potential impacts and determination of mitigation and protective measures. See Section 4.0 ‘Route Evaluation and Preferred Route Selection’ for further discussion on routing decisions.

4 Existing Conditions

4.1 Study Area

A Study Area is the area in which direct interactions with the socio-economic and natural environment could occur. For the purposes of the environmental study, the northern, southern, eastern, and western extents of the Study Area were determined by applying an approximate buffer of 500 m from the centre line of the PR, (see Figure A-1, Appendix A). Based on previous pipeline experience, direct and indirect interactions are expected to occur within 100 m of the centre line of the PR. However, a 500 m buffer has been used based on feedback from the MECP received for other similar projects, to account for potential hydrogeological interactions.

4.2 Data Sources

Information requests were made to agencies and municipalities. The information collected assisted in identifying environmental features located in the Study Area. If agencies requested that information be kept confidential, such as archaeological sites, such information has been withheld from the ER or mapped in such a way that specific site locations cannot be determined.

The existing conditions maps (Appendix C) have been generated from base mapping provided from Enbridge Gas (2021 and 2022) and data obtained from GeoHub, formerly known as Land Information Ontario (LIO) (NDMNRF 2022a). Scales have been adjusted from the original source to better represent the features mapped. Stantec has digitally reproduced features added to the base maps. Additional mapping sources are identified on the respective map, and in the references.

A background data review was conducted to determine locations of potential biophysical features (e.g., wetlands, watercourses) in the Study Area. Data were gathered through agency requests and by accessing the following online databases and sources:

- Natural Heritage Information Centre (NHIC) Database (NDMNRF 2022)
- Land Information Ontario (NDMNRF 2022)
- DFO Aquatic SAR mapping (DFO 2022)
- AgMaps (Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) 2022)
- Environment and Climate Change Canada (ECCC) Species at Risk Critical Habitat and Range Extents dataset
- Species at Risk public registry (ECCC)
- Species at Risk in Ontario (SARO) list

- Online wildlife atlases including the Ontario Breeding Bird Atlas, the Ontario Reptile and Amphibian Atlas, the Atlas of the Mammals of Ontario, iNaturalist, and eBird

For the socio-economic elements of the assessment, the most recent demographics was taken from 2021 Census of Population (Statistics Canada 2021) and the most recent economy and employment statistics were extracted from the 2017 Census of Population (Statistics Canada 2017), as this was the latest statistic available at the time of the ER. The selected census divisions included Ontario, District Municipality of Muskoka, and the Town of Huntsville. These census divisions were selected to consider the District Municipality as a whole, which includes statistics for all six of the lower-tier municipalities in the District Municipality, including the Town of Huntsville.

A reconnaissance assessment of the PR occurred during spring conditions after a majority of the snow melted from the landscape and prior to leaf-on conditions between April 19 and 20, 2022. The purpose of the site investigation was to:

- Determine the potential for additional biophysical resources along the PR not previously mapped by the applicable agencies.
- Confirm the presence of biophysical resources identified as occurring within the Study Area and determine the potential for additional aquatic resources not previously mapped by the applicable agencies.

4.3 Physical Features

4.3.1 Bedrock Geology and Drift Thickness

The bedrock geology of the Study Area consists of Precambrian Canadian Shield characterized by migmatitic rocks and gneisses of undetermined protolith (OGS 2011). A portion of the study area also is also characterized of felsic igneous rocks (tonalite, granodiorite, monzonite, granite, syenite) (OGS 2011).

A map of bedrock geology is provided in Appendix C, Figure 1.

To determine the general depth from the soil surface to the bedrock, drift thickness (also referred to as overburden) was reviewed, and results indicate that, in the Study Area, the layer of overburden ranges from 0 m to about 35 m (Gao *et al*. 2006). The drift thickness increases from west to east, and is highest in the area around Peninsula Lake

A review of available Water Well Records (WWR) in the Study Area confirms these results as it indicates that the depth to bedrock for WWR listed as screened in bedrock is between 0 to 32.6 m below ground surface (BGS). The average depth being approximately 8.81 m BGS (MECP 2022a).

4.3.2 Physiography and Surficial Geology

The Study Area is just outside the Algonquin Highlands and the region is characterized as shallow till with rocky ridges. The physiography changes to clay plains in the northeast and southwest portions of the Study Area (Chapman and Putnam 1966; Hewitt 1972). Refer to Figure 3, Appendix C. The Algonquin Highlands are described as a large area of sandy glacial till underlain by granite and other Precambrian rocks. The thickness of soil over the bedrock varies significantly and in approximately 5% of the area the bedrock is exposed to the surface (Chapman and Putnam 1984).

As shown in surficial geology mapping (Figure 4, Appendix C), the Study Area predominantly traverses Precambrian bedrock and bedrock drift complex (OGS, 2010). Surficial geology mapping (OGS 2010) indicates Precambrian bedrock over most of the Study Area. The Study Area also includes organic deposits in the western portion, fine-textured glaciolacustrine deposits in the eastern portion, and shield-derived silty to sandy till and coarse-texture glaciolacustrine deposits in the north eastern portion.

4.3.3 Groundwater

The District Municipality of Muskoka identifies and regulates the protection of source water features through the Muskoka Official Plan (The District Municipality of Muskoka 2019) and Schedule D Water Resources of the Official Plan map areas of significance, such as Wellhead Protection Areas (WHPA), Intake Protection Zones (IPZs), Municipal Intake, Municipal Outfall, and Municipal Well. The following is a description of the mapped features as shown in Schedule D of the Muskoka Official Plan (2019).

According to the Official Plan, the Study Area is located 15 km east of a Municipal Intake associated with Fairy Lake. The Municipal Intake is outside the Study Area and the Project will not impact these features.

There are no WHPA, IPZ, municipal wellheads, or Source Protection Plan Policy Areas are in the Study Area (The District Municipality of Muskoka 2019).

A map of groundwater conditions, including aquifer vulnerability and locations of nearby domestic and municipal wells, is provided in Appendix C, Figure 5. As shown in in the Study Area, most residents rely on private wells for domestic water supply. MECP WWR's indicated that 25 well records occur within the Study Area and have the following usage:

- 0 are designated as commercial/industrial
- 9 are designated as domestic
- 16 are monitoring/test holes.

Private wells are not regulated under the *Safe Drinking Water Act.* For more details on municipal water supply, see Section 3.5.3.

Regional groundwater flow is generally interpreted to be to the east towards Peninsula Lake, with local groundwater flow conditions impacted by topography and surface water features.

An assessment of aquifer risk to upwelling or artesian conditions will be completed as part of subsequent studies.

4.3.4 Aggregates and Petroleum Resources

A review of the Muskoka Official Plan, Schedule E1 (The District Municipality of Muskoka 2019) indicates that there is no presence of aggregate mineral resources located in the Study Area. The nearest aggregate feature is 20 km northwest of the Study Area and the project will not impact the features. See Section 3.5.8 for additional details on land use and aggregate sites.

4.3.5 Soil and Soil Capability

Soil capability for agriculture is mapped by Agriculture and Agri-Food Canada (AAFC 2005). Lands classified as Class 1 are the most agriculturally productive, while those classified as Class 7 have the lowest capability for agriculture. Class 1 to 5 agricultural lands are generally arable, while classes 1 through 3 are defined by the Ontario Ministry of Agriculture, Food and Rural Affairs to be prime agricultural soils for common field crop production. Soils in Class 2 have moderate limitations that restrict the range of crops or require moderate conservation practices. Soils in Class 3 have moderately severe limitations that restrict the range of crops or require special conservation practices. Soils in Classes 4 and 5 have very severe limitations that restrict their capability in producing perennial forage crops, and improvement practices are feasible.

The soil capability in the Study Area is entirely Class 6 (Figure 6) (ARDA 1961-1978). Class 6 soils are capable only of producing perennial forage crops, and improvement practices are not feasible (AAFC 2005).

4.3.6 Agricultural Tile Drainage

Agricultural tile drains are perforated tubing inserted into the ground below the topsoil with the intentions of improving drainage in the upper root zone and, ultimately, agricultural productivity. In the Study Area, there are no occurrences of mapped random or systematic tile drainage.

4.3.7 Natural Hazards

Natural hazards are elements of the physical environment that have the potential to affect a project in an adverse manner. The likelihood of seismic activity occurring in the Study Area is low (NRCAN 2021). Based on District of Muskoka floodline and LiDAR mapping (2018) the risk of flooding in the Study Area is low.

4.4 Biophysical Features

4.4.1 Aquatic Resources

As part of the assessment of potential environmental impacts, an aquatic resource review was undertaken to document and characterize aquatic features in the Study Area. The review was undertaken to identify potential impacts and provide recommendations for mitigation measures.

A review of applicable agency online databases and sources identified the following aquatic resources as occurring within the Study Area (Appendix C, Figure 7):

- Unnamed permanent tributary to Fairy Lake (warmwater)
- Unnamed permanent tributary to Peninsula Lake (thermal regime not identified)
- Waterbody
- Peninsula Lake (coldwater)
- Unnamed waterbody (warmwater)
- Unevaluated wetland

Table 4.1 below summarizes NDMNRF Aquatic Resource Area data records (NDMNRF 2022) for fish species that have been recorded within the aquatic resources identified above.

Table 4.1: Fish Community Details

Watercourse	Crossing ID	Species Present (NDMNRF 2022a)
Unnamed permanent tributary to Fairy Lake (warmwater)	n/a	Brook Stickleback (*Culaea inconstans*) Creek Chub (*Semotilus atromaculatus*) Fathead Minnow (*Pimephales promelas*) Finescale Dace (P*hoxinus neogaeus*) Northern Pearl Dace (M*argariscus nachtriebi*) Northern Redbelly Dace (*Chrosomus eos*)

4.4.1.1 Aquatic Species at Risk

The federal SARA prohibits the killing, harming, harassing, capturing, or taking of an individual of a species that is listed as an extirpated, endangered or threatened species in Schedule 1 of the Act. It also prohibits the damage or destruction of the habitat of a species that is listed as endangered or threatened; or extirpated species provided that a recovery strategy has recommended the reintroduction of the extirpated species into the wild in Canada. DFO is responsible for federal aquatic SAR other than those in, or on, federal lands.

The provincial ESA protects species that are Threatened, Endangered, or Extirpated in Ontario by prohibiting anyone from killing, harming, harassing, or possessing protected species, and by prohibiting any damage or destruction to the habitat of the listed species. All protected species are provided with general habitat protection under the ESA, with the goal of protecting areas that species depend on to carry out their life processes (e.g., reproduction, rearing, hibernation, migration or feeding). Some species have detailed habitat regulations that define the extent and characteristics of protected habitats.

Activities that may impact a protected aquatic species or their habitat require the prior issuance of a permit from the MECP, unless the activities are exempted under Regulation. The current Ontario Regulation 242/08 identifies activities which are exempt from the permitting requirements of the ESA subject to rigorous controls outside the permit process including registration of the activity and preparation of a mitigation plan. Activities that are not exempt under O. Reg. 242.08 require a complete permit application process.

Based on DFO Aquatic SAR mapping (DFO 2022), the Study Area does not support any federally designated aquatic SAR.

A review of the provincial NHIC database did not find records of provincially designated aquatic SAR in the Study Area.

4.4.2 Forest and Vegetation Cover

The Study Area is located in the Georgian Bay Ecoregion (Ecoregion 5E) characterized by cool-temperate and humid climate (MNR 2009). Forest is the dominant land cover in Ecoregion 5E, including mixed forest (32.0%), deciduous forest (22.2%), coniferous forest (12.1%), and sparse forest (11.3%); water comprises 11.0% of the land cover and pasture comprises 3.0% (MNR 2009).

The Study Area also falls within Rowe's (1972) Great Lakes-St. Lawrence Forest Region. Hardwood forests may be dominated by sugar maple (*Acer saccharum*), American beech (*Fagus grandifolia*), white ash (*Fraxinus americana*), eastern hemlock (*Tsuga Canadensis*), with numerous other species found where substrates are well developed on upland sites. Lowlands, including rich floodplain forests, contain green ash (*Fraxinus pennsylvanica*), silver maple (*Acer saccharinum*), red maple (Acer rubrum), eastern white cedar (*Thuja occidentalis*), yellow birch (*Betula alleghaniensis*), balsam fir (*Abies balsamea*), and black ash (*Fraxinus nigra*) (Crins 2009).

4.4.2.1 Vegetation Communities

The majority of the Study Area is covered by naturalized mixedwood forests common throughout the Huntsville area (NDMNRF 2022a) and are shown on Appendix C, Figure 7. As the Study Area is located within Ecoregion 5E, the local planning authorities are not required under the *Planning Act* to identify and delineate Significant Woodlands within their jurisdiction. Therefore, the NDMNRF or the District Municipality of Muskoka do not identify Significant Woodlands within the Study Area.

Other naturalized vegetation communities within the Study Area include communities associated unevaluated wetlands.

4.4.3 Wetlands

The Ontario Wetland Evaluation System (OWES) is used to evaluate the significance of wetlands in Ontario and to ultimately identify those features that are considered as Provincially Significant Wetlands (PSW). An evaluated wetland may be one contiguous unit or may be a complex of smaller wetlands functioning as a whole. Evaluated wetlands that do not qualify as provincially significant may be designated locally significant and may be protected through local planning and policy measures. There may also be unevaluated wetlands in an area.

A review of LIO (2022a) natural heritage mapping identified the presence of several unevaluated wetland features as occurring within the Study Area, in the northeastern portion of the Study Area (Appendix C, Figure 1). No PSWs were identified as occurring within the Study Area. The PR does not cross any mapped wetlands. The nearest mapped wetland is located approximately 75 m north of the portion of the PR on Skyline Drive, just east of Highway 60 (Appendix C Figure 8).

4.4.4 Wildlife Habitat and Species at Risk

Records of wildlife within the vicinity of the Study Area were compiled from available literature and resources including the Atlas of the Mammals of Ontario (Dobbyn 1994), Reptiles and Amphibians of Ontario (Toronto Entomologists Association 2019), the Ontario Breeding Bird Atlas (Cadman *et al*. 2007) and the ECCC SAR Range Map Extents (ECCC 2022).

The potential for species to be present along the PR are limited by the habitat suitability and availability supported by the Study Area. Therefore, the identified species recorded from these databases may not occur along the PR. The following section outlines the significant wildlife habitat (SWH) features and SAR found in the Study Area.

Beyond biophysical features identified in alignment with provincial guidelines, Enbridge recognizes the potential presence of cultural keystones species in the Study Area. Through ongoing engagement and consultation, additional shared knowledge will be sought from Indigenous groups to better understand environmental priorities, approaches, and potential mitigations. In addition, Enbridge may complete additional field studies, as required. These studies may include SAR surveys, Butternut Health Assessments, tree inventories, breeding bird surveys, and bat exit surveys, to inform additional mitigation measures. Interested Indigenous groups will have the opportunity to participate in these field studies, if desired. The participation of Indigenous groups in field studies provides opportunities to better understand potential cultural keystone species in the study area and other environmental priorities.

4.4.4.1 Significant Wildlife Habitat

Wildlife habitat is defined as an area where plants, animals and other organisms live, including areas where species concentrate at a vulnerable point in their life cycle and that are important to migratory and non-migratory species (MNR 2010). Wildlife habitat is considered significant if it is ecologically important in terms of features, functions, representation, or amount, and contributing to the quality and diversity of an identifiable geographic area or Natural Heritage System (MNR 2010).

SWH are grouped into four categories:

- Seasonal concentration areas
- Rare vegetation communities or specialized habitat for wildlife
- Habitats of species of conservation concern
- Animal movement corridor

The presence of SWH in the Study Area was determined in two ways. First, publicly available NHIC data was reviewed for SWH (NDMNRF 2022). Second, potential SWH was identified comparing the Significant Wildlife Habitat Criteria Schedules for Ecoregion 5E (NDMNRF 2015) to aerial photography and results of the reconnaissance

assessment conducted in 2022. The presence of SWH categories are discussed in **Table D-1** (Appendix D). Details and summaries of the significant wildlife assessment are summarized below.

4.4.4.1.1 Seasonal Concentration Areas

Seasonal Concentration Areas are sites where large numbers of a species gather at one time of the year, or where several species congregate. Only the best examples of these concentration areas are typically designated as SWH. Review of the NHIC (NDMNRF 2022) database identified a Deer Wintering Area west of Highway 60 within the Study Area. The PR is not anticipated to impact the Deer Wintering Area. Furthermore, eight types of seasonal concentration areas have been identified as potentially occurring within the Study Area and will be further investigated during proposed field efforts.

4.4.4.1.2 Rare Vegetation Communities or Specialized Habitat for Wildlife

Rare vegetation communities or specialized habitats are defined as separate components of SWH. Rare vegetation communities are habitats that are considered rare or uncommon in the ecoregion, as defined in the SWH Criteria Schedules (NDMNRF 2015). These habitats may support wildlife species that are considered significant. Specialized habitats are microhabitats that are critical to some wildlife species. Review of the NHIC (NDMNRF 2022) database did not identify any rare vegetation communities or specialized habitats within the Study Area; however, candidate SWH for these components may be present within the Study Area and will be confirmed after completion of future Ecological Land Classification surveys.

4.4.4.1.3 Habitat for Species of Conservation Concern

There are four types of species of conservation concern (SOCC): those which are rare, those whose populations are significantly declining, those which have been identified as being at risk from certain common activities and those with relatively large populations in Ontario compared to the remainder of the globe. The Significant Wildlife Habitat Criteria Schedule for Ecoregion 5E (NDMNRF 2015) identifies marsh, open country and shrub/early successional bird breeding habitat and special concern and rare wildlife species in this category.

Rare species are considered at five levels: globally rare, federally rare with designations by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), provincially rare with designations by the Committee on the Status of SAR in Ontario (COSSARO), regionally rare (at the Site Region level), and locally rare (in the municipality or Site District). This is also the order of priority that should be assigned to the importance of maintaining species.

Some species have been identified as being susceptible to certain practices, and their presence may result in an area being designated SWH. As detailed in **Table D-1** (Appendix D), habitat for marsh bird breeding habitat and special concern and rare wildlife species may occur in the Study Area.

Species designated as special concern provincially or federally are included as species of conservation concern. S-Ranks are status rankings (see list below) assigned for the province by the NDMNRF and available in the NHIC database. Provincially rare species are those with S-Ranks of S1, S2, or S3
(NDMNRF 2021):

- S1 – Critically Imperiled
- S2 – Imperiled
- S3 – Vulnerable
- S4 – Apparently Secure
- S5 - Secure

The NHIC database was accessed in June 2022, to obtain records of species of conservation concern (less than 30 years old) in the vicinity of the PR. A review of the NHIC database has indicated that 2 species of conservation concern have been previously documented in the vicinity of the Study Area. This list includes those species with a provincial ranking of S1 through S3, as well as species considered special concern (SC) federally or provincially.

The Ontario Breeding Bird Atlas (Cadman *et al.* 2007), Ontario Reptile and Amphibian Atlas (Ontario Nature 2013), the Ontario Mammal Atlas (Dobbyn 1994) and the Environment and Climate Change Canada SAR Range Map Extents (ECCC 2022) were also accessed to determine whether there is a potential for additional species of conservation concern in the Study Area. Based on this review, 3 wildlife species of conservation concern have ranges that overlap the Study Area, including 1 species of reptiles, 1 species of breeding birds, and 1 species of invertebrates.

Exact locations of species occurrences are not available from these databases or atlases, and the potential for species to be present is limited by habitat suitability and availability. Therefore, the identified species recorded from these databases may not occur in the Study Area.

Table 4.2 below provides a summary of the species of conservation concern that have been identified during the NHIC and Wildlife Atlas background review, and whether potential habitat for these species is present in the Study Area.

Table 4.2: Terrestrial Species of Conservation Concern

Species	Common Name	Scientific Name	SRANK	Provincial Status (SARO)	National Status (SARA)	Source	Potential Habitat in the Study Area? (Y/N)
Reptiles	Snapping Turtle	*Chelydra serpentina*	S4	SC	SC	ORAA, NHIC	Y – Peninsula Lake, unevaluated wetlands
Birds	Eastern Wood-Pewee	*Contopus virens*	S4B	SC	SC	OBBA	Y – Deciduous forests
	Common Nighthawk	*Chordelius minor*	S4B	SC	SC	OBBA	Y – Deciduous forests
Invertebrates	Monarch	*Danaus plexippus*	S4	SC	SC	ECCC	Y – Meadows, roadside ditches, gardens

Notes:

AMO: Atlas of the Mammals of Ontario

END: Endangered - a species facing imminent extinction or extirpation

ECCC: Environment and Climate Change Canada

NHIC: Natural Heritage Information Centre

OBBA: Ontario Breeding Bird Atlas

ORAA: Ontario Reptile and Amphibian Atlas

SARO: Species at Risk in Ontario List

SARA: Species at Risk Act

THR: Threatened - a species that is at risk of becoming endangered

SC: Special Concern - a species with characteristics that make it sensitive to human activities or natural events

S1:Critically Imperiled - Critically imperiled in the province (often 5 or fewer occurrences)

S2: Imperiled - Imperiled in the province, few populations (often 20 or fewer)

S3: Vulnerable - Vulnerable in the province, relatively few populations (often 80 or fewer)

S4: Apparently Secure - Uncommon but not rare

S?: Rank Uncertain

SH: Possibly Extirpated (Historical)

S#B: Breeding status rank

NS: No schedule – not yet on a *Species at Risk Act* schedule

4.4.4.1.4 Animal Movement Corridors

Animal movement corridors are elongated, naturally vegetated parts of the landscape used by animals to move from one habitat to another (MNR 2000). Rivers, creeks, and drains may be used as amphibian movement corridors to/from breeding habitat while forested cover may be used by deer moving to/from wintering habitat (which is identified as occurring the Study Area). Hedgerows may also serve as small linkages (MNR 2000). Preliminary vegetation community classification indicates the presence of watercourses (i.e., Unnamed tributary to Fairy Lake) within the Study Area which are considered to provide a corridor for animal movement, specifically for ungulates (I.e., moose, white-tailed deer), within the identified deer yarding areas. Animal movement corridors are discussed in **Table D-1** (Appendix D).

4.4.4.2 Species at Risk

SAR are those species given status rankings, by COSEWIC and/or COSSARO, as threatened or endangered according to federal or provincial legislation. Endangered and threatened species receive general habitat protection under the ESA 2007. Special concern species are not afforded habitat protection and have been summarized as species of conservation concern above.

Recent records (less than 30 years old) of endangered and threatened species were obtained through the NHIC database on the LIO Natural Heritage Mapping website, accessed June 2022. The NHIC database uses Element Occurrences to show locations of species. An Element Occurrence is defined as an area of land and/or water on/in which an element (e.g., species or ecological community) is or was present. For protection purposes, exact locations of species are not provided (only within a 1 km grid), and presence of the species in the Study Area are not definite.

In addition to the NHIC search, the Ontario Breeding Bird Atlas (Cadman *et al.* 2007), the Ontario Reptile and Amphibian Atlas (Ontario Nature 2013) and the Ontario Mammal Atlas (Dobbyn 1994) Environment and Climate Change Canada SAR Range Map Extents (ECCC 2022) were accessed to determine whether there is a potential for additional endangered and threatened species in the Study Area. Based on this review, 13 threatened and endangered species have ranges that overlap the Study Area, including 2 species of reptile, 6 species of breeding birds, 3 species of mammal and 2 species of invertebrates as shown in **Table 4.3**.

Exact locations of species occurrences are not available from these atlases, and the potential for species to be present is limited by habitat suitability and availability. Therefore, the identified species recorded from these atlases may not occur in the Study Area.

Table 4.3: Terrestrial Species at Risk

Species	Common Name	Scientific Name	SRANK	Provincial Status (SARO)	National Status (SARA)	Source	Potential Habitat in the Study Area? (Y/N)
Reptiles	Blanding's Turtle	*Emydoidea blandingi*	S3	THR	END	ORAA, NHIC, ECCC	Y – Ponds, marshes and lakes with shallow water and abundant aquatic vegetation
	Eastern Hog-nosed Snake	*Heterodon platirhinos*	S3	THR	THR	ECCC	Y – Sandy soils adjacent to cover and near water
Birds	Barn Swallow	*Hirundo rustica*	S4B	THR	THR	OBBA, NHIC, ECCC	Y – Human-made structures; culverts and bridges
	Bank Swallow	*Riparia riparia*	S4B	THR	THR	OBBA, ECCC	Y – roadside or waterbody embankments
	Chimney Swift	*Chaetura pelagica*	S4B, S4N	THR	THR	OBBA	Y- Forests and swamps, however, prefer human-made structures
	Eastern Whip-poor-will	*Caprimulgus vociferous*	S4B	THR	THR	ECCC	Y – Discontinuous patch forests
	Olive-sided Flycatcher	*Contopus borealis*	S4B	SC	THR	OBBA	Y – Coniferous forests surrounding unevaluated wetlands
	Wood Thrush	*Hylocichla mustelina*	S4B	SC	THR	OBBA	Y – Mature deciduous forests

Species	Common Name	Scientific Name	SRANK	Provincial Status (SARO)	National Status (SARA)	Source	Potential Habitat in the Study Area? (Y/N)
Mammals	Little Brown Myotis	*Myotis lucifugus*	S5	END	END	AMO COSEWIC*	Y – Forests and swamps
	Northern Myotis	*Myotis septentrionalis*	S3?	END	END	AMO COSEWIC*	Y – Forests and swamps
	Tri-coloured Bat	*Perimyotis subflavus*	S3?	END	END	AMO COSEWIC*	Y – Forests and swamps
Invertebrates	Gypsy Cuckoo Bumble Bee	*Bombus bohemicus*	S4	END	END	NHIC, ECCC	N – Only known to occur in Pinery Provincial Park, Dunks Bay, Oliphan Fen, and Presqu'ile Provincial Park (Colla, 2017)
	Macropis Cuckoo Bee	*Epeoloides pilosulus*	S1	N/A	END	ECC	N – No historical observations in Study Area; very rare

Notes:

AMO: Atlas of the Mammals of Ontario

END: Endangered - a species facing imminent extinction or extirpation

ECCC: Environment and Climate Change Canada

NHIC: Natural Heritage Information Centre

OBBA: Ontario Breeding Bird Atlas

ORAA: Ontario Reptile and Amphibian Atlas

SARO: Species at Risk in Ontario List

SARA: Species at Risk Act

*COSEWIC Assessment and Status Report on the Little Brown Myotis, Northern Myotis, and Tri-colored Bat in Canada

THR: Threatened - a species that is at risk of becoming endangered

SC: Special Concern - a species with characteristics that make it sensitive to human activities or natural events

S1: Critically Imperiled - Critically imperiled in the province (often 5 or fewer occurrences)

S2: Imperiled - Imperiled in the province, few populations (often 20 or fewer)

S3: Vulnerable - Vulnerable in the province, relatively few populations (often 80 or fewer)

S4: Apparently Secure - Uncommon but not rare

S5: Secure - Common, widespread, and abundant in the province

S?: Rank Uncertain

SH: Possibly Extirpated (Historical)

S#B: Breeding status rank

NS: No schedule – not yet on a *Species at Risk Act* schedule

Although potential habitat for SAR is present in the Study Area, the PPR is located within an existing road allowance that is periodically disturbed for maintenance work. In addition, construction techniques will avoid some sensitive habitats (i.e., through the use of trenchless technologies such as horizontal directional drilling). Potential impacts and mitigation measures for areas where construction of the pipeline may interact with wildlife and wildlife habitat are noted in **Table 5.1**.

4.5 Socio-Economic Environment

4.5.1 Demographics

Huntsville is a small town located in the north of the District Municipality of Muskoka, a regional municipality of approximately 66,674 residents (Statistics Canada 2021). The municipality is comprised of six townships, Huntsville being the most populated lower-tier municipality in the district (Statistics Canada 2017b) and the community of Hidden Valley is located in the Town of Huntsville.

The population breakdown of the upper- and lower-tier municipality in 2021 in which the Study Area occurs is presented in **Table 4.4** below.

Table 4.4: Population, 2021

Location	Total Population	Land Area (km^2)	Population Density per km^2
Ontario	14,223,942	892,411.76	15.9
Muskoka (District Municipality)	66,674	3,839.47	17.4
Huntsville (Town)	21,147	705.18	30.0

Source: Statistics Canada, 2021 Census of Population

Between 2016 and 2021, the Town of Huntsville and the District Municipality of Muskoka saw a significant increase in population. In this five-year period, the Town of Huntsville experienced an annual population growth rate of 6.7% (Statistics Canada 2021). As shown in **Table 4.5**, during this five-year period, the Town's population increased from 19,816 to 21,147 (6.7% increase in annual growth), while the District Municipality's population increased from 60,614 to 66,674 (10% increase in annual growth) (Statistics Canada 2021). The annual growth in the Town of Huntsville was slightly faster than the province overall.

Table 4.5: Population Growth from 2016-2021

Location	Total Population 2016	Total Population 2021	Annual Growth (%)
Ontario	13,448,494	14,223,942	5.8
Muskoka (District Municipality)	60,614	66,674	10
Huntsville (Town)	19,816	21,147	6.7

Albeit not captured in Statistics Canada figures, the Town of Huntsville experiences an influx of non-residents in the summer (i.e., cottagers and vacationers) (Muskoka Tourism 2022).

According to population projections (Ontario Ministry of Finance [OMOF] 2021), the population for Ontario is projected to increase by 35.8% (approximately 5.3 million) over the next 26 years (OMOF 2021).

The District Municipality of Muskoka Official Plan (2019) population was projected to grow to 21,000 permanent residents by 2021, however the growth marginally surpassed and is now at 21,147 (Statistics Canada 2021) and by 2036, the population is expected to grow 24,400.

To accommodate the growth (seasonal and year-round) that is expected to take place, many portions of the Town of Huntsville are expected to undergo development. This will change the landscape of rural areas, which are presently sparsely populated, and will increase the demand for municipal services and utilities, including natural gas.

4.5.2 Employment and Business

The most recent economy and employment statistics are provided in the 2016 Census of Population (Statistics Canada 2017a and 2017b). **Table 4.6** summarizes the unemployment and employment rate, participation rate, and the median income of persons over the age of 15 captured at the time of census in Ontario, District Municipality of Muskoka, and Town of Huntsville.

Table 4.6: Labour Characteristics for Persons > 15 years, 2016

Location	Total Population 15 years and Over	Labour Force	Employed	Participation Rate (%)	Employment Rate (%)	Unemployment Rate (%)
Ontario	11,038,440	7,141,675	6,612,150	64.7	59.9	7.4
Muskoka (District Municipality)	50,760	30,515	28,345	60.1	55.8	7.1
Huntsville (Town)	16,545	10,385	9,690	62.8	58.6	6.7

Source: Statistics Canada (2017a and 2017b).

As shown in **Table 4.6**, in 2016, the Town of Huntsville and District Municipality of Muskoka had lower participation and employment rates when compared to the rates for the wider province of Ontario. The unemployment rates were also lower than the province of Ontario.

Median income for households and individuals is presented in **Table 4.7**.

Table 4.7: Median Income, 2015

Location	Median Total Income of Households ($)	Median Total Income of Individuals ($)
Ontario	$74,287	$33,539
Muskoka (District Municipality)	$67,880	$32,430
Huntsville (Town)	$69,332	$32,006

Source: Statistics Canada (2017a and 2017b).

Median income of households for District Municipality of Muskoka overall was less than the provincial median by $6,407 and the Town of Huntsville was $4,955 less than the provincial median. Median income of individuals in the District Municipality of Muskoka was marginally less than the provincial median by $1,109 and, $1,533 less than the provincial median in the Town of Huntsville (Statistics Canada 2017a and 2017b).

The top three occupation classifications in Town of Huntsville were retail and trade (15.2%), health care and social assistance (12.9%), and construction (12.4%) in 2016 (Statistics Canada 2017a and 2017b).

The number of dwellings of Huntsville is projected to increase to 6695 by the year 2036 which is approximately a 20.4% increase (The District Municipality of Muskoka 2019).

According to the Muskoka Official Plan, the population, employment and dwellings projections will not impact the developments within urban centres (The District Municipality of Muskoka 2019).

4.5.3 Community Services & Municipal Infrastructure

Permanent and Temporary Accommodations

In 2016, there were 8,110 occupied private dwellings in the Town of Huntsville. Most homes were single-detached houses (6,510) and the average household size was 2.4 persons (Statistics Canada 2017a).

The District Municipality of Muskoka is in Provincial Tourism Region 12, which includes Muskoka, Parry Sound and Algonquin Park (MHSTCI 2022). In 2018, the occupancy rate at temporary accommodations in Region 12 was 55.2%, an increase from 49.8% in 2008 (MHSTCI 2018).

The Study Area falls within a tourist area thus several temporary accommodations were identified in and around the Study Area such as the Cedar Grove Lodge, Hidden Valley Resort and many more. Accommodation categories range from full-service hotel/inns and bed and breakfasts, to campsites, with traditional hotels, motels, and rental cottages (MHSTCI 2006). Permanent accommodations are limited in the Study Area however there is one residential community identified in the Study Area located north of Peninsula Lake.

The COVID-19 pandemic has had an impact on travel and tourism in Ontario (MHSTCI 2021), and the number of operating establishments offering temporary accommodations has likely changed as a result of the pandemic and travel restrictions.

Municipal Services and Infrastructure

As outlined in the Muskoka Official Plan, 2019, referenced in Section 3.3.3 of this ER and the Huntsville Official Plan, 2020, the District Municipality of Muskoka is responsible for municipal sewage services and municipal water services for the Huntsville Urban Settlement Area and the Hidden Valley Recreational Lifestyle and Resort Area. Municipal systems of various sizes draw water from groundwater and surface water sources (MECP 2022). The Study Area falls under “special policy area”. Special policy areas are serviced by extended municipal water and sewage systems from urban centres (The District Municipality of Muskoka 2019).

The nearest local landfill site, the Oxtongue Lake Waste Disposal Site, is approximately 20 km east of the Study Area which operates under MECP Environmental Compliance Approval (ECA) No. A330701. It is permitted to receive solid non-hazardous waste for

landfill and operates several waste diversion programs including but not limited to blue box, electronics, hazardous waste, scrap metal, and construction demolition material

Health and Education Services and Infrastructure

The Town of Huntsville is serviced by the Simcoe Muskoka District Health Unit, a provincially legislated public health unit that delivers services tailored to local needs and is guided by the Strategic Plan (Simcoe Muskoka District Health Unit 2019). For medical emergencies and treatments, the residents of the town and surrounding areas have access to the Huntsville District Memorial Hospital approximately 7 km from the Study Area. No hospitals or health facilities, i.e., walk-in-clinics, etc., are located in the Study Area.

The Muskoka Highlands Academy, a private school, is located in the Study Area. No other schools are located within the Study Area.

Roads, Highways and Culverts

The Town of Huntsville Public Works department and the District Municipality of Muskoka Engineering and Public Works Committee is responsible for the maintenance and management of the road system within the Study Area. There is one provincial highway (Highway 60) in the Study Area which travels northwest-southwest. The remaining roads in the Study Area are minor roads which are maintained by the Town of Huntsville Public Works department.

Policing, Fire and Emergency Response Services

The Huntsville Lake of Bays Fire Department services both Huntsville and Lake of Bays Communities. The Town of Huntsville is mainly serviced by the Ontario Provincial Police (OPP). There are no OPP detachments in the Study Area; the nearest detachment in located approximately 10 km west of the Study Area (OPP 2019).

The Muskoka Paramedic Services provides emergency medical care to residents of the Town of Huntsville along with 4 other towns and are jointly funded by the District Municipality of Muskoka and the Province of Ontario through the Ministry of Health. The Town of Huntsville paramedic station is approximately 8 km west of the Study Area (The District Municipality of Muskoka n.d.).

The Huntsville Lake of Bays Fire Department is responsible for fire prevention and response within Huntsville. The fire department operates out of five stations with headquarters located at Station 1 in Huntsville, approximately 10 km west of the Study Area. Around 250-300 calls are responded to by Station 1 Huntsville (Town of Huntsville n.d.).

4.5.4 Infrastructure

Infrastructure identified for the purpose of this Project includes roads, electrical transmission corridors, and other utilities.

MTO Network Roads

One provincial highway (Highway 60) has been identified in the Study Area; however the pipeline will follow the municipal road system and will not impact Highway 60.

Railways

No rail lines were identified within the Study Area.

Utilities

A utility transmission corridor travelling east to west has been identified on the Study Area. A variety of buried and overhead utilities (e.g., telephone, low-voltage hydroelectric) are expected to be located in the road allowances throughout Study Area. During engagement and consultation, select utility owners and operators were provided with a Notice of Study Commencement and Virtual Information Session.

4.5.5 Culture, Tourism and Recreational Facilities

The Study Area is a predominantly a recreational area with several cultural, tourism, and recreational facilities and is mainly known as the Hidden Valley Recreational Lifestyle and Resort Area which is a major resort commercial hub with a range of visitor accommodation and service needs.

Tourism is a key and growing industry in and around the Town of Huntsville. Within the Study Area, there are three bed and breakfast, one residential community and eight recreational facilities. In the south-eastern portion of the Study Area is Peninsula Lake, which residents and visitors use for boating, canoe and kayaking, swimming, and fishing. The Hidden Valley Highlands Ski Area and Muskoka Ski Club is also located in the south-eastern portion of the Study Area (Town of Huntsville 2020). The Hidden Valley Highlands Ski Area is closed during the summer season, but has multiple groomed trails, chairlifts, night skiing and snowboarding during the winter (Muskoka Ski Club 2022).

Listed below are the recreational facilities and bed and breakfasts in the Study Area.

- Muskoka Ski Club & Hidden Valley Property Owners Association (HVPOA) Private Beach
- Hidden Valley Resort, Ascend Hotel Collection
- Hidden Valley Highlands Ski Area and Muskoka Ski Club

- Los Abus – bed and breakfast
- Up North Adventure Sport
- Cedar Grove Lodge
- Algonquin Campers
- Find Your Wild
- Morgan House Bed and Breakfast and Wool Works
- Deerhurst Highlands – bed and breakfast
- Bush Poker Axe Muskoka

A golf course (Deerhurst Highlands Golf Course) is located in the southwest portion of the Study Area.

Select culture, tourism, and recreational facilities identified along the PR or immediately outside the Study Area are identified in Appendix C, Figure 13. Potential cultural heritage resources are discussed in Section 4.5.11 of the ER.

4.5.6 Air Quality and Noise

The landscape of the Study Area is a rural, residential/cottage community that is comprised of open space and/or natural heritage features. Agricultural operations outside the Study Area and everyday vehicle use from residents and visitors have the potential to expel air emissions which can impact the airshed in the Study Area.

According to the Environmental Noise Guideline (MOECC 2013), the landscape of the Study Area would most likely be categorized as a Class 3 area. This means “a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as a small community; agricultural area; a rural recreational area such as a cottage or a resort area; or a wilderness area.”

The Study Area is expected to experience a low traffic volume that represents a minimal source of noise for most of the PR. Minor noise sources in the Study Area may result from occasional sounds due to anthropogenic domestic activities such as property maintenance and recreation.

4.5.7 Indigenous Land Use and Indigenous Knowledge

Stantec respectfully acknowledges that the Williams Treaties First Nations hold constitutionally protected harvesting rights in portions of the Study Area within Treaty 20. The value of traditional knowledge and oral history are acknowledged and welcomed and provide context and background to the findings of archaeological studies. We recognize that Indigenous communities have strong ties to their lands and that the use of these lands, from a development, ecosystems, and sustainability perspective, is of vital importance to the communities.

During the early post-contact period the north shore of Lake Ontario was occupied by the Huron-Wendat and the Michi Saagiig Nishnaabeg (Mississauga Anishinaabeg). The Mississauga traditional homeland stretched along the north shore of Lake Ontario and its tributary rivers from present-day Gananoque in the east to Long Point on Lake Erie in the west. Michi Saagiig oral histories speak to their people being in this area of Ontario for thousands of years, and the Michi Saagiig of today are the descendants of the ancient peoples who lived in Ontario during the Archaic and Paleo-Indian periods. The Mississauga traditional territory was located between two powerful confederacies, the Three Fires Confederacy (consisting of the Odawa, Ojibwa and Pottawatomi) located to the north and west, and the Haudenosaunee (Five Nations Iroquois) Confederacy on the south shore of Lake Ontario in present-day New York State. In this geo-political context, the Mississauga acted as peacekeepers among the various Indigenous nations, acting as negotiators and emissaries (Kapyrka 2018). Historical background of the region is found in the Stage 1 AA, which is in Appendix E of the ER

In 2018 the Williams Treaties were renegotiated, and the settlement agreement included: recognition of pre-existing treaty harvesting rights, federal and provincial apologies, financial compensation, and additional reserve lands. The Study Area is located within Treaty 20 Traditional Territory.

4.5.8 Land Use

Municipal land uses, policies, and practices in the Study Area are governed by local Zoning By-laws, the Huntsville Official Plan (Town of Huntsville 2020) and the Muskoka Official Plan (The District Municipality of Muskoka 2019), both plans function as the official plan for the Town.

As per Schedule A Muskoka Official Plan: Land Use Designations– the Muskoka Official Plan (2019), the Study Area occurs in a Special Policy Area. The Muskoka Official Plan (The District Municipality of Muskoka 2019) describes Special Policy Areas as follows:

A Special Policy Area designation applies to area with a high-level policy framework to identify the area as a node with a distinct recreational, tourist commercial, and resort related residential character

The Study Area is located in the Hidden Valley Recreational Lifestyle and Resort Area Special Policy Area (Town of Huntsville 2020 and The District Municipality of Muskoka 2019). As per Schedule B2 of the Huntsville Official Plan (Town of Huntsville 2020), the Hidden Valley Recreational Lifestyle and Resort Area is divided into a number of specific designations. The Huntsville Official Plan has designated the following land uses in the Study Area:

- The Resort Commercial designation applies to four season resort commercial uses, on-site amenities and related recreational resort residential development.

- The Recreational Resort Residential designation applies to recreational resort residential uses.
- Open Space

There are no policies in the official plans indicating that the development of natural gas pipelines is not permitted in the Study Area (Town of Huntsville 2020 and The District Municipality of Muskoka 2019). The Huntsville Official Plan cites that the town recognizes the importance of the high-pressure natural gas (Town of Huntsville 2020).

4.5.9 Landfills and Contaminated Sites

Landfills

The potential locations of active and closed landfills in the Study Area were determined by cross-referencing Official Plan mapping for the district municipality and mapping by the Town of Huntsville as well as the MECP's Small and Large Landfill Sites (MECP 2022c, Town of Huntsville 2020 and The District Municipality of Muskoka 2019).

There are no landfill sites within the Study Area. The nearest local landfill site, the Oxtongue Lake Waste Disposal Site, is approximately 20 km east of the Study Area and operates under MECP Environmental Compliance Approval (ECA) No. A330701. This site receives solid non-hazardous waste for landfill and operates several waste diversion programs including but not limited to blue box, electronics, hazardous waste, scrap metal, and construction demolition material. Based on a review of the above sources, no other large or small landfill sites occur near the Study Area.

Contaminated Sites

Contaminated sites in and near the Study Area were determined by reviewing the official plans (Town of Huntsville 2020 and The District Municipality of Muskoka 2019) and the MECP Brownfield's Environmental Site Registry (MECP 2011), and the Federal Contaminated Sites Inventory accessed through the Treasury Board of Canada Secretariat's website (Treasury Board 2011). These sources did not identify any potential contaminated, brownfield sites, or formal industrial sites within 500 m of the Project.

No areas of potential contamination, such as automotive shops and gas stations, were identified via aerial analysis of the Study Area.

4.5.10 Archaeological Resources

A Stage 1 AA has been conducted in support of the Project and has been summarized below. A copy of the draft Stage 1 AA report has been circulated to interested Indigenous communities for review and is included in Appendix E. The final Stage 1 AA will be submitted to the MTCS for review and inclusion into the *Public Register of*

Archaeological Reports once all Indigenous communities have had an opportunity to provide comments and prior to Enbridge filing the Leave to Construct (LTC) application with the OEB.

Initial background research compiled information concerning potential archaeological resources and features of archaeological potential in the study area for the Stage 1 AA. Stantec applied archaeological potential criteria stipulated in the *Standards and Guidelines for Consulting Archaeologists* (Government of Ontario 2011) to determine areas of archaeological potential in the study area for the Stage 1 AA. These variables include proximity to previously identified archaeological sites, distance to various types of water sources, soil texture and drainage, glacial geomorphology, elevated topography, and the general topographic variability of the area. However, it is worth noting that extensive land disturbance can eradicate archaeological potential (Government of Ontario 2011).

Primary water sources identified in the Stage 1 study area includes Peninsula Lake and its associated tributaries, The proximity of these features meets the MTCS's defined characteristics for archaeological potential.

Ancient and/or relic tributaries of the various primary and secondary water sources may have existed but are not identifiable today and are not indicated on historical mapping. The historical mapping reviewed during this assessment demonstrates that the study area and its environs were occupied by Euro-Canadian farmers by the mid-19th century. Much of the established road and rail networks and agricultural settlement from that time is still visible today. Further examination of the natural environment of the study area identified soil conditions suitable for Indigenous and Euro-Canadian agriculture.

Archaeological potential can be extended to areas of early Euro-Canadian settlement, including places of military or pioneer settlements; early transportation routes; and properties listed on the municipal register or designated under the Ontario Heritage Act or property that local histories or informants have identified with possible historical events, activities, or occupations. Historical mapping demonstrates that the study area for the Stage 1 AA follows the early municipal road structure, and that a railway and schoolhouses were adjacent to or within close proximity to the PR. Much of the established road and settlement from the early 19th century is still visible today.

When the above listed criteria are applied, the study area for the Stage 1 AA retains potential for the identification of Indigenous and Euro-Canadian archaeological resources. However, as noted above, extensive and deep land alteration can eradicate archaeological potential. The Stage 1 property inspection confirmed that a portion of the study area comprises approximately 3.15 hectares (35.0%) of disturbed area constituting existing road surfaces, approximately 4.1 hectares (45.6%) of previous disturbance adjacent to the existing road (i.e., ditching and utilities) and approximately 1.02 hectares (11.3%) slope in excess of 20˚. The remaining portions of the study area, approximately 0.73 hectares (8.1%), retains archaeological potential and requires Stage

2 AA. The Stage 1 AA property inspection confirmed disturbance of these areas. The remaining portion of the study area, approximately 8.27 hectares (91.9%), retains low to no archaeological potential as it has been subject to extensive disturbance and alteration throughout the 20th and 21st centuries or features a significant slope. This portion of the study area requires no further archaeological assessment. The Stage 2 AA (and any further stages of assessment) should be completed as early as possible during detailed design, and prior to any ground disturbing activities.

4.5.11 Built Heritage Resources and Cultural Heritage Landscapes

A screening for built heritage resources and cultural heritage landscapes in the Study Area was conducted using the MTCS's *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* (the Checklist).

The Checklist is used to identify protected and potential cultural heritage resources in the Study Area and make recommendations for future work, as appropriate. The Checklist completed for the Project identified one indicator of cultural heritage value or interest (CHVI) in the Study Area. Results of the Checklist are included in **Table 4.8** and the completed Checklist is included in Appendix F.

Table 4.8: Screening for Known (or recognized) Cultural Heritage Value According to MTCS Checklist

Indicators of Cultural Heritage Value or Interest	Identified within the Study Area
Property identified, designated or otherwise protected under the OHA as being of cultural heritage value	Not Identified
A National Historic Site (or part of)	Not Identified
Designated under the *Heritage Railway Stations Protection Act*	Not Identified
Designated under the *Heritage Lighthouse Protection Act*	Not Identified
Identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office	Not Identified
Located within a United Nations Educational, Scientific and Cultural Organization World Heritage Site	Not Identified
Is subject of a municipal, provincial or federal commemorative or interpretative plaque	Not Identified
Has or is adjacent to a known burial site and/or cemetery	Not Identified
Is in a Canadian Heritage River watershed	Not Identified
Contains buildings or structures that are 40 or more years old	Identified
Is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area	Not Identified
Has a special association with a community, person or historical event	Not Identified
Contains or is part of a cultural heritage landscape	Not Identified

4.5.12 Indigenous Interests

As previously noted, this Project is located in the Williams Treaties First Nations (Stantec 2022).

There are no Indigenous communities located in the Study Area. Ontario, as the Crown, has a legal duty to consult with Indigenous peoples regarding projects or decisions that may adversely impact constitutionally protected Indigenous or treaty rights. As noted in Section 2 of the ER, Indigenous communities who were identified through provision of a Project Summary to the MOE on April 13, 2022 (see Appendix B1) are as follows:

- Alderville First Nation
- Beausoleil First Nation (Christian Island)
- Curve Lake First Nation
- Chippewas of Georgina Island
- Chippewas of Rama First Nation
- Hiawatha First Nation
- Huron-Wendat Nation
- Mississaugas of Scugog Island First Nation

5 Potential Impacts, Mitigation and Protective Measures and Net Impacts

5.1 Methodology

The potential effects and impacts of the Project on physical, biophysical, and socio-economic features have been assessed in the Study Area upon review of the existing conditions outlined in Sections 4.3-4.5. With an understanding of pipeline construction and operation activities (see Sections 5.1.1 and 5.1.2, respectively) the assessment:

- Describes the environmental and socio-economic components
- Predicts the effects and associated impacts of construction and operation activities
- Recommends supplemental studies, mitigation and protective measures (including construction methods and timing, site-specific mitigation, environmental protection measures, and compensation measures)
- Outlines the net impacts that are likely to remain

The determination of effects, impacts, and mitigation and protective measures considered:

- Comments expressed during the engagement and consultation program
- Information available from published and unpublished literature
- Maps and digital data
- Mitigation guidance documents
- The pipeline development experience of Enbridge Gas and Stantec

By necessity, the analysis, integration, and synthesis of the data is an iterative process since information becomes available at various stages of the study and at different mapping scales. The level of detail of data and mapping increases as the study moves from analysis of the Study Area to a site-specific survey of features in the Project footprint. The data available at the current stage of the environmental study is appropriate for predicting effects and potential impacts and recommending mitigation and protective measures.

Specific information requests were made to several agencies throughout the Project. The information collected assisted in identifying environmental features and constraints located on and adjacent to the PR, the potential presence of SAR and their habitat, predicting effects and potential impacts, and developing mitigation and protective measures. Where agencies requested that information be kept confidential, such as the precise location of rare, threatened, vulnerable or endangered species and

archaeological sites, such information has been withheld from the report or mapped in such a way that specific site locations cannot be determined.

The existing conditions maps (Appendix C) have been generated from data obtained from Ontario GeoHub/LIO (NDMNRF 2022). Scales have been adjusted from the original source to better represent the features mapped. Stantec has digitally reproduced features added to the base maps. Additional mapping sources are identified on the respective map, and in the references.

There are instances where field investigations are recommended before construction. Given the location of the Project components and experience of Stantec in providing environmental services for natural gas pipelines, these supplemental studies are not expected to change the conclusions regarding potential adverse residual impacts. The environmental and socio-economic information presented in the ER is based on sources cited throughout.

Table 5.1 below notes the potential impacts, mitigation, and protective measures, including recommended supplemental studies, and net impacts for the existing conditions as described in Sections 4.3 – 4.5.

5.1.1 Construction

The pipeline construction process includes various activities as described below and will be undertaken in accordance with the Enbridge Construction and Maintenance Manual (October 27, 2021):

- **Site Preparation and Clearing:** The first activity is typically the survey and staking, which delineate the boundaries of the right-of-way (ROW) and temporary work areas. Next, the ROW and temporary work areas are cleared of brush and trees. Safety fence is installed at the edge of the construction ROW where public safety considerations are required, and aspects of the Traffic Management Plan are implemented (i.e., signs, vehicle access). Silt fence is installed at required locations.
- **Pipeline Installation:** Following site preparation and clearing, the pipeline may be installed by any one of three methods:
  - **Horizontal Directional Drilling (HDD):** This trenchless pipeline installation method involves creating entry and exist pits on either side of a feature (such as watercourses), drilling a pilot hole with the aid of drilling fluid, and then pulling the pipeline back through the hole.
  - **Trenching:** This pipeline installation method involves excavation of a trench, lowering the pipeline into place, and then backfilling the trench. During backfilling the originally excavated subsoil is placed over the pipe in the trench. In stony areas, the pipe may be sand padded to protect the coating. In shallow water table areas, the pipeline may be weighted to provide negative buoyancy.

  - **Ploughing:** This pipeline installation method involves the use of a machine that creates a furrow in the ground, places the pipe in the newly created opening, and then closes back up the opening.
- **Hydrostatic/Pressure Testing:** The pipeline is pressure tested by filling the pipe with nitrogen or air and holding it at a high pressure for a set period of time, per the requirements of CSA Z662-19 Clause 8 and applicable Enbridge Gas specifications for pressure testing.
- **Clean-Up and Restoration:** Clean-up is the restoration of the ROW and other work areas. In natural areas, clean-up will include restoring disturbed areas (road embankment) to pre-existing conditions and re-seeding of the ROW. Watercourse crossings and wetlands (if disturbed) will be restored and stabilized. Erosion and sediment controls (ESC) installed during construction may be removed if necessary. Clean-up will also include landscaping, and/or laneways and driveway rehabilitation.

5.1.2 Operation and Maintenance

Pipeline operation consists of pressurized natural gas flowing through the pipeline. Mainline valves located at the valve sites will serve to shut off and isolate the pipeline for maintenance and security purposes. Additional above-ground facilities along the pipeline include post-mounted signs identifying the pipeline, aerial patrol signs for aircraft patrols, fence stiles, foot bridges for ditch crossings (if applicable), and "test boxes" located along fence lines at roads that are used to assess the adequacy of the corrosion protection system.

Once the pipeline is operational, the following activities may be undertaken to patrol and maintain the pipeline:

- Completing a ‘line walk’ of the entire pipeline by Enbridge Gas personnel on a 4 year cycle to check for exposed pipelines, evidence of damage to aboveground equipment and piping, evidence of damage to underground piping and gas leaks, and identify any unassociated construction activity near the pipeline RoW
- Checking cathodic corrosion protection – a low voltage electric circuit that runs along the length of the pipeline to prevent the development of external corrosion is completed on an annual basis
- Completing regular checks and maintenance at pipeline facilities such as valve sites
- Completing depth of cover surveys, so that the amount of soil cover over the pipeline is maintained
- Performing periodic inspection by running electronic tools through the interior of the pipeline to assess for the presence of corrosion or dents and the need for repairs
- Completing class location surveys

5.2 Summary Table

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Feature Types	Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
Physical Features	Bedrock Geology and Drift Thickness *Section 4.3.1*	The planned excavation depth for the Project is approximately 1.2 m below grade with the potential to exceed this depth for watercourse, road crossings and other sensitive features. Based on the depth of the excavations and the potential for bedrock to be encountered at grade in the Study Area (according to MECP WWR's), bedrock is likely to be encountered during construction. Based on the depth of the excavations and the potential for bedrock to be encountered at grade in the Study Area, hoe-ramming may be required during construction for trench excavation Should bedrock be encountered during HDD, there is a potential to encounter cobbles and boulders in the overburden soils along the entire alignment.	• If HDD is used, pressure relief pits can be considered for implementation in the design on either side of water crossings to dissipate high fluid pressures that may develop during drilling. • Potential presence of weathered zones, soil seams and/or shale interbeds within the bedrock should be considered in the design to address impacts to bedrock. • The over-drill typically used for HDD installation should be sufficient to address any rock squeeze that may occur. • The HDD crossings will be designed and approved by a professional engineer and carried out by a specialty crew. The installation procedures must conform to all relevant Ontario Provincial Standard Specifications. • Where use of a hoe-ram is required, any fly rock dispersed should be collected from the area surrounding the work site and stockpiled. • If a significant quantity of bedrock has been removed, the material should be temporarily stockpiled and later transported to a local aggregate producer for reduction to crushed stone. Additionally, the material should be offered to interested landowners and businesses in the vicinity of the Project. • Where hoe-ramming is undertaken the addition of water to reduce dust should be considered where appropriate.	With the implementation of the mitigation and protective measures, no significant adverse residual impacts as a result of bedrock removal are anticipated.
	Physiography and Surficial Geology *Section 4.3.2*	In areas of shallow drift thickness, disturbance to the overburden in the Study Area may cause surface soil erosion and trench slumping during construction. In the portions of the Study Area which display more characteristics of undulating topography there are potential erosion impacts to surficial deposits that may result in surface soil erosion and/or watercourse sedimentation during construction.	• Slope stabilization and erosion controls for slopes should be installed, particularly in those areas proximal to watercourses, wetlands, or other drainage features. In addition to mitigation measures outlined in Enbridge Construction and Maintenance Manual (October 27, 2021) standard ESC measures are discussed below, in row Section 3.3.5 'Soil and Soil Capability', and erosion and sediment controls specific to protecting watercourses, wetlands, etc. from sedimentation resulting from rainfall events during construction are discussed in row Section 4.4.1 'Aquatic Resources'. • Surface soil erosion can occur in the absence of vegetative cover. Where there is potential for soil erosion, the need for and location of ESC measures should be determined by an inspector with appropriate qualifications and installed prior to the commencement of work in the area. • When land is exposed, the exposure should be kept to the shortest practical period. Natural features should be preserved to the extent practical. Temporary vegetation and mulching should be used to protect areas as appropriate. Where required, natural vegetation should be re-established as soon as practical. • The contractor must obtain adequate quantities of materials to control erosion. Additional supplies should be maintained in a readily accessible location for maintenance and contingency purposes. ESC structures should be monitored to maintain their effectiveness throughout the life of construction and post-construction rehabilitation. • Even with ESC measures, extreme precipitation events could result in collapse of silt fencing, overflow or bypass of barriers, and other situations which could lead to erosion. When site conditions permit, permanent protection measures should be installed on erosion susceptible surfaces. If the erosion is resulting from a construction-related activity, the activity should be halted immediately until the situation is rectified.	With the implementation of the mitigation and protective measures, no significant adverse residual impacts are anticipated.
	Groundwater *Section 4.3.3*	Hydrostatic Testing and Dewatering The pipeline may be hydrostatically tested before commissioning. Select	**Hydrostatic Testing and Dewatering** • For groundwater dewatering, the MECP allows registration under the EASR for construction dewatering projects where groundwater takings will be greater than 50,000 L/day and less than 400,000 L/day; however, should groundwater takings exceed 400,000 L/day, a PTTW may be required from the MECP.	With the implementation of the mitigation and protective measures,

Feature Types	Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		sections of pipe may also be pre-tested. Water required for the testing may be obtained from a municipal or natural source. Before withdrawal of water from a municipal source, the District Municipality of Muskoka and Town of Huntsville will be contacted to confirm the maximum rate of withdrawal. Where trenches encounter shallow groundwater conditions or following a large precipitation event, removing water from the trench (known as dewatering) may be necessary. During trench dewatering, discharge water will be released to the environment. An uncontrolled discharge of water could cause downstream flooding, erosion, sedimentation, or contamination. Other potential effects of uncontrolled discharge may include introduction of hazardous materials or pollutants to soils or bodies of water.	• If surface water is used as the source water for the hydrostatic test, a PTTW application would be required and would include an assessment of the capacity of the source to provide the required water without impacting the ecosystem, and recommendations for mitigation measures such as screened water intakes to limit intake of debris and organisms and energy dissipation/erosion control measures during discharge to limit erosion and sedimentation. For water takings from a natural water source, an assessment of the capacity of the source to provide the required water, without impacting the ecosystem, should be conducted. • To reduce the potential for erosion and scouring at discharge locations during construction dewatering and/or hydrostatic testing, energy dissipation techniques should be used. Discharge piping should be free of leaks and should be properly anchored to prevent bouncing or snaking during surging. Protective measures may include dewatering at low velocities, dissipating water energy by discharging into a filter bag or diffuser and utilizing protective riprap or equivalent. If energy dissipation measures are found to be inadequate, the rate of dewatering should be reduced or dewatering discontinued until satisfactory mitigation measures are in place. Discharge should be monitored to make sure that no erosion or flooding occurs. • To assess the potential for introduction of contaminated water to soils or bodies of water, testing of hydrostatic and trench dewatering discharge water should be considered. Testing requirements can be influenced by the nature and quality of the source water used, any additives to the test water, the nature of the pipeline, and pipeline contents. An environmental consultant should be consulted to determine what testing is necessary for the discharge water. • Before the withdrawal of water from a municipal source, the municipality should be contacted to confirm the maximum rate of withdrawal. An MECP approved licensed waste hauler may be utilized for disposal of hydrostatic test water. **<u>Private Water Wells</u>** • Given the dependence on private water wells for domestic water supply, a private well survey should be conducted to assess domestic groundwater use near the Project and a private well monitoring program may be recommended for residents who rely on overburden groundwater supply for domestic use. This monitoring program may include pre—construction water quality monitoring as well as water level monitoring, if available. Should a private water well be affected by Project construction, a potable water supply should be provided, and the water well should be repaired or restored as required. **<u>Municipal Water Supply</u>** During construction, the primary concern to surface water quality is the potential for a contaminant spill during a large storm event. To address this concern, the following mitigation measures are proposed: • Refueling of equipment should be undertaken 100 m from wetlands and watercourses (e.g. Peninsula Lake) to reduce potential impacts to surface water and groundwater quality if an accidental spill occurs. If a 100 m refueling distance is not possible, under approval from on-site environmental personnel, special refueling procedures for sensitive areas should be undertaken that include, at a minimum, using a two-person refueling system with one worker at each end of the hose. Spill containment devices and absorbent material shall be on hand and readily available. • To reduce the impact of potential contaminant spills, the contractor should implement spill management protocols such as secondary containment of any temporary fuel storage and preparation of a spill response plan. • Work should be limited or stopped during and immediately following significant precipitation events (i.e., 100-year storm event), at the discretion of on-site environmental personnel. • Bulk fuel trucks, service vehicles and pick-up trucks equipped with box mounted fuel tanks shall carry spill prevention, containment and clean up materials that are suitable for the volume of fuels or oils carried. Spill contingency material carried on bulk fuel and service vehicles shall be suitable for use on land and water. • Employ the following measures to reduce the risk of fuel spills: – all containers, hoses, nozzles are free of leaks; – all fuel nozzles are equipped with automatic shut-offs; and – always have operators stationed at both ends of the hose during fueling. • Inspect hydraulic, fuel and lubrication systems of equipment so that systems are in good working condition and free of leaks. Equipment to be used in or adjacent to a watercourse or waterbody during emergency response during an HDD will be clean or otherwise free of external grease, oil or other fluids, mud, soil, and vegetation.	no significant adverse residual impacts on groundwater are anticipated.

Feature Types	Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		Private Water Wells In the Study Area, most, if not all, of residence rely on private wells for domestic water supply uses. There are approximately 25 water wells in the Study Area, 9 of which are designed as domestic supply. Depending on the proximity to wells, the depth of the well installation and the groundwater levels encountered during excavation, trench dewatering may impact water well quality or quantity at some of the overburden supply wells. Municipal Water Supply There are no Highly Vulnerable Aquifers (HVA's) identified in the Study Area. Through the *Clean Water Act*, it will be determined whether the existing or future land use or activity will threaten significant drinking water No Significant Groundwater Recharge Area's (SGRA's) were identified in the Study Area. Should a SGRA be identified, SGRA's will be protected from incompatible development and site alteration. (Town of Huntsville 2020). There are no IPZ's located in located within the Study Area.	• An impervious tarp shall be in place underneath equipment/vehicles when servicing equipment/vehicles with the potential for accidental spills (e.g., oil changes, servicing of hydraulic systems, etc.) in accordance with regulatory conditions. • The contractor shall prepare a Spill Response Plan prior to construction.	
	Aggregates and Petroleum Resources *Section 4.3.4*	No presence of aggregate mineral resources were located in the Study Area.	As no impacts are anticipated, no mitigation or protective measures are recommended.	As no impacts are anticipated, no net impacts will occur.
	Soil and Soil Capability *Section 4.3.5*	The Project will be largely confined to the road allowance where the preferred pipeline will be installed. Though the proposed infrastructure will impact a limited amount of land, where temporary workspace will be required on lands adjacent to the road allowance there is potential to impact soil productivity. Excessive passes with heavy equipment can damage topsoil to the point of greatly diminished productivity. Soil characteristics relating to the potential for damage include	In addition to the soil erosion mitigation measures outlined in the Enbridge Construction and Maintenance Manual (October 27, 2021), the following measures are recommended. • As an initial stage of construction, standard ESC measures should be implemented on all active areas. ESC features should be regularly inspected and maintained. Additionally, ESC features should be improved or added to in areas requiring more protection. • To the extent feasible, construction activities should occur during drier times of the year. Lands affected by heavy rainfall events and wet soil conditions should be monitored, to avoid the potential for topsoil and subsoil mixing. Construction activities should be temporarily halted on lands where excessively wet soil conditions are encountered. Enbridge Gas's on-site inspection team should determine when construction activities may be resumed. • If a situation develops that necessitates construction during wet soil conditions, soil protection measures should be implemented, such as: confining construction activity to the narrowest area practical, installing surface protection measures, and using wide tracked or low ground pressure vehicles. • During construction activities, weather should be monitored to identify the potential onset of high wind conditions which can cause wind erosion. If high winds occur, protective measures such as the following will be implemented:	With the implementation of the mitigation and protective measures, no significant adverse residual impacts on soil or soil capability are anticipated.

Feature Types	Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		moisture content, texture, organic matter content. Sandy soils are more resilient, but clay soils can be susceptible to severe rutting and compaction which can greatly reduce agricultural productivity. Construction in wet conditions can increase the susceptibility to compaction damage. Additionally, improper topsoil stripping, topsoil storage and topsoil replacement can result in mixing of topsoil and subsoil that can also reduce soil productivity. During construction, soils with no vegetative cover are more prone to erode. This can result in soil erosion from water and wind. Soil susceptibility to water erosion depends on a number of variables, including intensity and duration of rainfall events, antecedent soil moisture, surface soil cover, slope, soil texture, soil structure and organic matter content. Similarly, the susceptibility of soils to wind erosion depends on wind speed, surface soil cover, soil texture, soil structure and organic matter levels. Water and wind erosion both can result in a significant loss of topsoil. Excess soil may be generated on-site from construction activities that will require off-site management.	– suspend earth moving operations – apply dust suppressants – protect soil stockpiles with a cover, barrier or windscreen. • In conjunction with the above measures, all required materials and equipment should be readily accessible and available for use as required. • If clean-up is not practical during the construction year, it should be undertaken in the year following construction, starting in May or June once the soils have sufficiently dried. Interim soil protection measures should be undertaken in sensitive areas to stabilize the ROW for over-wintering. • The MECP has regulations for the movement of excess soils in the province of Ontario. Though the Project is not expected to generate excess soil, Enbridge Gas should retain or consult with a qualified person who is knowledgeable in the current excess soils guidelines, in order to make recommendations for the management of excess soils.	
	Agricultural Tile Drainage *Section 4.3.6*	During the environmental study, no agricultural tile drains were identified in the Study Area and, therefore, no mitigation and protective measures are warranted.	As no impacts are anticipated, no mitigation or protective measures are recommended.	As no impacts are anticipated, no net impacts will occur.

Feature Types	Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	Natural Hazards *Section 4.3.7*	The likelihood of significant seismic activity and flooding in the Study Area is low; therefore, no potential impacts are anticipated.	As no impacts are anticipated, no mitigation or protective measures are recommended.	As no impacts are anticipated, no net impacts will occur.
Biophysical Features	Aquatic Resources *Section 4.4.1*	During the environmental study, no watercourse crossings were identified and, therefore, no mitigation and protective measures are warranted.	As no impacts are anticipated, no mitigation or protective measures are recommended.	As no impacts are anticipated, no net impacts will occur.

Feature Types	Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	Forest and Vegetation Cover *Section 4.4.2*	Vegetative cover in the road allowance generally consists of common, hardy plant species that are adaptable to disturbed environments. The Study Area is dominated by wooded areas, rural residential properties, recreational properties, and wetlands. Without appropriate mitigation measures, construction activities can adversely impact trees and other vegetation through soil compaction, removal of topsoil and equipment encroachment, causing irreversible damage to roots or trunks and destroying the structural integrity of vegetation or soils. Any filling, excavation, grading or trenching (if required) in the root area of a tree has the potential to cause irreversible damage. Where there is natural vegetation within or adjacent to the Project components, potential impacts include the removal of native vegetation, introduction or spread of invasive species, and indirect effects such as dust, erosion, and accidental spills.	The following mitigation measures, or equivalent, should be implemented to reduce impacts on designated natural areas and vegetation cover: • Tree clearing should be scheduled to occur outside of the breeding bird window (i.e., not occur between April 1 and August 31) to comply with the MBCA and the active season for bats (i.e. not occur between April 1 to October 1). Where limited tree clearing is required during this window, a breeding bird survey and bat sweep can be completed to identify evidence of nesting, bat roosts and areas to be avoided. • Construction traffic should be restricted to the existing road allowance where possible to avoid potential compression damage to the root zones of trees located adjacent to the road allowance. • Limits of the temporary workspace should be clearly marked to reduce encroachment into adjacent wooded areas and avoid unnecessary tree removal. Erosion-prone areas of the road allowance should be revegetated with suitable protective cover during and post-construction. • Clearing should be reduced to the extent possible in sensitive areas such as woodlands • Clearing should be done during dry soil conditions to the extent practical to limit disturbance to vegetation and terrain. • Construction traffic should be restricted to the existing road allowance where possible to avoid potential compression damage to the root zones of trees located adjacent to the road allowance. • High-traffic or erosion-prone areas of the road allowance should be revegetated with suitable protective cover during and post-construction. • A re-vegetation program should be developed and implemented for all vegetated temporary work areas. Enbridge Gas should consult with landowners to confirm replanting plans. • Seeding of the disturbed temporary work areas and the permanent easement should be done with a native seed. Replaced soils should contain native seed bank, facilitating successful revegetation. • Reclamation in residential/commercial land areas traversed by the road allowance should involve seeding (or sodding) the disturbed areas and replacement of ornamental trees and shrubs. • One year following construction, planted vegetation should be inspected for survival; in areas of severe dieback, dead and diseased planted vegetation should be replaced. • The following criteria are recommended to be taken into consideration when selecting a seed mix for use in natural vegetation areas: – Site specific conditions such as climate, soil types and terrain should be considered. – Only local native species should be included. – A fast-growing seed mixture requiring little or no maintenance should be selected. – Seed mixture should be consistent with the land use of the area. – If there is no suitable local native seed mix available but seeding is deemed desirable to promote rapid revegetation of an area, a non-invasive annual nurse crop such as annual ryegrass should be used instead. • Purchased seed should be certified free of weeds. **<u>Invasive Species</u>** • To prevent the spread of invasive species, equipment shall be inspected and cleaned of soils and plants prior to leaving the depot, moving within, or leaving any work site to prevent the spread of invasive species. • Cleaning equipment of soils and plants must involve the following (whether cleaning at a depot or on a work site): – When possible, clean equipment on nearby hard surfaces such as gravel, concrete, or asphalt. – Choose an area with a gentle slope to direct water and material away from the equipment. – Use shovels, compressed air, pressure washers, etc. to remove dirt, debris, and plants. – Cleaning hard-to-reach places including the underside of a vehicle, mud flaps, bumpers, and foot wells. – Clean inside a vehicle by sweeping or using compressed air.	With the implementation of the mitigation and protective measures, no significant adverse residual impacts on designated natural areas and vegetation are anticipated.

Feature Types	Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	Wetlands *Section 4.4.3*	During the environmental study, no wetland crossings were identified. The PR does not cross any mapped wetlands. The nearest mapped wetland is located approximately 75 m north of the portion of the PR on Skyline Drive, just east of Highway 60. Potential impacts to the wetland may result from accidental spills or erosion/sedimentation.	Refer to mitigation for Soil and Soil Capability (Section 4.3.5) for ESC measures and Groundwater (Section 4.3.3) for mitigation for accidental spills.	As no impacts are anticipated, no net impacts will occur.
	Wildlife Habitat, Wildlife, and Species at Risk *Section 4.4.4*	Potential impacts on wildlife and wildlife habitat from construction include direct mortality from construction vehicles and/or adults abandoning young due to disturbance, habitat destruction through vegetation removal, habitat degradation through accidental spills and sensory disturbance. No new lands or natural areas are anticipated because the Project will be working within a road allowance. Mitigation will be primarily targeted at SOCC and ESA 2007 protected species that are known to occur in the area such as turtles, bats, and birds. The preferred habitat for SOCC and ESA 2007 protected species is generally not present in the road allowance; however, mitigation measures are detailed below with regulatory requirements (if any) for SAR to be determined by the MECP.	• Prior to all activities, a worker awareness program should be implemented that includes SAR identification and habitat or nesting characteristics as well as reporting protocols. SAR sightings should be reported immediately to the Inspector/Enbridge Environment followed by MECP or ECCC, as required. • On-site construction personnel should be informed of the potential presence of the SAR and/or SOCC identified in the Study Area, obligations under the ESA (Government of Ontario 2007), and recommended actions in the event of an encounter. • Locations of habitats of endangered, threatened, special concern, rare species and SWH along the PR was confirmed during supporting surveys in spring/summer 2022. Additional mitigation measures should be developed as appropriate. • Detailed design of the preferred pipeline location within the road allowance will be reviewed after field surveys in spring/summer 2022 are completed to avoid and reduce the likelihood of impact upon wildlife habitat to the extent possible, and in particular, habitats of endangered, threatened, special concern, rare species and SWH. • Trench operations should be followed as closely as practical with backfill operations, to facilitate the movement of wildlife across the trench. • Gaps in stockpiles should be created, in consultation with a biologist, to allow for the potential movement of wildlife across the ROW. • Fencing should be erected around deep excavations to prevent wildlife entrapment. • Equipment and vehicles should yield to wildlife. • The contractor should inform their personnel to not threaten, harass or injure wildlife. • If wildlife is encountered during construction, personnel are required to move away from the animal and wait for the animal to move off the construction site. • ESA 2007 protected species cannot be handled unless authorized by MECP and NDMNRF. • If SAR are found in the Study Area, Enbridge Gas will undertake engagement and consultation with the MECP to identify species specific mitigation and/or permitting requirements under the ESA. • Any SAR individual that is incidentally encountered in the Study Area must be allowed to leave of its own accord. • Should on-site personnel be unable to allow an incidentally encountered SAR individual to disperse from the active construction area under its own ability, measures developed in consultation with MECP will be implemented. • SAR individuals that are encountered in the work zone should be reported to the MECP staff in 48 hours of the observation or the next working day, whichever comes first. • If an injured or deceased SAR is found, the specimen must be placed in a non-airtight container that is maintained at an appropriate temperature and MECP must be contacted immediately for additional guidance. **<u>Amphibians</u>** • Where practical, avoid construction in the vicinity of areas that may provide habitat for amphibians during the amphibian breeding season (March 1 – June 30). Amphibian habitat will be identified during 2022 field investigations. **<u>Bats</u>** • Areas of potential bat maternity roosting habitat will be identified during 2022 field investigations. Tree removal in identified areas should be limited to the extent possible and will avoid the active season for bats (April 1 to October 1). • If tree removal is required, mitigation recommendations for SAR bats will be prepared upon engagement and consultation with MECP.	With the implementation of the mitigation and protective measures, no significant adverse residual impacts on wildlife habitat, wildlife, SAR or SWH are anticipated.

Feature Types	Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
			Birds • Construction activities with the potential to remove migratory bird habitat, such as vegetation clearing, should be avoided during the breeding season which is generally from April 1- August 31 in southern Ontario (Environment Canada 2020). Should vegetation clearing activities be unavoidable during this window, a mitigation program should be developed, which includes measures to reduce and avoid impacts to migratory birds and their nests. This program should include preventative and mitigation measures but may also include avoidance of clearing during key sensitive periods and in key locations. • If clearing is to be completed during the bird nesting season, nest sweeps should be completed no later than seven days prior to clearing activities. **Turtles** • Shallow marshes, ponds or watercourses identified within the Study Area may have the potential to provide habitat for Blanding's Turtle or other turtle SOCC. Regulatory requirements for Blanding's Turtle are at the discretion of the MECP, with recommended mitigation measures outlined below. • Implement ESC measures as outlined in this table to protect turtle habitat (wetlands). • . • Exclusion fencing should be installed prior to the sensitive nesting season (May 1 and June 30) if activities are anticipated to occur throughout this period to prevent turtles from entering and/or nesting; or pre-screening can be completed to avoid nests if work must begin during nesting season. • No heavy machinery should be permitted on the shoulder of the road past the exclusion fencing to prevent compaction and prevent destruction of nests and habitat. • Where possible, restrict construction activities within 30 m of a nesting site. **Plants** • Confirm if Butternut trees are located within 25 m of temporary workspace and potential excavation. Consult with the MECP for potential disturbances to butternut trees. HDD may be an option to bypass ground disturbance work within 25 m of butternuts if amicable to MECP. Otherwise, registration under Ontario Regulation 830/21. **Other Wildlife** • Nuisance and large wildlife encounters (e.g., nuisance bears) or incidents involving wildlife should be reported to the NDMNRF. • Food waste and other debris should be properly contained and should be collected and removed from the site on a daily basis to an approved disposal facility. •	

Feature Types	Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
Socio-Economic Environment	Demographics *Section 4.5.1*	According to population projections, the population in Huntsville will continue to grow modestly in the coming years. To accommodate the growth that is to take place, several portions of the Town are expected to undergo development. This will change the landscape of the area, and will increase the demand for municipal services and utilities, including natural gas. The installation of natural gas and other utilities will therefore have a positive impact on the community as it will accommodate projected growth and the subsequent increase in natural gas demand and usage. During pipeline construction residents and business in the Study Area may experience a general nuisance, and temporary disruption in the use and enjoyment of their property and in the use of local roads from associated vehicular traffic, dust, and equipment exhaust. Residents and business owners may experience temporary access disturbance. Construction activities also have the potential to disturb the perceived aesthetic value that residents place on their property and the area in general. Potential safety concerns for residents also exist at locations where properties, residents, and vehicles come in proximity to construction activities.	• Additional correspondence with residents adjacent to the Project should be held in advance of construction commencement. Contact information for a designated representative should be available prior to and during construction to address questions and concerns. • During construction, motorized construction equipment should be equipped with mufflers and silencers. • Company and construction personnel should avoid idling of vehicles; vehicles or equipment should be turned off when not in use unless required for operation of the vehicle or equipment. • Construction activities should adhere to the Town of Huntsville Noise By-Law No. 2018-155, which states that No Person shall emit or cause or permit the emission of Noise resulting from the operation of any Construction Equipment, combustion engine or pneumatic device without an original equipment manufacturer specification exhaust or intake muffling device in good working order and in constant operation if clearly audible at a Point of Reception, within a prohibited time shown below: – 21 00 hrs one day to 07 00 hrs the next day – Sunday: 07 00hrs to 12 00hrs 18 00hrs one day to 07 00hrs the next day • undertaken to determine the suitability and effectiveness of temporary noise barriers adjacent to residential or business properties. • Watering for dust control must not result in the formation of puddles, rutting by equipment or vehicles, the tracking of mud onto roads, or the siltation of watercourses. • The contractor should implement site practices during construction that are in line with the Environment Canada document 'Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities' (Environment Canada, 2005), which may include: – maintaining equipment in compliance with regulatory requirements – protecting stockpiles of friable material with a barrier or windscreen in the event of dry conditions and dust – dust suppression of source areas – covering loads of friable materials during transport. • Where pipeline construction activities and machinery have the potential to temporarily affect the local landscape, restoration of the construction area will leave little evidence that a pipeline exists. • Construction should be conducted as expeditiously as possible, to reduce duration of activities. • Tree removal should be reduced to the extent possible. Where tree removal is necessary, re-vegetation should occur in consultation with the landowner. Vegetative buffers at watercourse and road crossings should be restored where feasible. • Access to driveways and roads should be maintained as practical during the construction period. The pipeline, once constructed, will not restrict access. • The Contractor should protect lawns against damage by spoil, using tarpaulins, and/or plywood sheets. Wherever necessary, the Constructor must provide crossings to permit the landowner or tenant to have access to their property. • Safety fence should be installed at the edge of the construction area where public safety considerations are required. • The contractor should implement a Traffic Management Plan for all roads affected by construction, which at a minimum outlines measures to: – control the movement of materials and personnel to and from the construction site – post signs to warn oncoming motorists of construction activity – control traffic at road crossings – reduce on-road disturbance and land closures – store equipment as far from the edge of the road as practical – install construction barricades at road crossings.	With the implementation of the mitigation and protective measures, no significant adverse residual impacts on residents are anticipated.

Feature Types	Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	Employment and Business *Section 4.5.2*	Project demands for labour and goods and services can result in both beneficial and adverse effects. Positive effects may not be evenly distributed among populations, with some residents in a better position to receive economic benefits than others. Similarly, adverse effects may affect some residents more than others. Residual effects on employment are related to the project's labour demand compared to the labour supply. Three types of employment are considered: • Direct employment: labour that is hired directly for the project • Indirect employment: labour hired by companies in order to produce and provide goods and services needed for the project • Induced employment: labour hired by industries that produce and provide consumer items and services purchased by people who are directly or indirectly employed by the project Labour conditions will be affected by direct, indirect, and induced employment during all project phases. The Project could affect business through purchases of labour, goods, and services from local businesses, including businesses owned by Indigenous peoples, and will result in increased local employment income and municipal government revenue. Local businesses will likely benefit from supplying the Project with goods and services.	• It is expected that the Project will generally result in positive effects on employment by employing local and Indigenous people, and by reducing the unemployment rate in the region. These positive effects do not require mitigation, but Enbridge Gas should identify and implement various mechanisms to enhance project benefits: • The potential effects of the Project as a result of purchasing labour, goods, and services is expected to be positive during construction and operation, so no mitigation will be required. However, Enbridge Gas has and will continue to work with local and Indigenous businesses to enhance their potential for successfully bidding on project contracts regarding the supply of goods and services, particularly for the operation phase. One initiative to help encourage further local and Indigenous content on the Project is to post Project purchasing requirements in advance, so that businesses can position themselves to effectively bid to supply goods and services needed for construction and operation. Increased participation of local and Indigenous businesses will enhance positive local economic effects. • With respect to potential adverse effects on local businesses, the following mitigation and protective measures should be followed: • Enbridge Gas should engage with landowners, businesses, and the Municipality to address access to the Study Area and any portion of land that will be altered as part of site preparation, and long-term changes.	With the aforementioned initiatives to encourage local and Indigenous participation on the Project, it is anticipated that the effects from project on employment and business will be positive, including creating positive economic activity through new direct, indirect, and induced employment. Project expenditures on local businesses and suppliers also have the potential to positively affect the local economies. Consultation with residents and businesses will address any concerns to their operations. With the implementation of the mitigation and protective measures, no significant adverse residual impacts on employment and business are anticipated.

Feature Types	Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	Community Services and Municipal Infrastructure *Section 4.5.3*	The presence of temporary workers in the local communities during the construction period has the potential to increase the demand for housing and local community services and infrastructure. Non-local Project workers are expected to stay in temporary accommodations, including hotels, motels, and campgrounds. Since the Study Area is in a recreational area, there are several accommodations available, therefore it is anticipated that non-local project workers will stay in accommodations located in and around the Town of Huntsville. Non-local Project workers may also choose to rent cottages or apartments. The vacancy rate for temporary rentals will likely be able to accommodate the temporary increase. The short duration of the Project, as well as the structure of the work shifts, will limit the need for workers to use the services and infrastructure in local communities. The transportation of Project goods, services, and workers has the potential to lead to increased use of existing transportation infrastructure. Also, increased traffic volumes along local road networks could increase travel times and reduce road safety, which might lead to increased use of local emergency services due to potential vehicle accidents and workplace accidents. In addition, the production of Project-related waste could place additional stress on the capacity of local landfills. During operation, the workforce will remain the same as current operations with no planned changes.	• Project employees might require medical attention while staying in the area. The contractor and Enbridge Gas should have emergency response equipment and trained personnel on-site during construction. In addition, an Emergency Response Plan will be developed and implemented, which will address field health services, emergency call-out procedures and fire response plans. Safety fencing will be used where necessary to separate the work area. • Environmental mitigation will be in place to reduce the likelihood of emergency events and to prepare for the management of emergency events on site. If an emergency incident were to occur, it is anticipated that the comprehensive mitigation, contingency plans, and safety strategies will result in a localized and low-intensity response. • A Traffic Management Plan will be in place for all roads affected by construction, see row Section 3.5.1. • The capacity of waste disposal sites will be considered and if Project needs are not easily accommodated, alternative disposal locations will be considered. • Enbridge Gas should provide Project information to local communities and service providers so that they are prepared for any possible demand on community services and infrastructure related to a temporary population increase. Additional correspondence with residents and businesses adjacent to the PR will be held in advance of construction commencement to discuss potential specific impacts to the property or business. Contact information for a designated Enbridge Gas representative should be available to address questions and concerns during construction. Engagement and consultation has been initiated and should continue with municipal personnel. • Approvals should be obtained from the municipalities for all road crossings. The contractor must adhere to Enbridge Gas's requirements for road crossings as outlined in the Enbridge Construction and Maintenance Manual (October 27, 2021).	Community services and infrastructure appear to have additional capacity to absorb potential increased temporary demands that may result from the Project, if not within the Hidden Valley directly then in the Town of Huntsville. Given the available capacity of the local community services and infrastructure, along with the implementation of the mitigation and protective measures, no significant adverse residual impacts on community services and municipal infrastructure are anticipated.

Feature Types	Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	Infrastructure *Section 4.5.4*	A utility transmission line is located in the Study Area. A variety of buried and overhead utilities (e.g., telephone, low-voltage hydroelectric, fiber optic, watermains) are expected to be located in road allowances throughout Study Area. Potential to damage and service interruptions to infrastructure and compromise the safety of workers and surrounding residents may result from interactions with rail, roads, hydrocarbon pipelines, hydroelectric facilities and buried and overhead utilities.	• Prior to the commencement of construction Enbridge Gas should obtain subsurface utility engineering data for the PR. The contractor should be responsible for locating existing pipelines and utilities. Machine operators will be informed where electrical transmission lines are present overhead. Lines that may interfere with the operation of construction equipment will be identified with warning poles strung together with rope and suspended red flags. In addition, all necessary permits and conditions of the utility's infrastructure will be met and abided by. Measures to mitigate induced voltage effects should be followed and are outlined in the Enbridge Construction and Maintenance Manual (October 27, 2021).	With the implementation of the mitigation and protective measures, no significant adverse residual impacts on infrastructure are anticipated.
	Culture, Tourism and Recreational Facilities *Section 4.5.5*	Construction of the Project may temporarily interfere with the use of Hidden Valley Recreational Lifestyle and Resort Area and surrounding recreational facilities Potential impacts include noise, dust and equipment exhaust associated with construction activity. Construction activities will temporarily affect the aesthetic landscape of the construction area. Potential safety concerns exist due to the proximity of construction activities to the facilities.	• Construction barricades should be erected at all areas of construction activity where recreational users may be present. • Other mitigation and protective measures for noise, dust and equipment exhaust, aesthetics and safety are outlined in row Section 4.5.1 'Demographics' and row Section 4.5.3 'Community Services and Municipal Infrastructure'.	With the implementation of the mitigation and protective measures, no significant adverse residual impacts on infrastructure are anticipated.

Feature Types	Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	Air Quality and Noise *Section 4.5.6*	Residential, and business properties may experience noise, dust and equipment exhaust associated with construction activity.. During operation, no substantial air or noise emissions are anticipated to occur.	• During construction, motorized construction equipment should be equipped with appropriate mufflers and silencers as available. Company and construction personnel should avoid excessive idling of vehicles; vehicles and equipment should be turned off when not in use unless required for operation. To the greatest extent practical, activities that could create noise should be restricted to daylight hours and adhere to local noise by-laws. Sources of continuous noise, such as portable generators, should be shielded or located so as to reduce disturbance to residents and businesses. • The contractor should implement site practices during construction that are in line with the Environment Canada document 'Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities' (Cheminfo Services Inc. 2005), which may include: – Maintaining equipment in compliance with regulatory requirements – Covering loads of friable materials during transport – Dust suppression of source areas – Watering for dust control must not result in the formation of puddles, rutting by equipment or vehicles, the tracking of mud onto roads or the siltation of watercourses.	With the implementation of the mitigation and protective measures, no significant adverse residual impacts from air quality and noise are anticipated.
	Indigenous Land Use and Traditional Knowledge Section 4.5.7	Impacts on Indigenous Land Use, Indigenous Knowledge, and Indigenous interests are still being determined. The Environmental Report will be provided to Indigenous communities for the review and comment. Upon their review, Enbridge Gas will work with Indigenous communities to better understand potential impacts and associated mitigation measures.		
	Land Use Designations *Section 4.5.8*	Natural gas pipelines and their associated facilities/structures are permitted land uses, and there are no proposed changes to land use. Therefore no impacts are anticipated.	• As no change in the proposed land use will occur, and thus, no impacts to land use will occur, no mitigation or protective measures are recommended.	As no impacts are anticipated, no net impacts will occur.
	Landfills and Contaminated Sites *Section 4.5.9*	Improper disposal of waste material generated during construction may result in contamination to soil, groundwater, and/or surface water resources on and off the construction site. Litter generated during construction may also become a nuisance to adjacent properties if not contained. The closest landfill site (Oxtongue Lake Waste Disposal Site) is approximately 20 km east of the PR. The PR is not expected to cross or be in the vicinity of lands that may have contaminants of concern. The application of road salt for de-icing activities along the roadways in the Study Area represent a potential source of contamination. Assumptions on the potential for landfill gas to impact the Project, as outlined in the D-4 Guideline, are made by assessing available information including proven soil-gas concentrations.	• All construction wastes should be disposed of in accordance with Enbridge Construction and Maintenance Manual (October 27, 2021). Additionally, Enbridge Gas should undertake responsible management of excess fill. When details on excess fill volumes are known, disposal locations should be determined, and appropriate permitting obtained. Suggested mitigation and protective measures include the following: – Waste materials, sanitary waste, and recycling transported off-site by private waste contractors licensed by the MECP. – Contractors required to remove their excess materials from the site. – Labelling and storage of hazardous and liquid wastes in a secure area that would contain material in the event of a spill. – Implementation of a waste management program consisting of reduction, reuse, and recycling of materials. – Should contaminated soils be encountered during construction, Enbridge Gas should implement their Suspect Soils Program (see Enbridge Construction and Maintenance Manual (October 27, 2021) for further details). • Should excess soil be generated on-site during construction activities that will require off-site management, or if contaminated soils are suspected (e.g., if observed material contains anthropogenic substances, petroleum hydrocarbons odours/staining, and debris/waste), representative soil samples should be collected in accordance with O. Reg. 406 /19 and submitted for chemical analysis to determine management options and appropriate handling and health and safety guidelines. • Soils that cannot be reused on site may be reused off-site in accordance with O. Reg. 406/19.	With the implementation of the mitigation and protective measures, no significant adverse residual impacts from landfills and contaminated sites are anticipated.

Feature Types	Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	Archaeological Resources *Section 4.5.10*	The Stage 1 AA, aided by a property inspection has determined that approximately 8.1% of the study area retains potential for the recovery of archaeological resources and requires Stage 2 assessment while approximately 91.9% has either been previously assessed, previously disturbed, or does not retain archaeological potential.	• Based on the findings of the Stage 1 AA, a Stage 2 AA is required for any portion of the Project's anticipated construction which impacts an area of archaeological potential. A Stage 2 AA is not required for any portion of the Project's anticipated construction which impacts an area of low to no archaeological potential. The Stage 2 AA will be undertaken by a licensed archaeologist. • The results of the Stage 2 AA will provide recommendations for further assessment, protection, and mitigation of archaeological resources, if any. Where feasible for the project, archaeological sites that are determined to retain further cultural heritage value and interest should be mitigated in whole or in part by avoidance and protection/preservation measures. Where avoidance and protection/preservation measures are not feasible, archaeological resources may be mitigated in whole or in part by excavation. • For Indigenous archaeological resources retaining further cultural heritage value or interest and which may be subject to impact by the Project, Stage 3 AA and Stage 4 archaeological mitigation options will be evaluated in discussions with interested Indigenous communities. Further stages of AA, if required, should be completed as early as possible during the design phase of the project, and prior to the completion of detailed design and any ground disturbing activities.	With the implementation of the AA(s) and mitigation measures, including avoidance and protection/preservation (where feasible) and excavation, no significant adverse residual impacts on archaeological resources are anticipated.
	Built Heritage Resources and Cultural Heritage Landscapes *Section 4.5.11*	The completion of the Checklist included the identification of one indicator of CHVI. However, based on the nature of the Project and the anticipated impacts, a heritage memo will be prepared to confirm that no additional technical studies are required at this time.	Prior to construction, a heritage memo will be undertaken. This memo will include the findings of the checklist, as well as an explanation of the Project's lack of direct impacts to potential heritage properties and the resulting recommendation for no further cultural heritage studies at this time.	Based on the limited impacts anticipated from the Project scope, no impacts on built heritage resources or cultural heritage landscapes are anticipated.
	Indigenous Interests *Section 4.5.12*	The proposed Project may impact Treaty and Aboriginal rights and traditional uses, including aboriginal archaeological resources. As noted above, impacts on Impacts on Indigenous Land Use, Indigenous Knowledge, and Indigenous interests are still being determined. The Environmental Report will be provided to Indigenous communities for the review and comment. Upon their review, Enbridge Gas will work with Indigenous communities to better understand potential impacts and associated mitigation measures.		

6 Cumulative Effects Assessment

The recognition of cumulative effects assessment as a best practice is reflected in many regulatory and guidance documents. Regarding the development of hydrocarbon pipelines in Ontario, the *OEB Environmental Guidelines* (2016) notes that cumulative effects should be identified and discussed in the ER.

Building upon the intent of the *OEB Environmental Guidelines* (2016), the OEB has specified that only those effects that are additive or interact with the effects that have already been identified as resulting from the project are to be considered under cumulative effects. In such cases, it will be necessary to determine whether these effects warrant mitigation measures. The cumulative effects assessment has been prepared with consideration of this direction from the OEB.

6.1 Methodology

The cumulative effects assessment (CEA) describes the potential cumulative effects resulting from the interaction of residual effects of constructing and operating the proposed pipeline with the effects of other unrelated projects. The other projects assessed are those that are either existing or approved and that have a high likelihood of proceeding.

Cumulative effects include the temporal and spatial accumulations of change that occur within an area or system due to past, present, and future activities. Change can accumulate in systems by either an additive (i.e., cumulative) or interactive (i.e., synergistic) manner. Positive residual effects have not been assessed in the CEA.

By applying the principles of avoidance, minimization, and compensation to limit project-specific effects, potential adverse residual effects on environmental and socio-economic features have been greatly limited before accounting for the effects of other unrelated projects.

The cumulative effects assessment methodology is designed to evaluate and manage the additive and interactive effects from the following sources:

- Existing infrastructure, facilities, and activities as determined from available data sets
- The proposed pipeline
- Future activities where the undertaking will proceed, or has a high probability of proceeding

Although rare in occurrence, it is plausible that accidents or emergency events may arise due to an unforeseen chain of events during the Project’s construction or operational life. Due to the rarity and magnitude of such events, they have not been

assessed here, as they are extreme in nature when compared to the effects of normal construction and operation activities and require separate response plans.

6.2 Study Boundaries

Spatial

To make assumptions about the magnitude and probability of effects, an approximate 100 m boundary around the PR was used for the cumulative effects assessment. The 100 m boundary has been found, through previous experience with pipeline construction, to be appropriate for the most commonly encountered net effects.

Temporal

The temporal boundaries for the cumulative effects assessment reflect the nature and timing of project activities, and the availability of information surrounding future projects with a high probability of proceeding. The project schedule identifies three key milestone activities:

- ER and technical design – 2022
- Construction – Q3 of 2023
- Operation and Maintenance – 2023 to 2073*

**Fifty years of operation is used as an assumption, although the pipeline may be operational beyond fifty years.*

Based upon these milestone activities, two time periods were selected for evaluation: Q4 of 2022 to 2023 and 2028. The years 2022 and 2023 were selected to represent the construction period, and the year 2028 was selected to represent the operation and maintenance period. Forecasting beyond 2028 increases the uncertainty in predicting whether projects will proceed, and the effects associated with these projects.

6.3 Project Inclusion List

The project inclusion list was developed by reviewing publicly available information for projects and activities with the potential for effects to interact with the identified effects of the proposed pipeline within the spatial and temporal study boundaries. The following resources were reviewed:

- Impact Assessment Agency of Canada, Canadian Impact Assessment Registry (IAAC 2022)
- Government of Ontario, Environmental Assessment Projects by Category (Government of Ontario 2022)
- MTO, Ontario’s Highways Program Interactive Map (2016-2024) (MTO 2020)

- Canadian Energy Regulator, Major Facilities Applications (CER 2021)
- Town of Huntsville, Major Construction Projects – Projects and Closures (Town of Huntsville 2022)
- OEB Applications Currently Before the Board (facilities applications only) (OEB 2022)
- Information solicited through public consultation

Based on the review of publicly available resources, no projects are proposed in the Study Area. There are several approved developments mainly concentrated in the downtown Huntsville area, however, given the distance of the Study Area, projects located in downtown Huntsville are not expected to interact with the residual effects of the Project and therefore there are no cumulative effects anticipated. No projects were identified in the Study Area.

Even though no projects were identified in the Study Area, it is assumed that on-going improvements, upgrades, and maintenance to municipal infrastructure such as bridges, culverts, drains, or roads may occur within the spatial and temporal study boundaries.

6.4 Analysis of Cumulative Effects

The ER considers the potential impacts of the project on specific features and conditions and proposes mitigation and protective measures to eliminate or reduce the potential impacts. The CEA evaluates the significance of residual impacts (after mitigation) of the Project along with the effects of other unrelated projects.

6.4.1 Construction – Q4 2022 / early 2023

Residual project impacts which may occur during project construction are outlined in Sections 4.3-4.5 to consider the additive and interactive effects at their maximum intensity, the cumulative effects assessment assumes that construction of other unrelated projects and the proposed pipeline construction will occur concurrently.

Potential cumulative effects resulting from the proposed pipeline construction and the concurrent projects are additive effects on soil, vegetation, wildlife and wildlife habitat, air quality, the acoustic environment and traffic.

However, Enbridge Gas will continue consultations with District Municipality of Muskoka and the Huntsville Town municipal staff to reduce the potential for construction activities that may lead to cumulative effects and coordinate plans to reduce resultant effects during construction. Provided that construction activities implement similar mitigation and protective measures as those recommended for pipeline construction, adverse cumulative effects of either biophysical features or the socio-economic environment are predicted to be of low to moderate probability and magnitude, short duration (2-3

months), and reversible. Therefore, adverse residual cumulative effects during construction, are not anticipated to be significant.

Soil

Soil erosion and reduced soil capability is a potential residual effect associated with construction of the project. Mitigation and protective measures for soil are outlined in Section 4.3.5. Provided that concurrent projects follow mitigation measures similar to those outlined in this report, the probability of erosion control failure occurring concurrently is low and based on the nature of the proposed projects the magnitude of such an event would be low. Soil in the road easement has been previously disturbed, and while the current project will effect soil capability the geographic extent will be limited and the magnitude of impact would be low. As such, adverse cumulative residual effects on the natural environment from erosion and on previously degraded soil capability from construction are not anticipated to be significant.

Vegetation

Where there is natural vegetation within or adjacent to the PR, potential impacts include the removal of native vegetation, and indirect effects such as dust, erosion, and accidental spills. However, with the implementation of the mitigation and protective measures outlined in this report, such as 1:1 vegetation replanting, and provided that concurrent projects follow mitigation measures similar to those outlined in this report, adverse cumulative residual effects on vegetation are not anticipated to be significant.

Wildlife and Wildlife Habitat

Potential residual effects on wildlife and wildlife habitat associated with construction of the project are accidental direct mortality, habitat removal and sensory disturbance. Mitigation and protective measures for wildlife and wildlife habitat are outlined in Section 4.4.4. In the event of project-related wildlife deaths, the NDMNRF should be contacted. If mortality occurs between concurrent projects for similar species, the Ministry will be able to note the occurrences and coordinate with Enbridge Gas to adjust construction activities and/or mitigation. Potential cumulative effects resulting from sensory disturbance (i.e., noise, air pollution and dust) are discussed below.

Provided that the above measures are undertaken, and provided that concurrent projects follow mitigation measures similar to those outlined in this report, adverse cumulative residual effects on wildlife and wildlife habitat should be of low probability and will be mitigated as coordinated through the MECP. Therefore, adverse cumulative residual effects on wildlife and wildlife habitat are not anticipated to be significant.

Air Quality and Acoustic Environment

Potential residual effects on air quality associated with construction of the project and concurrent projects are an increase in noise and air pollutants from operation of

vehicles and equipment, and an increase in dust from construction activities. Mitigation and protective measures for air quality and the acoustic environment are outlined in Section 4.4.5. Provided that the concurrent projects follow mitigation measures similar to those outlined in this report, cumulative effects should be of low magnitude and reversible. Therefore, adverse residual cumulative effects on air quality and the acoustic environment are not anticipated to be significant.

Traffic

An increase in traffic is anticipated during the potential concurrent construction of the distribution pipeline and concurrent projects. A traffic management plan will be employed during installation of the pipeline, as the install will occur within the road allowance. Provided that concurrent projects follow mitigation measures similar to those outlined in this report, cumulative effects should be of low magnitude and reversible. Therefore, adverse residual cumulative effects on traffic are not anticipated to be significant.

6.4.2 Operation and Maintenance – Year 2023 to 2028

Development and maintenance activities which have a probability of proceeding during operation and maintenance of the project include:

- Road works: Future road rehabilitation and resurfacing.
- Water works: Future installation of water and wastewater pipelines
- Pipeline construction and maintenance: Future pipeline construction and maintenance of existing hydrocarbon pipelines
- Completing integrity digs, as needed, to confirm and field verify findings from in-line inspections and to complete maintenance work.

Operation and maintenance of the proposed pipeline will have relatively little impact on the environment. On a day-to-day basis there is no operational noise that is anticipated to occur following Project construction. Should an integrity dig or station maintenance be necessary, this will be the only anticipated instance when the Project would have potential temporary impacts during its operation.

No other municipal road, sewer or watermain works, District Municipality of Muskoka or Huntsville Town projects were identified that are scheduled to take place during the timeframe of the construction and operation of the pipeline. Engagement and consultation will continue with municipal staff, developers and other utilities that intersect with the proposed pipeline to identify new projects that may occur concurrently with the proposed pipeline operation. These could include Town of Huntsville road and infrastructure upgrades and maintenance programs including other utility operation and maintenance activities. There is the potential that cumulative effects may occur for

residual impacts as outlined in the ER related to accidental spills, erosion and sediment control and socio-economic elements.

Any operation and maintenance activities undertaken by Enbridge Gas will be completed in co-ordination of the Enbridge Gas Environmental Planning Team and will consider any potential impacts on natural heritage and socio-economic environment. Appropriate mitigation measures will be developed and implemented based on the proposed maintenance work and all necessary agency permits and approvals will be secured, as required. Given the limited scale of impact of any potential operation and maintenance activities, it is anticipated that residual impacts will be minimal and that should any interaction occur with other projects, adverse residual effects are not anticipated to be significant.

6.5 Summary of Cumulative Effects

The potential cumulative effects of the project were assessed by considering development that has a high probability of proceeding just prior to or concurrent with construction of the project. A 100 m boundary around the PR was used to assess the potential for additive and interactive effects of the project and other developments on environmental and socio-economic features.

The cumulative effects assessment determined that, provided the mitigation and protective measures outlined in this report are implemented and that concurrent projects implement similar mitigation and protective measures, potential cumulative effects are not anticipated to occur, or if they do occur are not anticipated to be significant.

7 Monitoring and Contingency Plans

7.1 Monitoring

The primary objective of compliance and effects monitoring is to check that mitigation and protective measures are effectively implemented and to measure the impacts of activities associated with construction on environmental and socio-economic features. Ultimately, the knowledge gained from monitoring is used to avoid or reduce issues which may arise during construction of subsequent pipeline projects.

Previous pipeline construction experience, and a review of post-construction monitoring reports from other projects, indicates that impacts from pipeline construction are for the most part temporary. The mitigation and protective measures to eliminate or reduce impacts are well known and have been shown to be effective. Enbridge Gas should adhere to the following general monitoring practices:

- Trained personnel should be on-site to monitor construction and should be responsible for checking that the mitigation and protective measures and monitoring requirements in the ER are executed. Enbridge Gas should implement an orientation program for inspectors and contractor personnel to provide information regarding Enbridge Gas' environmental program and commitments, as well as safety measures.
- Recommendations and commitments made in this ER and other applicable permits and reports should be incorporated into an EPP detailing construction activity. The EPP should also include site and feature specific mitigation. The EPP should become part of the contract specification with the contractor selected to construct the project, as noted in Section 5.8.4 of the OEB Environmental Guidelines (2016).
- A walking inspection of the entire PR should be completed three (3) months and 15 months after the in-service date to determine whether areas require further rehabilitation or as required by OEB conditions of approval.

The following sections list specific environmental monitoring activities recommended for the Project.

7.1.1 Exposed Soils

Where soils are exposed for construction activities, potential effects may include surface soil erosion and sedimentation of watercourses. Improper water discharge can lead to erosion and sedimentation. Monitoring of potential effects on exposed soils should occur by Enbridge Gas's on-site inspection team.

7.1.2 Water Wells

If blasting is required for trenching, well owners within 100 m of the preferred pipeline trench should be provided the option to participate in a Water Well Monitoring Program prior to construction to determine preconstruction quality and quantity conditions. Where blasting is not required, wells within a minimum of 10 m of the trench, or as recommended by future hydrogeological studies, will qualify for participation in the monitoring program. The water quality and quantity, and levels of participating resident water wells should be monitored in the event a complaint or concern is brought forward.

The proposed monitoring program should include delivery of notification letters to all potential groundwater users within a certain distance of the preferred route. Due to well access limitations and resident's willingness to participate in the Water Well Monitoring Program, it will not be possible to monitor every well within the selected distance. Typically, response rates for this type of request ranges between 10 and 20 percent. The notification letter will detail the proposed pipeline construction and the potential risk of well interference, as well as include appropriate contact information for Enbridge Gas.

Landowner complaints regarding well interference received during or after the construction period, whether the landowner is a participant in the Water Well Monitoring Program or not, should be investigated individually as described in Section 7.2.2.

7.1.3 Vegetation

During pre-construction clearing and construction, the Inspector should monitor the limits of clearing so as not to damage adjacent vegetation. The Inspector should identify any trees that pose a potential hazard and may require removal. If clearing is to be completed during the bird nesting season, a breeding bird survey and bat should be completed to identify evidence of nesting, bat roosts and areas to be avoided.

Establishment of vegetative cover should be monitored. Sediment control fencing and other protective measures should be retained in place until cover is fully established. Should any new trees be planted as part of compensation plans, a year following construction, any planted trees should be inspected for survival. In areas of severe dieback or in areas serving important environmental functions (e.g., riparian or slope cover), dead and diseased trees should be replaced. Enbridge Gas's inspection program should include annual monitoring until the new plantings are healthy and established.

7.1.4 Wildlife

Should the presence of SAR be identified within the Study Area, construction monitoring will need to be undertaken. The exact nature of monitoring will be determined in consultation with the MECP.

7.1.5 Residents, Recreational Facilities and Businesses

Construction activities may impact directly affected landowners and surrounding residents and businesses. During construction, a designated Enbridge Gas representative should be available to monitor and respond to requests and concerns voiced by residents and business owners. Landowners affected by construction should be notified in advance of construction activities in their area, as feasible. The notification should provide the contact information for a designated Enbridge Gas representative.

Enbridge Gas's on-site inspection team should also monitor the contractors' implementation of the Traffic Management Plan to see that site access to residences and businesses has been maintained and that traffic is not being unnecessarily interrupted.

While efforts will be undertaken to reduce impacts, a comment tracking system should also be implemented. An Enbridge Gas representative should record the time and date of calls, the nature of the concern, the corrective action taken, and the time and date of follow-up contact.

Following completion of construction, Enbridge Gas should contact residents and businesses along the easement to continue ongoing communications where necessary. During the first 15 months particular attention should be paid to monitoring and documenting impacts associated with construction of the proposed pipeline

7.1.6 Municipal Roads

Roads affected by pipeline construction should be restored to their pre-construction conditions to the satisfaction of the appropriate authorities' engineers. Road Superintendents should be given an opportunity to inspect any repairs or modifications. Once re-established, the crossing location of roads should be monitored following heavy rain events, and a year after construction following spring runoff, to check that no road subsidence or major rutting has occurred and that the drainage system is functioning properly.

7.2 Contingency

Contingency planning is necessary to prevent a delayed or ineffective response to unexpected events or conditions that may occur during construction of the proposed pipeline. An essential element of contingency planning is the preparation of plans and procedures that can be activated if unexpected events occur. The absence of contingency plans may result in short- or long-term environmental impacts and possibly threaten public safety.

The following unexpected events require contingency planning during construction: private water well complaint, contaminated sites, watercourse sedimentation, inadvertent returns during HDD, accidental spills, and unexpected finds. Although unexpected problems are not anticipated to occur during construction, Enbridge Gas and the pipeline contractor should be prepared to act. Construction personnel should be made aware of and know how to implement contingency measures.

7.2.1 Private Water Well Complaint

Enbridge Gas's Private Water Well Complaint contingency plan should be implemented in the unlikely event that residential well complaints arise during or after construction. The depth and existing condition of a given well is a significant factor in whether the well may be adversely impacted by nearby construction activities. The objective of any investigation related to interference of private water supply is to respond to the resident expediently and courteously and ultimately arrive at a resolution that is agreeable to both Enbridge Gas and the well owner.

In the event a resident registers a complaint with Enbridge Gas regarding a reduction of well water quality and/or quantity, Enbridge Gas will offer to arrange immediate provision of temporary potable or non-potable water, depending on the resident's needs, until the matter is resolved. Enbridge Gas will also offer to have a qualified hydrogeologist complete a well inspection, subject to the well owner granting permission. The hydrogeologist will visit the site to discuss the complaint with the resident and inspect the well and related complaint to the extent possible. The hydrogeologist will then provide advice to Enbridge Gas on further assessment if required, or advice on possible remedial options should they determine that the complaint may be related to the construction works.

7.2.2 Contaminated Sites (Suspect Soils Program)

Efforts have been made to identify potentially contaminated sites in the vicinity of the PR through a review of readily available information. Through circulation of the ER, the MECP will have an opportunity to review the PR if other unknown areas of potential contamination may exist.

Regardless, the potential exists for unknown material to be encountered during construction. If evidence of potential contamination is found, such as buried tanks, drums, oil residue or gaseous odour, construction should cease and Enbridge Suspect Soil Program should be implemented.

Enbridge's Suspect Soil Program will be implemented if contaminated soils that are encountered during construction.

If potentially contaminated sites are encountered, the on-site contractor supervisor and owner representative should be notified immediately, as well as the following contact:

- Enbridge Gas Inc., Environment Department

7.2.3 Accidental Spills

During construction, an accidental spill may occur. The impact of the spill will depend upon the magnitude and extent of the spill, and the environmental and socio-economic conditions in which it takes place. Upon release of a hydrocarbon-based construction fluid, Enbridge Gas should immediately determine the magnitude and extent of the spill and rapidly take measures to contain it. Release of sediment should also be treated as a potential spill depending on the magnitude and extent. Spills should be immediately reported to Enbridge Gas's on-site inspection team and Environment Department. If necessary, the MECP Spills Action Center should be notified at 1-800-268-6060 and/or the local/regional municipality (if required). If requested through engagement and consultation, Indigenous communities and/or local/regional municipality identified on the Project Contact List should be notified of reportable spills.

A Spills Response Plan should be developed, reviewed with personnel, and posted in site trailers. Spill containment equipment should be readily available, especially near watercourses. Personnel should be trained in the use of spill containment equipment.

7.2.4 Unexpected Finds: Archaeological or Heritage Resources

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the Ontario Heritage Act (Government of Ontario 1990c). The proponent or person discovering the archaeological resources must cease alteration of the site immediately and contacting Indigenous communities as well as the licensed archaeologist. engage to carry out archaeological fieldwork, in compliance with Section 48(1) of the Ontario Heritage Act (Government of Ontario 1990c). A site-specific response plan should then be employed following further investigation of the specific find. The response plan would indicate under which conditions the ground disturbance activity in the find location may resume.

The Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33 (Government of Ontario 2002) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Government and Consumer Services (1-800-889-9768).

Enbridge Gas is committed to keeping interested Indigenous communities engaged on any unearthed artifacts and/or human remains discovered in relation to their projects.

8 Conclusion

The environmental study investigated data on the physical, biophysical, and socio-economic environment along the PR. In the opinion of Stantec, the recommended program of supplemental field studies in spring/summer 2022, mitigation and protective measures, and contingency measures are considered appropriate to protect the features encountered. Monitoring will assess whether mitigation and protective measures were effective in both the short and long term.

With the implementation of the recommendations in this Report, on-going communication and consultation, and adherence to permit, regulatory and legislative requirements, potential adverse residual environmental and socio-economic impacts of the Project are not anticipated to be significant.

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Appendix A:
Figures

Stantec

Legend

- Preferred Route
- Study Area (500m)
- Unknown Transmission Line
- Watercourse (Intermittent)
- Watercourse (Permanent)
- Waterbody
- Wetland - Not evaluated per Ontario Wetland Evaluation System

0 150 300 Meters

1:10,000 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2022.
3. Orthoimagery © First Base Solutions, 2022. Imagery Date, 2008.

Project Location
District Municipality of Muskoka

160925135 REV1
Prepared by KB on 2022-07-26
Technical Review by SPE on 2022-04-28

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
1

Title
Study Area

645000
646000
647000
5025000
5024000
HIGHWAY 60
HARP LAKE ROAD
GRASSMERE ROAD
GRASSMERE RESORT ROAD
MORGANS ROAD
SKYLINE DRIVE
HIDDEN VALLEY ROAD
WOODLAND DRIVE
LAKEVIEW CRESCENT
CHALET CRESCENT
VALLEY ROAD
TURNER DRIVE
SKI CLUB ROAD
ST GEORGES COURT
ST ANDREWS CIRCLE
TREETOPS LANE
DEERHURST HIGHLANDS DRIVE
DEERHURST DRIVE
PEN LAKE POINT ROAD
Peninsula Lake
UT
N

Stantec

Legend
- Preferred Route
- Study Area (500m)
- Unknown Transmission Line
- Watercourse (Intermittent)
- Watercourse (Permanent)
- Waterbody
- Wetland - Not evaluated per Ontario Wetland Evaluation System

0 150 300 Meters
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Notes
1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2022.
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Project Location
District Municipality of Muskoka

160925135 REV1
Prepared by KB on 2022-07-26
Technical Review by SPE on 2022-04-28

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
2

Title
Preferred Route

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Appendix B:
Engagement and Consultation

Appendix B1: Letter of Delegation

Melanie Green
Senior Advisor, Community & Indigenous Engagement,
Eastern Region Operations
Enbridge Inc.

400 Coventry Rd, Ottawa, ON
Cell: 613.297.4365
melanie.green@enbridge.com

July 13th , 2022

Chief Keith Knott
Curve Lake First Nation
22 Winookeedaa Road
Curve Lake, Ontario K0L1R0

SUBJECT: Hidden Valley Community Expansion Project

Dear Chief Knott,

I am following up on the correspondence from Chief Emily Whetung on June 15th, 2022 on the proposed Hidden Valley Community Expansion Project ("Project") and providing a general summary of the Project, potential impacts, and mitigations as requested.

Project Summary:

Enbridge Gas Inc. (Enbridge Gas) is proposing to construct approximately 5KM of Nominal Pipe Size ("NPS") 2 Polyethylene ("PE") natural gas distribution pipeline to service community of Hidden Valley within the city of Huntsville.

In response to your community's initial request for a summary statement of potential Project impacts, please find information on the following areas of interest.

- Drinking water - No impacts are anticipated to drinking water as the installation depth of natural gas pipelines ranges from 0.9m to 1.2m (and up to 2.5m for Horizontal Directional Drilling (HDD) under watercourse crossings); however, the Environmental Assessment Report will identify if there is a need for a water well monitoring program on individual wells in vicinity of the chosen pipeline route.
- Endangerment to fish and wild game - Currently, no watercourse crossings have been identified within the Project area. Should any previously unknown watercourse crossing be identified HDD will be the chosen method for watercourse crossings to reduce impact to fish and fish habitat. The Department of Fisheries and Oceans' Measures to Protect Fish and Fish Habitat, as well as other best management practices, will be used during work in vicinity of watercourses or when utilizing HDD under watercourses. As the pipeline will be mainly within existing municipal right-of-way, there are no new impacts to wildlife/wild game anticipated.

- Impact on Aboriginal heritage and cultural values - The Stage 1 Archaeological Assessment is currently in development. The potential for cultural heritage features within the study are and along the preferred route will be evaluated in the Stage 1 report. Enbridge will submit the draft Stage 1 report for your

Melanie Green
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Eastern Region Operations
Enbridge Inc.

400 Coventry Rd, Ottawa, ON
Cell: 613.297.4365
melanie.green@enbridge.com

review and comment prior to submission to the MHSTCI. we look to your expertise on identifying potential Aboriginal heritage and cultural values in the Project area.

- Endangered species - As the pipeline will be mainly within existing municipal right-of-way, and the area in question is largely developed, impacts to Species at Risk are not anticipated and mitigation measures will be implemented that will avoid potential impacts.

- Lands; savannas etc. - As the pipeline will be mainly within existing municipal right-of-way, and the area in question is largely developed, impacts are not anticipated.

Indigenous Burial or Archaeological Sites in the Proposed Project Area

Should previously undocumented burial or archaeological resources be discovered, they may considered new archaeological sites subject to Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990c). Enbridge Gas will cease alteration of the site immediately, notify Curve Lake First Nations, other interested First Nations and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48(1) of the Ontario Heritage Act, RSO 1990, c O.18. A site-specific response plan would then be employed following further investigation of the specific find in consultation with Curve Lake First Nation and other interested First Nations. The response plan would indicate under which conditions the ground disturbance activity in the find location may resume.

We will be providing a draft Stage 1 archaeology report for your review and comment when completed. We would appreciate any additional knowledge you could share regarding the Project area with respect to potential burial and archaeological sites.

Mitigation measures for this Project may include avoiding vegetation clearing during mitigatory bird nesting season, avoiding in-stream activity by using HDD, implementing erosion and sediment control measures, and cleaning up and restoring construction areas as soon as possible after construction. Beyond the above, more specific mitigation measures can be confirmed once the preferred route is selected and information/input is received from Indigenous communities and stakeholders. At this stage, the environmental study is ongoing, and the results will be outlined in the draft Environmental Report.

As always, Enbridge recognizes that engagement and consultation is ongoing. As such, we continue to be interested in understanding, and working collaboratively to mitigate, the impacts this Project may have on Aboriginal and/or Treaty Rights. As well, should you have cultural heritage liaison available to join us in the field, please notify and we would be grateful for them to join us. We look forward to the knowledge sharing.

Melanie Green
Senior Advisor, Community & Indigenous Engagement,
Eastern Region Operations
Enbridge Inc.

400 Coventry Rd, Ottawa, ON
Cell: 613.297.4365
melanie.green@enbridge.com

As well, as for the filing fee, we are prepared to pay via credit card. We will be in touch to finalize this payment. Also, the correct **billing address** for invoices associated with the **Hidden Valley Community Expansion Project** is below and invoices must have the following information:

- Full Legal Enbridge Company Name – **Enbridge Gas Inc.**
- Project # 76-21-303
- Supplier Name and Remittance Address – Your complete company name, remit-to address and current contact information (email preferred)
- Invoice Date
- Invoice Number – must be unique
- Total Amount Due – Including currency
- Description of Goods or Services – Including all supporting documentation
- Enbridge Invoicing Contact Name – **Kahled El-Nader (Project Manager) and CC: Melanie Green (Senior Advisor, Indigenous Engagement)**

Billing Address

Kahled El-Nader (Project Manager)
Enbridge Gas Inc.
101 Honda Blvd, Markham, Ontario L6C 0M6
Attn: Hidden Valley Community Expansion Project
CC: Melanie Green (Senior Advisor, Indigenous Engagement)

Please advise if you require additional information on the topics discussed above and do not hesitate to contact me should you have any additional questions on the Project.

Miigwech,

Melanie Green
Senior Advisor, Community & Indigenous Engagement
Eastern Region Operations
Enbridge Inc.

Appendix B2: Project Contact List

AGENCIES	FIRST NAME	SURNAME	CATEGORY	ORGANIZATION	DEPARTMENT	POSITION	ADDRESS	CITY/TOWN	PROVINCE	POSTAL CODE	TELEPHONE	E-Mail
Elected Officials	Scott	Aitchison	Elected Officials	Government of Canada	Parry Sound-Muskoka	Member of Parliament	94 Hanes Road, Unit 2	Huntsville	ON	P1H 1M4	705-789-4640	scott.aitchison@parl.gc.ca
	Norm	Miller	Elected Officials	Province of Ontario	Parry Sound-Muskoka	Member of Provincial Parliament	26 James St	Parry Sound	ON	P2A 1T5	705-746-4266	norm.miller@pc.ola.org
Federal Agencies	Wesley	Plant	Federal Agencies	Environment and Climate Change Canada	Environmental Protection Operations - Ontario	Manager, Environmental Assessment Section	4905 Dufferin Street, 2nd Floor	Toronto	ON	M3H 5T4	416-739-4272	wesley.plant@canada.ca
	Anjala	Puvananathan	Federal Agencies	Impact Assessment Agency of Canada	Ontario Regional Office	Director	55 York Street, Suite 600	Toronto	ON	M5J 1R7	416-952-1575	anjala.puvananathan@canada.ca
	To whom it may concern			Transport Canada								EnviroOnt@tc.gc.ca
	To whom it may concern			Fisheries and Oceans Canada	Fish and Fish Habitat Protection Program			Burlington		L7S 1A1	1-855-852-8320	FisheriesProtection@dfo-mpo.gc.ca
Ontario Pipeline Coordination Committee	Zora	Crnojacki	Ontario Pipeline Coordinating Committee	Ontario Pipeline Coordinating Committee	Ontario Energy Board		2300 Yonge Street, 26th Floor, PO Box 2319	Toronto	ON	M4P 1E4	416-440-8104	zora.crnojacki@oeb.ca
	Helma	Geerts	Ontario Pipeline Coordinating Committee	Ontario Pipeline Coordinating Committee	Ministry of Agriculture, Food and Rural Affairs	Land Use Policy & Stewardship	1 Stone Road West, 3rd Floor SE	Guelph	ON	N1G 4Y2	519-546-7423	helma.geerts@ontario.ca
	James	Hamilton	Ontario Pipeline Coordinating Committee	Ontario Pipeline Coordinating Committee	Ministry of Heritage Sport Tourism and Culture Industries	Manager, Hertage Planning Unit	400 University Ave, 5th Floor	Toronto	ON	M7A 2R9	416-995-8404	james.hamilton@ontario.ca
	Tony	Difabio	Ontario Pipeline Coordinating Committee	Ontario Pipeline Coordinating Committee	Ministry of Transportation		301 St. Paul Street, 2nd Floor	St. Catharines	ON	L2R 7R4	905-704-2656	tony.difabio@ontario.ca
	Kourosh	Manouchehri	Ontario Pipeline Coordinating Committee	Ontario Pipeline Coordinating Committee	Technical Standards and Safety Authority		345 Carlingview Drive	Toronto	ON	M9W 6N9	416-734-3539	kmanouchehri@tssa.org
	Keith	Johnson	Ontario Pipeline Coordinating Committee	Ontario Pipeline Coordinating Committee	Ministry of Northern Development, Mines, Natural Resources and Forestry	Environmental Planning Team Lead (Acting)	Whitney Block Rm 5520, 99 Wellesley St W	Toronto	ON	M7A 1W3	705-313-6960	keith.johnston@ontario.ca
	Maya	Harris	Ontario Pipeline Coordinating Committee	Ontario Pipeline Coordinating Committee	Ministry of Municipal Affairs and Housing	Manager, Community Planning and Development East	777 Bay Street, 13th Floor	Toronto	ON	M5G 2E5	416-585-6063	maya.harris@ontario.ca
	Michael	Elms	Ontario Pipeline Coordinating Committee	Ontario Pipeline Coordinating Committee	Ministry of Municipal Affairs and Housing, Eastern Municipal Services Office	Manager, Community Planning and Development	8 Estate Lane	Kingston	ON	K7M 9A8	613-545-2132	michael.elms@ontario.ca
	Kathy	McDonald	Ontario Pipeline Coordinating Committee	Ontario Pipeline Coordinating Committee	Ministry of Environment, Conservation and Parks (MECP)	Supervisor, APEP	199 Larch Street, Suite 1101	Sudbury	ON	P3E 5P9	705-564-3273	kathy.mcdonald@ontario.ca

AGENCIES	FIRST NAME	SURNAME	CATEGORY	ORGANIZATION	DEPARTMENT	POSITION	ADDRESS	CITY/TOWN	PROVINCE	POSTAL CODE	TELEPHONE	E-Mail
					(Northern Regional Contact)							
	Ruth	Orwin	Ontario Pipeline Coordinating Committee	Ontario Pipeline Coordinating Committee	Ministry of the Environment, Conservation and Parks, Eastern	Air, Pesticides and Environmental Planning Supervisor	133 Dalton Avenue	Kingston	ON	K7L 4X6	613-549-4000	ruth.orwin@ontario.ca
	Cory	Ostrowka	Ontario Pipeline Coordinating Committee	Ontario Pipeline Coordinating Committee	Infrastructure Ontario (Environmental Management)	Environmental Specialist	1 Dundas Street West, Suite 2000	Toronto	ON	M5G 2L5	641-264-3331	cory.ostrowka@infrastructureontario.ca
	Debbie	Scanlon	Ontario Pipeline Coordinating Committee	Ontario Pipeline Coordinating Committee	Ministry of Environment, Conservation and Parks (Source Protection Program Branch)	Manager Approvals Section	40 St. Clair Av. W, 14th floor	Toronto	ON	M4V 1M2	647-627-5917	sourceprotectionscreening@ontario.ca
	Amy	Gibson	Ontario Pipeline Coordinating Committee	Ontario Pipeline Coordinating Committee	Ministry of Energy, Indigenous Energy Policy	Manager						amy.Gibson@ontario.ca
	~~Rosalind~~	~~Ashe~~	~~Ontario Pipeline Coordinating Committee~~	~~Ontario Pipeline Coordinating Committee~~	~~Ministry of Energy, Indigenous Energy Policy~~	~~Senior Advisor~~	-	-	-	-	-	~~rosalind.ashe@ontario.ca~~
Provincial Agencies	Andrew	Evers	Provincial Agencies	Ministry of Environment, Conservation and Parks	Environment Assessment Services	Manager (Acting)	135 St Clair Ave W	Toronto	ON	M4V 1P5	647-961-4850	andrew.evers@ontario.ca
	To whom it may concern		Provincial Agencies	Ministry of Environment, Conservation and Parks	Species at Risk Branch		40 St. Clair Ave. W., 14th Floor	Toronto, ON	ON	M4V 1M2		SAROntario@ontario.ca
	To whom it may concern		Provincial Agencies	Ministry of Environment, Conservation and Parks	Eastern Region				ON			eanotification.eregion@ontario.ca
	Jon	Orpana	Provincial Agencies	Ministry of Environment, Conservation and Parks	Environmental Assessment Branch	Environmental Resource Planner & EA Coordinator	135 St Clair Ave W, 7th Floor	Toronto	ON	K7M 8S5	613-561-8250	jon.orpana@ontario.ca
	Karla	Barboza	Provincial Agencies	Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI)	Heritage Planning Unit	Team Lead - Heritage (Acting)	400 University Ave, 5th Floor	Toronto	ON	M7A 2R9	416-660-1027	Karla.barboza@ontario.ca
	Jonathon	Wilkinson	Provincial Agencies	Ministry of Northern Development, Mines, Natural Resources and Forestry (NRF)	Indigenous Energy Policy	Senior Advisor (Acting)	77 Grenville Street, 6th Floor	Toronto	ON	M7A 2C1	705-313-3658	jonathon.wilkinson@ontario.ca
	Dawn	Palin Rokosh	Provincial Agencies	Ministry of Infrastructure	Planning and Implementation Branch	Director (Acting)	777 Bay Street, 4th Floor, Suite 425	Toronto	ON	M5G 2E5	416-277-7291	dawn.palin.rokosh@ontario.ca
	Michele	Doncaster	Provincial Agencies	Ministry of Agriculture, Food and Rural Affairs	Land Use Policy & Stewardship	Manager	1 Stone Road West, Ontario Government	Guelph	ON	N1G 4Y2	519-826-3117	michele.doncaster@ontario.ca

AGENCIES	FIRST NAME	SURNAME	CATEGORY	ORGANIZATION	DEPARTMENT	POSITION	ADDRESS	CITY/TOWN	PROVINCE	POSTAL CODE	TELEPHONE	E-Mail
							Building 3rd Floor SE					
	Helma	Geerts	Provincial Agencies	Ministry of Agriculture, Food and Rural Affairs	Land Use Policy & Stewardship	Policy Advisor	1 Stone Road West, 3rd Floor SE	Guelph	ON	N1G 4Y2	519-546-7423	helma.geerts@ontario.ca
	Drew	Crinklaw	Provincial Agencies	Ministry of Agriculture, Food and Rural Affairs	Land Use Policy & Stewardship	Policy Advisor	667 Exeter Road, Ontario Government Offices	London	ON	N6E 1L3	519-317-4493	drew.crinklaw@ontario.ca
	Peter	Makula	Provincial Agencies	Ministry of Transportation	Engineering Office- Eastern Region	Manager	1355 John Counter Blvd, Postal Bag Box 4000	Kingston	ON	K7L 5A3	613-545-4754	peter.makula@ontario.ca
	Sarah	Conway	Provincial Agencies	Ministry of Transportation	Policy, Planning and Agency Relations	Manager (Acting)	777 Bay Street, College Park 30th Floor, Suite 3000	Toronto	ON	M7A 2J8		sarah.conway@ontario.ca
	Dave	Brown	Provincial Agencies	Ministry of Northern Development, Mines, Natural Resources and Forestry (NRF)	Fish and Wildlife Services Branch	Director	300 Water St, 5th Floor N	Peterborough	ON	K9J 3C7	705-930-5211	dave.brown2@ontario.ca
	To whom it may concern		Provincial Agencies	Hydro One Networks Inc.								SecondaryLandUse@HydroOne.com
	Meaghan	Klassen	Provincial Agencies	Ontario Provincial Police	Research and Program Evaluation Unit	Administrator	777 Memorial Avenue, 1st Floor	Orillia	ON	L3V 7V3	705-329-6256	meaghan.klassen@opp.ca
Government Review Team For Aboriginal Information	Lise	Chabot	Government Review Team	Ontario Ministry of Indigenous Affairs	Ministry Partnerships Unit	Manager	160 Bloor Street East, Suite 400	Toronto	ON	M7A 2E6	416-325-4044	lise.chabot@ontario.ca
	Caroline	Vachon	Government Review Team	Crown-Indigenous Relations and Northern Affairs Canada	Treaties and Aboriginal Government	Correspondence Coordinator	10 Wellington Street	Gatineau	QC	K1A 0H4	819-360-2503	caroline.vachon2@canada.ca
Other Stakeholders	Ian	Nokes	Stakeholder	Ontario Federation of Agriculture	Ontario Federation of Agriculture	Policy Analyst	100 Stone Road West, Suite 206	Guelph	ON	N1G 5L3	519-821-8883 ext.253	ian.nokes@ofa.on.ca
	Brian	Currie	Stakeholder	Muskoka Federation of Agriculture	Muskoka Federation of Agriculture	President					905-909-0080	curriescorner@gmail.com

INDIGENOUS

TITLE	FIRST NAME	SURNAME	ORGANIZATION	POSITION	PHONE NUMBER	ADDRESS	CITY	PROVINCE	POSTAL CODE	E-MAIL
Grand Chief	Ted	Willams	Chippewas of Rama First Nation	Grand Chief	T: (705) 325-3611 F: (705) 325-0879	5884 Rama Road, Suite 200	Rama	ON	L0K 1T0	consultation@ramafirstnation.ca
	Cathy	Edney	Chippewas of Rama First Nation (WTFN)	Communications and Community Relations Manager	T: (705) 325-3611 F: (705) 325-0879	5884 Rama Rd, Suite 200	Rama	ON	L3V 6H6	cathye@ramafirstnation.ca
	Sharday	James	Chippewas of Rama First Nation (WTFN)	Community Consultation	T: (705)-325-3611 ext. 1633	5884 Rama Rd, Suite 200	Rama	ON	L3V 6H6	shardayj@ramafirstnation.ca
Grand Chief	Donna	Big Canoe	Chppewas of Georgina Island	Grand Chief	T: (705) 437-1337 F: (705) 437-4597	R.R. #2, N13	Sutton West	ON	L0E 1R0	donna.bigcanoe@georginaisland.com
Grand Chief	Emily	Whetung-MacInnes	Curve Lake First Nation (WTFN)	Grand Chief	T: (705) 657-8045, ext. 209 F: (705) 657-8708	22 Winookeedaa Road	Curve Lake	ON	K0L 1R0	emilyw@curvelake.ca
Grand Chief	Joanne	Sandy	Beausoleil First Nation (WTFN)	Grand Chief	T: (705) 247-2051 F: (705) 247-2239	Dock Ln	Penetanguishene	ON	L9M 1R3	bfnchief@chimnissing.ca
Grand Chief	Dave	Mowat	Alderville First Nation (Williams Treaties' First Nation, WTFN)	Grand Chief	T: (905) 352-2011 F: (905) 352-3242	11696 Second Line Rd PO Box 46	Roseneath	ON	K0K 2X0	dmowat@alderville.ca
Grand Chief	Laurie	Carr	Hiawatha First Nation (WTFN)	Grand Chief	T: (705) 295-4421 F: N/A	123 Paudash Street	Hiawatha	ON	K9J 0E6	chiefcarr@hiawathafn.ca
Grand Chief	Kelly	LaRocca	Mississaugas of Scugog Island (WTFN)	Grand Chief	T: (905) 985-3337 F: N/A	22521 Island Rd	Port Perry	ON	L9L 1B6	info@scugogfirstnation.com
Grand Chief	Remy	Vincent	Huron-Wendat Nation	Grand Chief		255, place Chef-Michel-Laveau	Wendake	QC	G0A 4V0	remy.vincent@wendake.ca

MUNICIPAL

FIRST NAME	SURNAME	CATEGORY	ORGANIZATION	DEPARTMENT	POSITION	ADDRESS	CITY/TOWN	PROVINCE	POSTAL CODE	TELEPHONE	E-Mail
Richard	Clark	Municipal	Town of Huntsville	Planning	Manager of Planning	37 Main St East	Huntsville	ON	P1H 1A1	705-789-1751 ext.2232	richard.clark@huntsville.ca
Denise	Corry	Municipal	Town of Huntsville	Administration	CAO	37 Main St East	Huntsville	ON	P1H 1A1	705-789-1751 ext.2356	denise.corry@huntsville.ca
Crystal	Paroschy	Municipal	Town of Huntsville	Legislative	Deputy Clerk	37 Main St East	Huntsville	ON	P1H 1A1	705-789-1751 ext. 2258	crystal.paroschy@huntsville.ca
Karin	Terziano	Elected Officials	Town of Huntsville	Town of Huntsville	Mayor	37 Main St East	Huntsville	ON	P1H 1A1	705-783-4301	mayor@huntsville.ca
Jonathan	Wiebe	Elected Officials	Town of Huntsville	Town of Huntsville	Chaffey Ward Councillor	37 Main St East	Huntsville	ON	P1H 1A1	705-783-2876	jonathan.wiebe@huntsville.ca
John	Klink	Elected Officials	District Municipality of Muskoka	Council	District Chair	70 Pine Street	Bracebridge	ON	P1L 1N3	(705) 645-2100	john.klink@muskoka.on.ca
Lisa	Marden	Municipal	District Municipality of Muskoka	Planning	Manager of Planning	70 Pine Street	Bracebridge	ON	P1L 1N3	(705) 645-2100 ext. 4396	lisa.marden@muskoka.on.ca
Amy	Back	Municipal	District Municipality of Muskoka	Administration	District Clerk						clerk@muskoka.on.ca

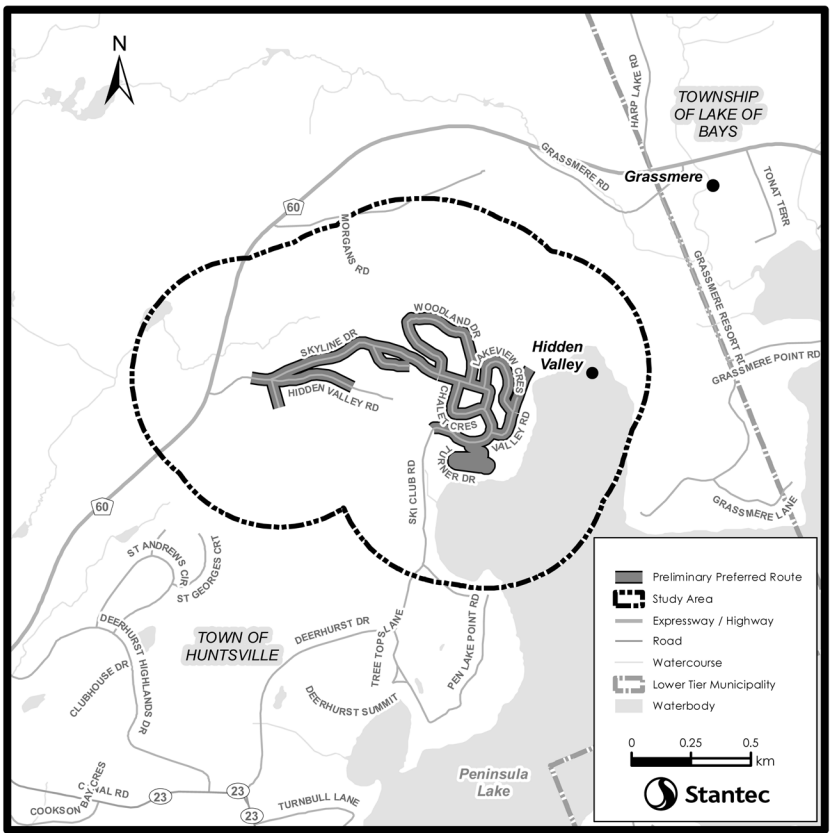
Appendix B3: Newspaper Notice

ENBRIDGE GAS INC.
NOTICE OF STUDY COMMENCEMENT AND VIRTUAL OPEN HOUSE

Hidden Valley Community Expansion Project

Enbridge Gas Inc. (Enbridge Gas) is proposing to construct the Hidden Valley Community Expansion Project to provide affordable natural gas to the Town of Huntsville.

Enbridge Gas is proposing to construct approximately 5 km of Nominal Pipe Size (NPS) 2 Polyethylene (PE) natural gas distribution pipeline to service the community of Hidden Valley in the Town of Huntsville. The pipeline will travel east along Hidden Valley Road from Highway 60, and along Skyline Drive to Ski Club Road. Other roads that may be connected off of Hidden Valley Road and Skyline Drive include Mount Pleasant Crescent, Slalom Drive, Woodland Court, Lakeview Crescent, Chalet Crescent, and Turner Drive.



The preliminary preferred route and ancillary facilities have been developed for purposes of an assessment of potential environmental and socioeconomic impacts and does not represent the final project scope/ design that will provide access to natural gas to end-use customers.

Consultation and engagement with Indigenous communities, landowners, government agencies, and other interested persons is an integral component of the planning process. As a result of the constantly evolving nature of the COVID-19 pandemic, a Virtual Open House will be held in place of an in-person Open House.

The Virtual Open House will be available for two weeks starting on June 20, 2022, and finishing on July 4, 2022, at https://www.solutions.ca/HiddenValleyEA/.

If you are unable to log onto the Virtual Open House between June 20 to July 4, please dial 613-784-2256 and leave a detailed message with your contact information and we will respond as soon as possible.

For any questions or comments regarding the proposed Hidden Valley Community Expansion Project, please reach out to:

Laura Hill, Environmental Scientist
Stantec Consulting Ltd.
Telephone: 613-784-2256
Email: Laura.Hill@stantec.com

Or visit the project website at:
https://www.Enbridgegas.com/HiddenValleyProject

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Appendix B4: Notification Letters

Stantec Consulting Ltd.
300W-675 Cochrane Drive, Markham ON L3R 0B8

June 3, 2022

Reference: Enbridge Gas Inc. – Hidden Valley Community Expansion Project, Notice of Study Commencement and Virtual Open House

Enbridge Gas Inc. (Enbridge Gas) is proposing to construct the Hidden Valley Community Expansion Project to provide affordable natural gas to residents in the vicinity of Hidden Valley Road in Huntsville, Ontario (the Project). The preliminary preferred[1] route and ancillary facilities will be constructed for the Project in the Town of Huntsville. Enbridge Gas is proposing to construct approximately 5 km of Nominal Pipe Size (NPS) 2 Polyethylene (PE) natural gas distribution pipeline to service the community of Hidden Valley in the Town of Huntsville. The pipeline will travel east along Hidden Valley Road from Highway 60, and along Skyline Drive to Ski Club Road. Other roads to be connected off of Hidden Valley Road and Skyline Drive may include Mount Pleasant Crescent, Slalom Drive, Woodland Court, Lakeview Crescent, Chalet Crescent, and Turner Drive.

For further details, please refer to the attached map.

As part of the planning process, Enbridge Gas has retained Stantec Consulting Ltd. (Stantec) to undertake an Environmental Study for the Project. The Environmental Study will fulfill the requirements of the Ontario Energy Board's (OEB) *Environmental Guidelines for the Location, Construction, and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 7th Edition* (2016).

An Environmental Report, summarizing the results of the Environmental Study, will accompany the Enbridge Gas application to the OEB as part of their Leave to Construct (LTC) application. It is anticipated that the Environmental Report for the study will be completed in August 2022, after which Enbridge Gas may file an LTC application. Construction is currently anticipated to begin in Summer 2023.

As an agency with jurisdiction or a potential interest in developments in the area, you are invited to provide or coordinate comments regarding the proposed Project. Specifically, Stantec is seeking information regarding planning principles or guidelines implemented by your agency that may affect routing, construction and/or operation of the proposed Project. Stantec is also seeking collection of primary and secondary data to help compile an environmental and socio-economic inventory. Enbridge Gas has also retained Stantec to complete a Stage 1 Archaeological Assessment, a Cultural Heritage Checklist, and a windshield survey, which will contribute to the environmental and socio-economic inventory presented in the Environmental Report.

To support the quality of the assessment process, we also request you share information regarding other proposed developments in the Study Area. This information will be incorporated into the Environmental

The Virtual Open House will be available for two weeks starting on **June 20, 2022** and finishing on **July 4, 2022** at https://solutions.ca/HiddenValleyEA/

A questionnaire will be available as part of the Virtual Open House, and you will have the ability to submit comments and/or questions about the proposed Project. In addition, a copy of the Virtual Open House story boards will be available on the Enbridge Gas project website at: https://www.Enbridgegas.com/HiddenValleyProject

[1] The preliminary preferred route and ancillary facilities have been developed for purposes of an assessment of potential environmental and socioeconomic impacts and does not represent the final project scope/design that will provide access to natural gas to end-use customers.

Reference: **Enbridge Gas Inc. – Hidden Valley Community Expansion Project, Notice of Study Commencement and Virtual Open House**

Study and related report as a component of the cumulative effects assessment. **Please contact us to discuss the most efficient way to obtain this information.**

Consultation with Indigenous communities, and engagement with landowners, government agencies, the general public, and other interested persons is an integral component of the planning process. As a result of the constantly evolving nature of the COVID-19 pandemic, a Virtual Open House will be held in place of an in-person Open House. Input received during the Virtual Open House will be used to inform the selection of the Preferred Route and to develop site specific environmental protection or mitigation measures for the Project.

If you have questions or comments regarding the Hidden Valley Community Expansion Project, please do not hesitate to contact the undersigned.

Yours truly,

Laura Hill M.Env.Sc.
Environmental Scientist
Stantec Consulting Ltd.
Direct: 613-784-2256
Laura.Hill@stantec.com

Attachment: Notice of Study Commencement and Virtual Open House

c. Ryan Park, Senior Advisor, Environment, Enbridge Gas Inc.

ENBRIDGE GAS INC.
NOTICE OF STUDY COMMENCEMENT AND VIRTUAL OPEN HOUSE

Hidden Valley Community Expansion Project

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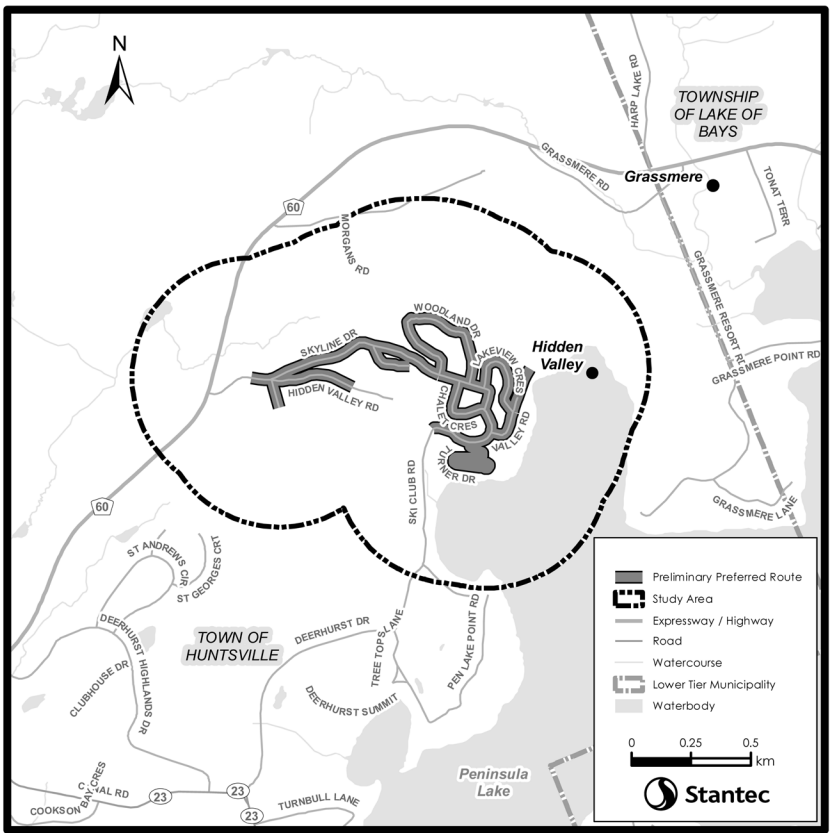

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The Virtual Open House will be available for two weeks starting on June 20, 2022, and finishing on July 4, 2022, at https://www.solutions.ca/HiddenValleyEA/.

If you are unable to log onto the Virtual Open House between June 20 to July 4, please dial 613-784-2256 and leave a detailed message with your contact information and we will respond as soon as possible.

For any questions or comments regarding the proposed Hidden Valley Community Expansion Project, please reach out to:

Laura Hill, Environmental Scientist
Stantec Consulting Ltd.
Telephone: 613-784-2256
Email: Laura.Hill@stantec.com

Or visit the project website at:
https://www.Enbridgegas.com/HiddenValleyProject

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Stantec Consulting Ltd.
300W-675 Cochrane Drive, Markham ON L3R 0B8

June 3, 2022

Reference: Enbridge Gas Inc. – Hidden Valley Community Expansion Project, Notice of Study Commencement and Virtual Open House

I am writing to advise you of an upcoming natural gas pipeline project in the Town of Huntsville.

Enbridge Gas Inc. (Enbridge Gas) is proposing to construct the Hidden Valley Community Expansion Project to provide affordable natural gas to residents in the vicinity of Hidden Valley Road in Huntsville, Ontario (the Project). The preliminary preferred[1] route and ancillary facilities will be constructed for the Project in the Town of Huntsville. Enbridge Gas is proposing to install approximately 5 km of pipeline which will travel east along Hidden Valley Road from Highway 60, and along Skyline Drive to Ski Club Road. Other roads off Hidden Valley Road and Skyline Drive may include Mount Pleasant Crescent, Slalom Drive, Woodland Court, Lakeview Crescent, Chalet Crescent, and Turner Drive.

For further details, please refer to the attached map.

As part of the planning process, Enbridge Gas has retained Stantec Consulting Ltd. (Stantec) to undertake an Environmental Study for the Project. The Environmental Study will fulfill the requirements of the Ontario Energy Board's (OEB) "*Environmental Guidelines for the Location, Construction, and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 7th Edition (2016)".*

An Environmental Report, summarizing the results of the Environmental Study, would accompany Enbridge Gas' application to the OEB as part of the application requesting leave to construct (LTC). It is anticipated that the Environmental Report for the study will be completed in August 2022, after which Enbridge Gas may file an LTC application. Construction is currently anticipated to begin in Summer 2023.

Stantec is presently compiling an environmental, socio-economic, and archaeological/cultural heritage inventory of the Study Area. As an Indigenous community with a potential interest in the Study Area, we are inviting your community to provide comments and feedback regarding the proposed Project. Specifically, we are seeking information about areas that may be culturally significant to your community in the study area and information about potential effects that the Project may have on asserted or established Aboriginal and treaty rights, and any measures for mitigating those adverse impacts.

As a result of the constantly evolving nature of the COVID-19 pandemic, a Virtual Open House will be held in place of an in-person Open House.

[1] The preliminary preferred route and ancillary facilities have been developed for purposes of an assessment of potential environmental and socioeconomic impacts and does not represent the final project scope/design that will provide access to natural gas to end-use customers.

Reference: **Enbridge Gas Inc. – Hidden Valley Community Expansion Project, Notice of Study Commencement and Virtual Open House**

The Virtual Open House will be available for two weeks starting on **June 20, 2022** and finishing on **July 4, 2022** at https://www.solutions.ca/HiddenValleyEA/

A questionnaire will be available as part of the Virtual Open House, and you will have the ability to submit comments and/or questions about the proposed Project. In addition, a copy of the Virtual Open House story boards will be available on the Enbridge Gas project website at: https://www.Enbridgegas.com/HiddenValleyProject

Enbridge Gas is committed to meaningful engagement with Indigenous communities. As such, we would be interested in holding a conference call to share project related information, should you wish. If you have any questions, would like to provide feedback, share knowledge, or would be interested in setting up a briefing on this project please feel free to contact me directly. We look forward to engaging with your community to ensure your interests are being considered and represented.

Please let us know if you are unable to respond by this date but are interested in participating in the consultation process for the Project.

If you have questions or concerns regarding the Hidden Valley Community Expansion Project, please do not hesitate to contact me directly.

Regards,

Melanie Green
Sr Advisor, Community & Indigenous Engagement
Enbridge Gas Inc.
Phone: 613-747-4089
Melanie.Green@enbridge.com

Attachment: Notice of Study Commencement and Virtual Open House

c. Ryan Park, Senior Advisor, Environment, Enbridge Gas Inc
Laura Hill, Stantec Consulting Ltd.

ENBRIDGE GAS INC.
NOTICE OF STUDY COMMENCEMENT AND VIRTUAL OPEN HOUSE

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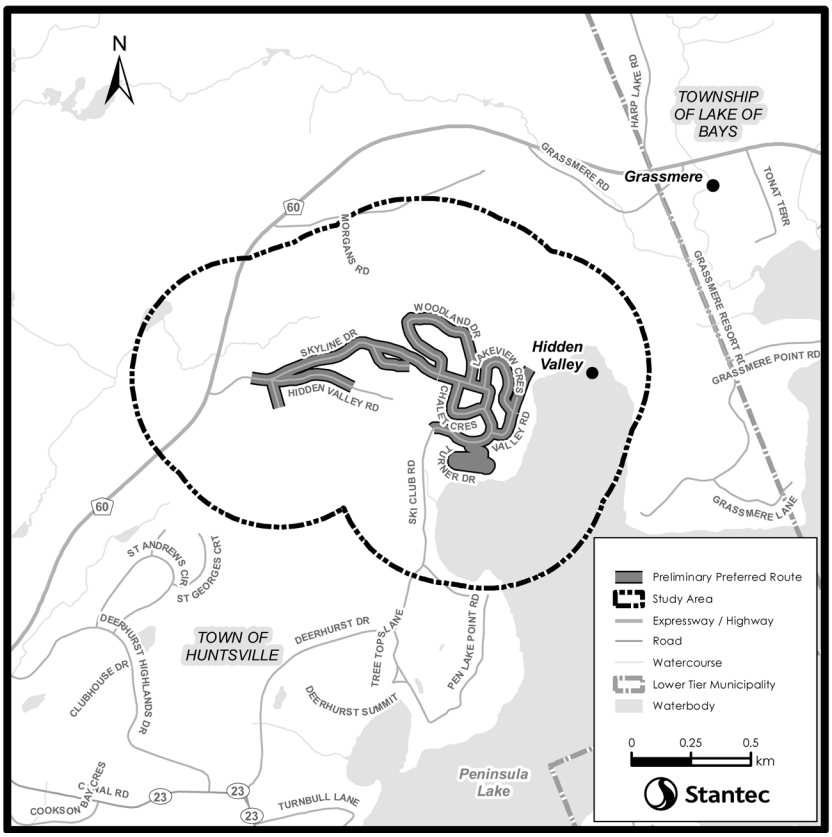

The preliminary preferred route and ancillary facilities have been developed for purposes of an assessment of potential environmental and socioeconomic impacts and does not represent the final project scope/ design that will provide access to natural gas to end-use customers.

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If you are unable to log onto the Virtual Open House between June 20 to July 4, please dial 613-784-2256 and leave a detailed message with your contact information and we will respond as soon as possible.

For any questions or comments regarding the proposed Hidden Valley Community Expansion Project, please reach out to:

Laura Hill, Environmental Scientist
Stantec Consulting Ltd.
Telephone: 613-784-2256
Email: Laura.Hill@stantec.com

Or visit the project website at:
https://www.Enbridgegas.com/HiddenValleyProject

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Stantec Consulting Ltd.
300W-675 Cochrane Drive, Markham ON L3R 0B8

June 3, 2022

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For further details, please refer to the attached map.

You are receiving this letter because the preliminary preferred route is in proximity to your property.

As part of the planning process, Enbridge Gas has retained Stantec Consulting Ltd. (Stantec) to undertake an Environmental Study for the Project. The Environmental Study will fulfill the requirements of the Ontario Energy Board's (OEB) "*Environmental Guidelines for the Location, Construction, and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 7th Edition* (2016)".

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A questionnaire will be available as part of the Virtual Open House, and you will have the ability to submit comments and/or questions about the proposed Project. In addition, a copy of the Virtual Open House story boards will be available on the Enbridge Gas project website at: https://www.Enbridgegas.com/HiddenValleyProject

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Input received during the Virtual Open House will be used to inform the selection of the Preferred Route and to develop site specific environmental protection or mitigation measures for the Project.

Please feel free to share this letter with your neighbours. If you are a landowner, it would also be appreciated if this letter could be shared with your tenants.

Regards,

Laura Hill M.Env.Sc
Environmental Scientist
Stantec Consulting Ltd.
Direct: 613-784-2256
Laura.Hill@stantec.com

Attachment: Notice of Study Commencement and Virtual Open House

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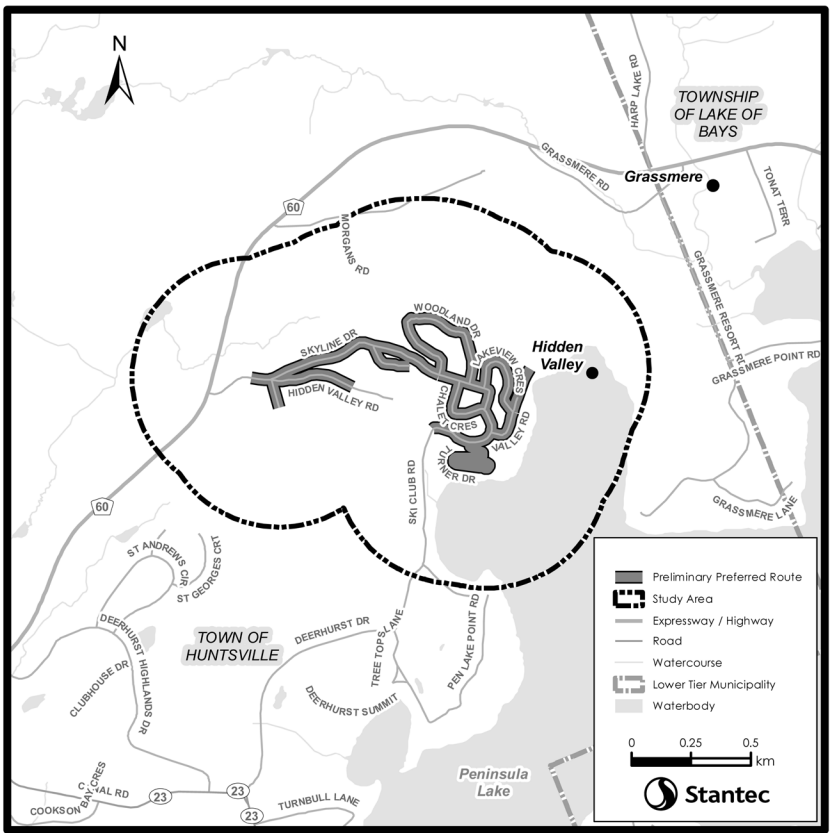

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For any questions or comments regarding the proposed Hidden Valley Community Expansion Project, please reach out to:

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Telephone: 613-784-2256
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Or visit the project website at:
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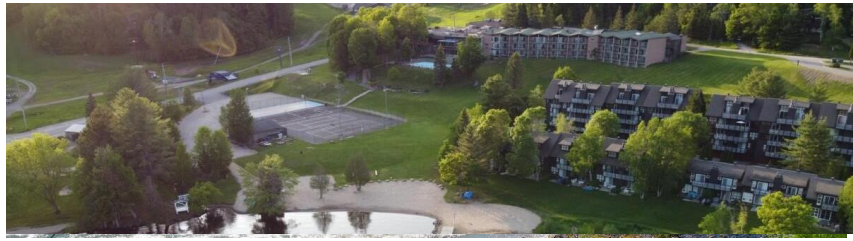
Appendix B5: Virtual Information Session materials

Hidden Valley Community Expansion Project Virtual Open House

Presented on behalf of Enbridge Gas



Welcome

- This presentation will take you 15 minutes to complete.
- Press the next button to navigate to the next slide at any time.
- To return to the previous slide, press the previous button.
- You can mute the audio at any time by pressing the speaker icon.
- The presentation slides as well as the audio script are available for download (see the Resources tab in the top right corner).
- Questions and comments can be submitted using the questionnaire found in the Resources tab.
- If you would like to receive future Project updates, please complete the “Contact Information" section of the questionnaire.

Our commitment

- Enbridge Gas is committed to involving Indigenous communities, agencies, interest groups, and community members.
- We will provide up-to-date information in an open, honest, and respectful manner, and will carefully consider your input.
- Enbridge Gas provides safe and reliable delivery of natural gas to more than 3.8 million residential, commercial, and industrial customers across Ontario.
- Enbridge Gas is committed to environmental stewardship and conducts its operations in an environmentally responsible manner.

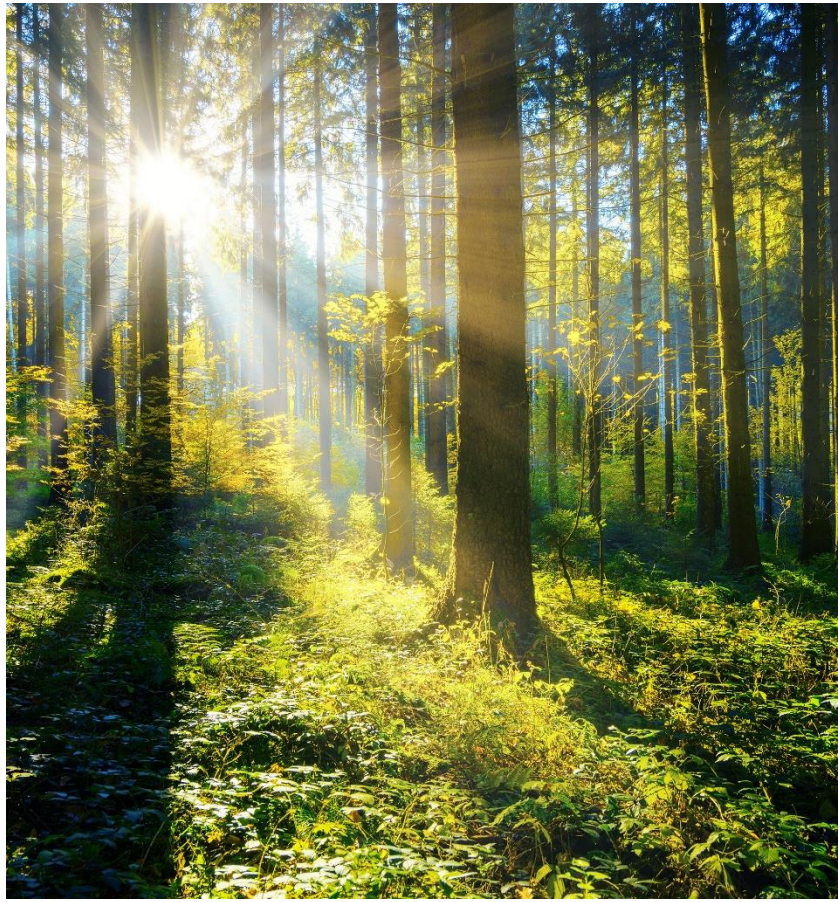
Hidden Valley Community Expansion Project
Virtual Open House

Purpose of the Virtual Open House

- Provide a safe alternative to an in-person meeting.
- Consult with Indigenous communities, and engage with members of the public, and regulatory authorities regarding the proposed pipeline route, potential impacts, and proposed mitigations.
- Provide an opportunity for these individuals and any affected landowners and the general public to review the proposed Project, and to ask any questions and/or provide comments to representatives from Enbridge Gas and Stantec.

Land Acknowledgement

We respectfully acknowledge that the Project is located in the traditional and treaty territory of the Chippewas of Beausoleil, Georgina Island and Rama and the Mississaugas of Alderville, Curve Lake, Hiawatha, Scugog Island (collectively known as the Williams Treaties First Nations) and Huron-Wendat Nation.



Indigenous Peoples Policy

Enbridge Gas recognizes the diversity of Indigenous peoples who live where we work and operate. We understand from history the destructive impacts on the social and economic wellbeing of Indigenous Peoples. Enbridge Gas recognizes and realizes the importance of reconciliation between Indigenous communities and the broader society. Positive relationships with Indigenous peoples, based on mutual respect and focused on achieving common goals, will create positive outcomes for Indigenous communities. Enbridge Gas commits to pursue sustainable relationships with Indigenous Nations and groups in proximity to where Enbridge Gas conducts business. To achieve this, Enbridge Gas will govern itself by the following principles:

- We recognize the legal and constitutional rights possessed by Indigenous peoples, and the importance of the relationship between Indigenous Peoples and their traditional lands and resources. We commit to working with Indigenous communities in a manner that recognizes and respects those legal and constitutional rights and the traditional lands and resources to which they apply. We commit to ensuring that our projects and operations are carried out in an environmentally responsible manner.
- We understand the importance of the United Nations Declaration on the Rights of Indigenous Peoples in the context of existing Canadian law and the commitments that the government has made to protecting the rights of Indigenous Peoples.
- We engage in forthright and sincere consultation with Indigenous Peoples about Enbridge Gas projects and operations through processes that seek to achieve early and meaningful engagement. Indigenous engagement help define our projects that may occur on lands traditionally occupied by Indigenous Peoples.
- We commit to working with Indigenous Peoples to achieve benefits for them resulting from Enbridge's projects and operations, including opportunities in training and education, employment, procurement, business development, and community development.
- We foster understanding of the history and culture of Indigenous Peoples among Enbridge's employees and contractors, in order to create better relationships between Enbridge Gas and Indigenous communities.

This commitment is a shared responsibility involving Enbridge Gas and its affiliates, employees and contractors. We will conduct business in a manner that reflects the above principles. Enbridge will provide ongoing leadership and resources to effectively implement the above principles, including the development of implementation strategies and specific action plans. Enbridge Gas commits to periodically review this policy so that it remains relevant and respects Indigenous culture and varied traditions.

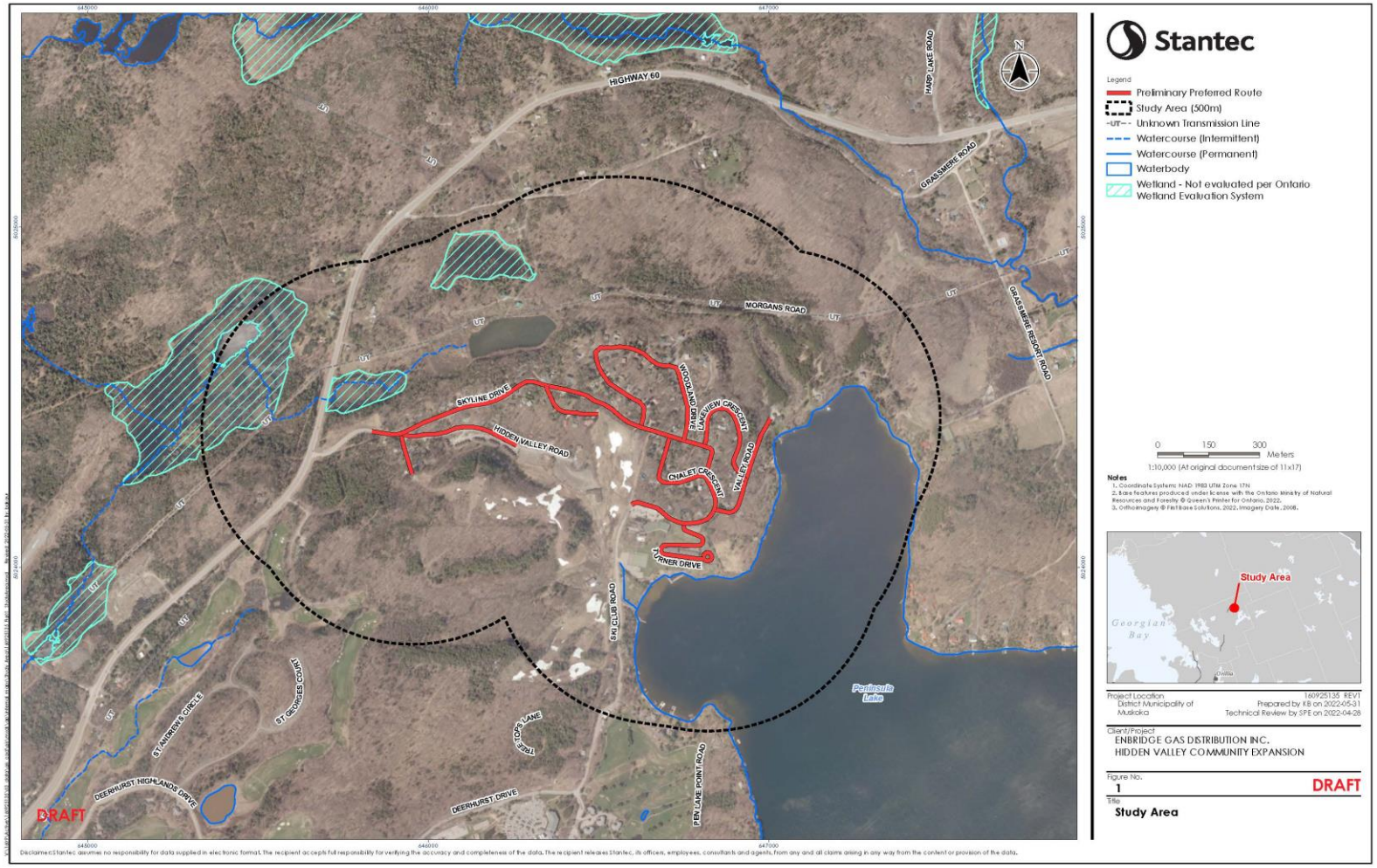
Project Overview

- The Project will involve the installation of up to approximately 5 kilometers (km) of a combination of 2- and 4-inch Nominal Pipe Size (NPS) Polyethylene (PE) natural gas distribution pipeline.
- The proposed Project is located in the Town of Huntsville.
- The pipeline will travel east along Hidden Valley Road from Highway 60, and along Skyline Drive to Ski Club Road. Other roads to be connected off of Hidden Valley Road and Skyline Drive may include Mount Pleasant Crescent, Slalom Drive, Woodland Court, Lakeview Crescent, Chalet Crescent, and Turner Drive.
- The preliminary preferred route has been developed for purposes of an assessment of potential environmental and socioeconomic impacts and does not represent the final Project scope / design that will provide access to natural gas to end-use customers.
- Pending approval by the Ontario Energy Board, construction of the pipeline is planned to begin Summer of 2023 and be in service by Winter 2023.

Hidden Valley Community Expansion Project
Virtual Open House

Project Preliminary Preferred Route Map:

The proposed route has been developed for purposes of an assessment of potential environmental and socioeconomic impacts and does not represent the final Project scope / design that will provide access to natural gas to end-use customers.



Stantec

Environmental Study Process

As part of the planning process, Enbridge Gas has retained Stantec to undertake an Environmental Study for the Project. The Environmental Study will fulfill the requirements of the Ontario Energy Board's (OEB) "*Environmental Guidelines for the Location, Construction, and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 7th Edition (2016)*".

The study will:

- Undertake engagement to understand the views of interested and potentially affected parties.
- Consult with Indigenous communities and key stakeholders to understand interests and potential impacts.
- Be conducted during the earliest phase of the Project.
- Identify potential impacts of the Project.
- Develop environmental mitigation and protective measures to avoid or reduce potential impacts.
- Develop an appropriate environmental inspection, monitoring, and follow-up program.

Ontario Energy Board (OEB) Review and Approval Process

It is anticipated that the Environmental Report for the study will be completed in July 2022, after which Enbridge Gas may file a Leave-to-Construct (LTC) application. The application to the OEB will include the following information on the Project:

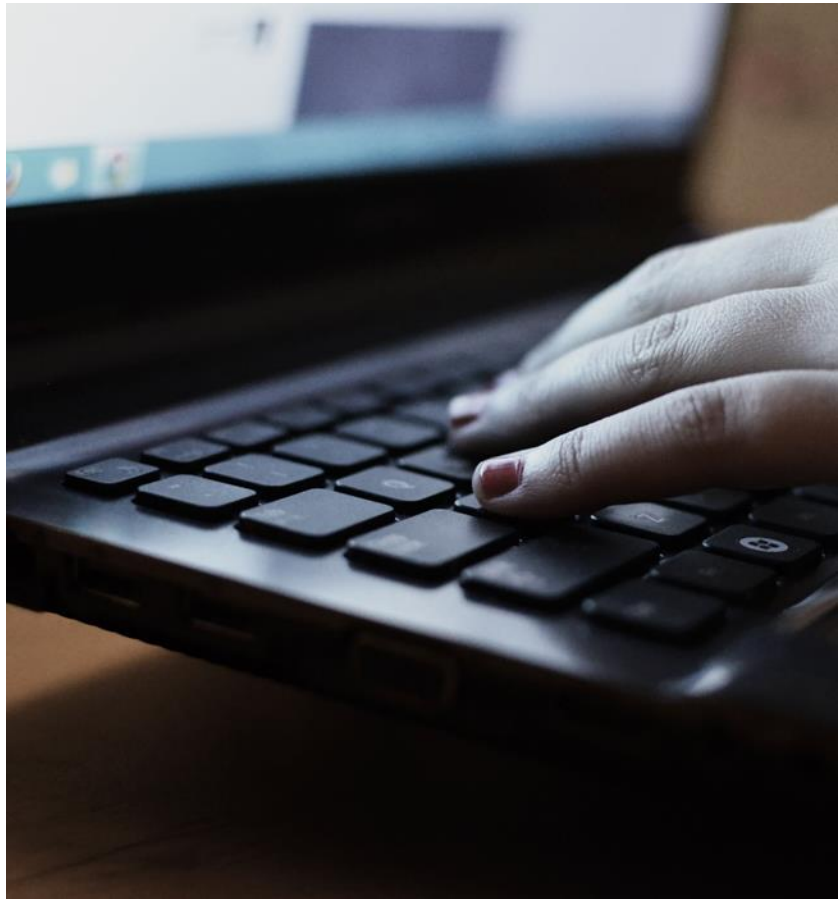
- The need for the Project
- Environmental Report and mitigation measures
- Project costs and economics
- Pipeline design and construction
- Land requirements
- Consultation with Indigenous Communities

Additional information about the OEB process can be found at: www.ontarioenergyboard.ca

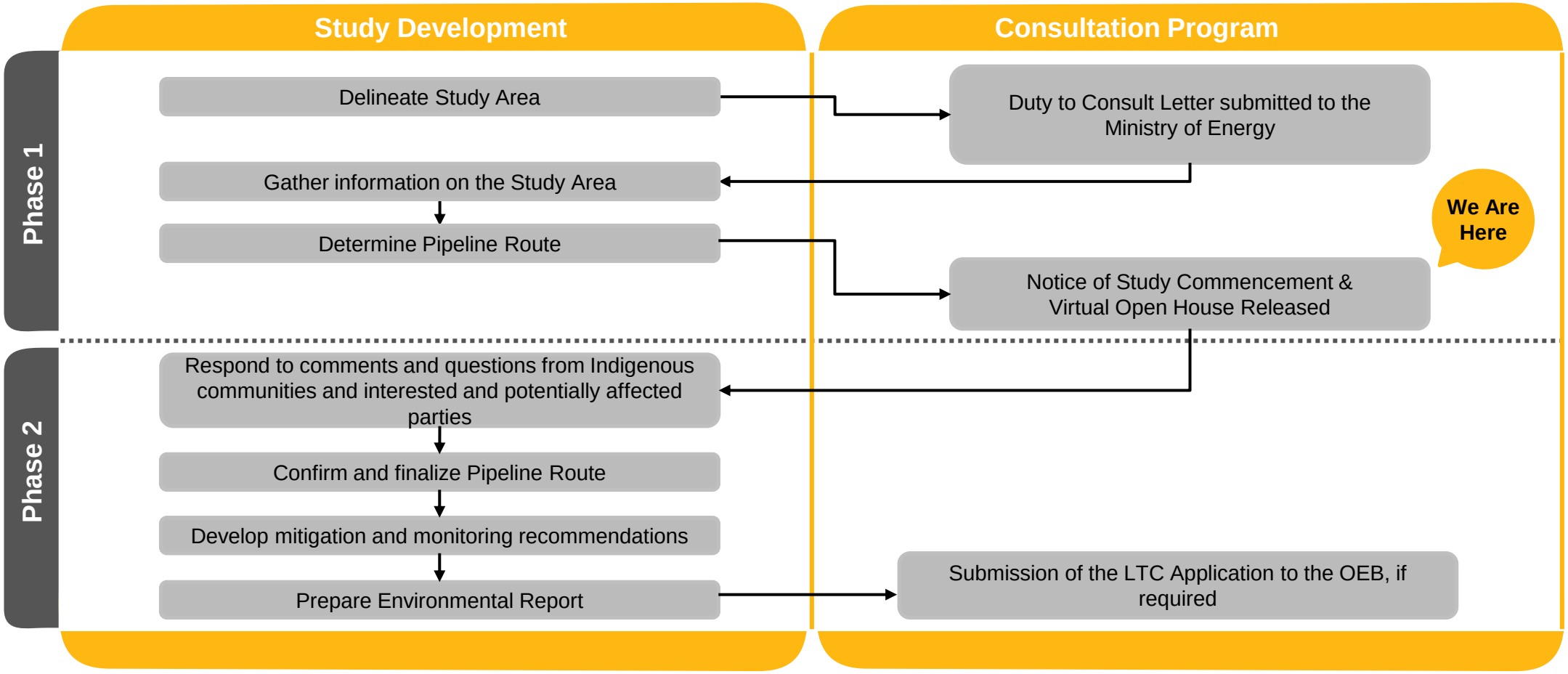
The OEB will then hold a public hearing to review the Project. If the OEB determines that the Project is in the public interest, it will approve construction of the Project.

Consultation and Engagement

- Consultation and engagement are key components of the Environmental Report.
- At the outset of the Project, Enbridge Gas submits a Project Description to the Ministry of Energy; upon review, the Ministry of Energy determines potential impacts on aboriginal or treaty rights and identify Indigenous communities that Enbridge Gas must consult with during the entirety of the Project.
- The consultation and engagement program helps identify and address Indigenous community and stakeholder concerns and issues, provides information about the Project to the stakeholders, and allow for participation in the Project review and development process.
- Input will be used to help finalize the pipeline route and mitigation plans for the project.
- Once the LTC application is made to the OEB, any party with an interest in the Project, including members of the public, can participate in the process.



Environmental Study Process



Environment, Health and Safety Policy

Our commitment

- Enbridge Gas is committed to protecting the health and safety of all individuals affected by our activities.
- Enbridge Gas will provide a safe and healthy working environment and will not compromise the health and safety of any individual.
- Our goal is to have no incidents and mitigate impacts on the environment by working with our stakeholders, peers, and others to promote responsible environmental practices and continuous improvement.
- Enbridge Gas is committed to environmental protection and stewardship, and we recognize that pollution prevention, biodiversity, and resource conservation are key to a sustainable environment.
- All employees are responsible and accountable for contributing to a safe working environment, for fostering safe working attitudes, and for operating in an environmentally responsible manner.

Access and Land Requirements

- While the majority of the pipeline route will be constructed within municipal road allowances, some circumstances requiring access agreements, permanent easement or temporary working space during construction could result in the need for additional land outside of road allowances.
- Enbridge Gas has a comprehensive Landowner Relations Program that uses a dedicated Lands Advisor who, if necessary, would:
    - Provide direct contact & liaison between landowners and Enbridge Gas.
    - Be available to the landowner during the length of the Project and throughout construction activities.
    - Address the concerns and questions of the landowner.
    - Act as a singular point of contact for all landowners.
    - Address any landowner questions and any legal matters relating to temporary use of property, access agreements, permanent easements, and impacts or remedy to property.

Socio-economic Features

The Project will mainly be constructed in municipal road allowances. As a result of construction, private businesses, agricultural operations, residential land and cottages along the pipeline route may be impacted.

Potential Effects

- Temporary increases in noise, dust, and air emissions.
- Increased construction traffic volumes.
- Temporary impairment of the use and enjoyment of residential and/or cottage property.
- Vegetation clearing along the pipeline easement.

Example Mitigation Measures

- Provide access across the construction area.
- Restrict construction to daylight hours and adhere to applicable noise by-laws.
- Develop and implement a Traffic Management Plan.
- Place fencing at appropriate locations for safety.
- Implement a water well monitoring program.
- Making contact information for a designated Enbridge Gas representative available prior to and throughout construction.
- Dust control measures.
- Re-vegetation of cleared areas (seeding/planting).

Cultural Heritage Resources

During construction, cultural heritage features such as archaeological finds, buildings, fences, and landscapes may be encountered. Detailed field surveys will be conducted by independent, third-party archaeologists and cultural heritage professionals, if required.

Potential Effects

- Damage or destruction of archaeological or historical resources.

Example Mitigation Measures

- Archaeological assessment of the construction footprint, with review and comment from the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI).
- Cultural heritage assessment (for built heritage features and cultural heritage landscapes) of the construction right-of-way, with review and comment from MHSTCI.
- Reporting of any previously unknown archaeological or historical resources uncovered, or suspected of being uncovered, during excavation.

Terrestrial Resources

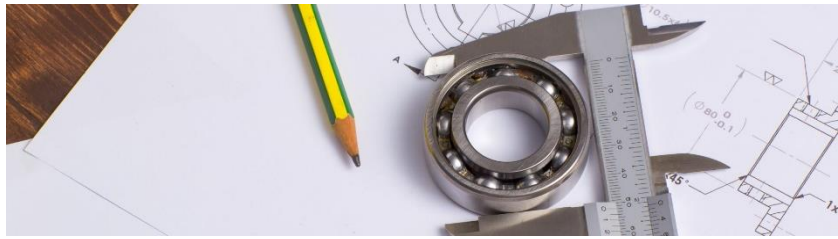
During construction, natural environmental features such as wildlife habitat and vegetated/wooded areas will need to be crossed.

Potential Effects

- Damage or removal of vegetation and wildlife habitat in the construction area.
- Disturbance and/or mortality to local wildlife.

Example Mitigation Measures

- Conduct surveys (including Species at Risk surveys) in advance of construction to determine opportunities for wildlife habitat to exist.
- Complete tree removal outside of migratory bird windows (typically from April 1 – August 31), to the extent possible.
- Clearly mark the construction area to avoid accidental damage.
- Restore and seed disturbed areas to establish habitat and reduce erosion, if required.
- Secure any necessary permits and follow any conditions of approval.



Pipeline Design

The high-grade plastic and steel pipeline is designed to meet and/or exceed the regulations of the Canadian Standards Association (Z662 Oil and Gas Pipeline Systems) and the applicable regulations of the Technical Standards & Safety Association (TSSA).

Pipeline Safety and Integrity

We take many steps to ensure safe, reliable operation of our network of natural gas pipelines, such as:

- Design, construct, and test our pipelines to meet or exceed requirements set by industry standards and regulatory authorities,
- Continuously monitor the entire network, and
- Perform regular field surveys to detect leaks and confirm corrosion prevention methods are working as intended.

Next Steps

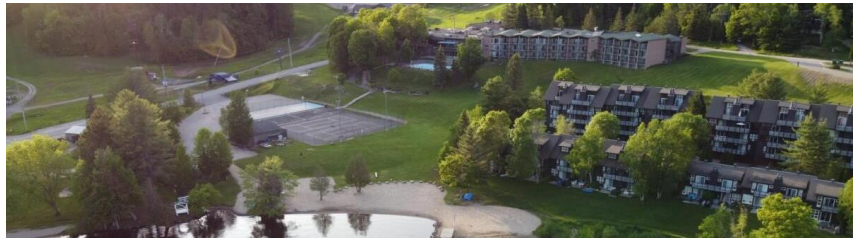
After this Virtual Open House, we intend to pursue the following schedule of activities:

Q2/Q3 2022
- Start the environmental planning process and Virtual Open House
- Complete Environmental Report

Q4 2022
Complete OEB filing application

Q2 2023
Receive OEB approval, complete permitting, pipeline design, and construction planning

Q3 2023
Start construction



Thank-you!

On behalf of the Project team, thank-you for listening to the Virtual Open House presentation. Please complete the Questionnaire, located in the Resources Tab. Please complete the Questionnaire by July 8, 2022, for your comments to be considered as part of the Environmental Report.

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Chatham, ON N7M 5J5
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For more information about the proposed project, please visit our project website at https://www.enbridgegas.com/about-enbridge-gas/projects/hidden-valley

Slide #	Slide Theme	Script
1	Title Page	Thank-you for viewing the Virtual Open House for the Hidden Valley Community Expansion Project. This presentation has been prepared by Stantec Consulting Ltd. on behalf of Enbridge Gas.
2	Welcome / Our Commitment	**Welcome** This presentation will take you 15 minutes to complete. You may pause the presentation at any time to read over the presentation slides. A copy of the presentation slides is available for download from the Resources Tab. Questions and comments can be submitted using the questionnaire, also found on the Resources tab, and an Enbridge Gas or Stantec representative will respond. If you would like to receive future Project updates, please complete the "Contact Information" section of the questionnaire. **Our Commitment** Enbridge Gas is committed to involving Indigenous communities, agencies, interest groups, and community members in this proposed project by providing you with up-to-date information in an open, honest and respectful manner, and will carefully consider your input. Enbridge Gas provides safe and reliable delivery of natural gas to more than 3.8 million residential, commercial, and industrial customers across Ontario. Enbridge Gas is committed to environmental stewardship and conducts all operations in an environmentally responsible manner.
3	Purpose of the Virtual Open House	Enbridge Gas is committed to the health and safety of the public and its workers. As a result of the COVID-19 pandemic, Enbridge Gas is providing a Virtual Open House as a safe alternative to an in-person information session. The Purpose of the Virtual Open House is to consult with Indigenous communities and engage with members of the public and regulatory authorities regarding the proposed route, potential impacts, and mitigation measures. The Virtual Open House also provides an opportunity for individuals to ask any questions and provide comments to representatives from Enbridge Gas and Stantec.
4	Land Acknowledgement	We respectfully acknowledge that the Project is located in the traditional and treaty territory of the Chippewas of Beausoleil, Georgina Island and Rama and the Mississaugas of Alderville, Curve Lake, Hiawatha, Scugog Island (collectively known as the Williams Treaties First Nations) and Huron-Wendat Nation.

Slide #	Slide Theme	Script
5	Indigenous Peoples Policy	Enbridge Gas recognizes the diversity of Indigenous peoples who live where we work and operate. We understand from history the destructive impacts on the social and economic wellbeing of Indigenous Peoples. Enbridge Gas recognizes and realizes the importance of reconciliation between Indigenous communities and the broader society. Positive relationships with Indigenous peoples, based on mutual respect and focused on achieving common goals, will create positive outcomes for Indigenous communities. Enbridge Gas commits to pursue sustainable relationships with Indigenous Nations in proximity to where Enbridge Gas conducts business. To achieve this, Enbridge Gas will govern itself by the following principles as seen on this slide.
6	Project Overview	The Project will involve the installation of up to approximately 5 kilometers (km) of a combination of 2- and 4-inch Nominal Pipe Size (NPS) Polyethylene (PE) natural gas distribution pipeline. The proposed Project is located in the Town of Huntsville. The pipeline will travel east along Hidden Valley Road from Highway 60, and along Skyline Drive to Ski Club Road. Other roads to be connected off of Hidden Valley Road and Skyline Drive may include Mount Pleasant Crescent, Slalom Drive, Woodland Court, Lakeview Crescent, Chalet Crescent, and Turner Drive. The proposed route has been developed for purposes of an assessment of potential environmental and socioeconomic impacts and does not represent the final Project scope / design that will provide access to natural gas to end-use customers. Pending approval by the Ontario Energy Board, construction of the pipeline is planned to begin Summer of 2023 and be in service by Winter 2023.
7	Project Route Map	This slide shows an image of the preliminary preferred route map. The proposed route has been developed for purposes of an assessment of potential environmental and socioeconomic impacts and does not represent the final Project scope / design that will provide access to natural gas to end-use customers.
8	Environmental Study Process	The environmental study and Environmental Report will be completed according to the Ontario Energy Board's Environmental Guidelines. The study will: • Undertake engagement to understand the views of interested and potentially affected parties. • Consult with Indigenous communities and key stakeholders to understand interests and potential impacts. • Be conducted during the earliest phase of the Project. • Identify potential impacts of the Project. • Develop environmental mitigation and protective measures to avoid or reduce potential impacts; and, • Develop an appropriate environmental inspection, monitoring, and follow-up program.

Slide #	Slide Theme	Script
9	OEB Review and Approval Process	It is anticipated that the Environmental Report for the study will be completed in July 2022, after which Enbridge Gas may file a Leave-to-Construct application. The application to the Ontario Energy Board will include the following information on the Project: • The need for the Project • Environmental Report and mitigation measures • Project costs and economics • Pipeline design and construction • Land requirements • Consultation with Indigenous Communities The Ontario Energy Board will then hold a public hearing to review the Project. If the Ontario Energy Board determines that the Project is in the public interest, it will approve construction of the Project. Additional information about the Ontario Energy Board process can be found on their website.
10	Consultation and Engagement	Consultation and engagement are a key component of the Environmental Report being completed as part of the Leave to Construct Application. It helps to identify and address Indigenous community and stakeholder concerns in the early stages of a project. Enbridge Gas submits a Project Description to the Ministry of Energy who then use this Project Description to determine potential impacts on aboriginal and treaty rights and identify Indigenous communities that Enbridge Gas must consult with during the entirety of the Project. Input from this Virtual Open House will be used to help finalize the pipeline route and to create mitigation plans to be implemented in the final design and construction. Once the Leave-to-Construct application is submitted to the Ontario Energy Board, any party with an interest in the Project can participate in their review process.
11	Environmental Study Process	This slide shows the environmental study process that Enbridge Gas follows as part of the Ontario Energy Board's Environmental Guidelines. Enbridge Gas is currently nearing the end of Phase 1.

Slide #	Slide Theme	Script
12	Environment, Health and Safety Policy	Enbridge Gas is committed to protecting the health and safety of all individuals affected by our activities. Enbridge Gas will provide a safe and healthy working environment and will not compromise the health and safety of any individual. Our goal is to have no incidents and mitigate impacts on the environment by working with our stakeholders, peers, and others to promote responsible environmental practices and continuous improvement. Enbridge Gas is committed to environmental protection and stewardship, and we recognize that pollution prevention, biodiversity, and resource conservation are key to a sustainable environment. All employees are responsible and accountable for contributing to a safe working environment, for fostering safe working attitudes, and for operating in an environmentally responsible manner.
13	Access and Land Requirements	While the majority of the pipeline route will be constructed within municipal road allowances, some circumstances requiring access agreements, permanent easement or temporary working space during construction could result in the need for additional land outside of road allowances. Enbridge Gas has a comprehensive Landowner Relations Program that uses a dedicated Lands Advisor who, if necessary, would: • Provide direct contact & liaison between landowners and Enbridge Gas. • Be available to the landowner during the length of the Project and throughout construction activities. • Address the concerns and questions of the landowner. • Act as a singular point of contact for all landowners. • Address any landowner questions and any legal matters relating to temporary use of property, access agreements, permanent easements, and impacts or remedy to property.
14	Socio-economic Features	The Project will mainly be constructed in municipal road allowances. As a result of construction, private businesses, agricultural operations, residential land and cottages along the pipeline route may be impacted. Potential socio-economic effects of construction include temporary increases in noise, dust and air emissions, increased construction traffic, temporary impairment of residential and/or cottage property use and vegetation clearing. Some of the mitigation measures that could be implemented during construction include providing access across construction areas, restricting construction to daylight hours, adhering to applicable noise by-laws, developing a Traffic Management Plan, dust-control measures, and re-vegetating cleared areas. Additional examples are provided on this slide for your review.

Slide #	Slide Theme	Script
15	Cultural Heritage Resources	During construction, cultural heritage features such as archaeological finds, buildings, fences, and landscapes may be encountered. Detailed field surveys will be conducted by independent, third-party archaeologists and cultural heritage professionals prior to construction, if required. As outlined on this slide, there are several mitigation measures that will be employed to reduce the potential effects construction could have on cultural heritage, as approved by the Ministry of Heritage, Sport, Tourism and Culture Industries.
16	Terrestrial Resources	During construction, natural environmental features such as wildlife habitat and vegetated or wooded areas will need to be crossed. Potential effects include damage of vegetation and wildlife in the construction area. Prior to construction, surveys (including Species at Risk surveys) will be conducted to determine opportunities for wildlife habitat to exist. Tree removals will be conducted outside of migratory bird windows (typically from April 1 – August 31), to the extent possible. Construction areas will be clearly marked to avoid accidental damage and affected areas will be restored or seeded to establish habitat and reduce erosion. Permits from municipalities and government agencies will be secured as required, and permit conditions will be followed in order to reduce damage and disturbance to vegetation and wildlife.
17	Pipeline Design	The high-grade plastic and steel pipeline is designed to meet or exceed the regulations of the Canadian Standards Association and the applicable regulations of the Technical Standards & Safety Association. Enbridge Gas takes many steps to ensure safe, reliable operation of the network of natural gas pipelines, such as designing, constructing, and testing pipelines to meet or exceed requirements set by industry standards and regulatory authorities, continuously monitoring the entire network, and performing regular field surveys to detect leaks and confirm corrosion prevention methods are working as intended.
18	Next Steps	Serving hundreds of communities in Ontario, we at Enbridge Gas consider ourselves strong community partners who believe in and are committed to consultation and engagement. During the planning stages for this Project, we have consulted and will continue to consult with Indigenous Communities and engage with local landowners, government agencies and other interested parties that could be impacted by the Project. After this Virtual Open House is complete, we plan to complete our Environmental Report. When complete, we may submit it to the Ontario Energy Board along with other Leave-to-Construct documents. If a Leave-to-Construct is required, we anticipate we'll receive a response from the Ontario Energy Board by May 2023. Permitting, pipeline design, and construction planning will then take place. We would plan to start construction in summer of 2023 and be in service by fall 2023.

Slide #	Slide Theme	Script
19	Thank-you	On behalf of the Project team, thank-you for listening to the Virtual Open House presentation for the Hidden Valley Community Expansion Project. If you have any questions or comments, or you would like to be kept up to date on the Project please complete the Questionnaire located in the Resources Tab. Please complete the Questionnaire by July 8, 2022, to be considered as part of the Environmental Report that will be submitted to the Ontario Energy Board. Please note that comments will still be received after this date and will be reviewed and considered during the planning and design phase, as applicable. To return to a specific slide, please press the “menu” button and select the slide you wish to review. To close the presentation, please press the “save and exit” button. For more information about the proposed project, please visit our project website at the website link shown on this slide.

Hidden Valley Community Expansion Project
Virtual Open House Questionnaire

Thank you for attending the Hidden Valley Community Expansion Project Virtual Open House! We hope the session was informative and we would appreciate your comments and feedback. If you require any assistance or clarification while completing this questionnaire, please send an email to HiddenValleyEA@stantec.com or call 613-784-2256 and leave a detailed message. If you have a question that requires a response, please fill out the **Contact Information** section at the end of this form and a representative will respond as soon as possible.

Please complete this questionnaire by **July 8, 2022,** to be considered as part of the Environmental Report submitted to the Ontario Energy Board (OEB). Your feedback is important and will also be considered during the planning and permitting stages of the Project.

1. **What is your interest in this Project?**

   ☐ Directly affected landowner
   ☐ Business Owner
   ☐ Surrounding landowner
   ☐ Resident interested in natural gas conversion
   ☐ Interested citizen
   ☐ Member of interest group
   ☐ Government official
   ☐ Other: _____

2. **What is your view of the proposed Project?**

3. **Please indicate if the Project will have any potential impacts to you, your property, or your business that you would like addressed** (i.e., access, noise, dust, traffic, etc.).

4. **Please identify any features along the preliminary preferred route you feel are important to consider during the environmental study.**

Hidden Valley Community Expansion Project
Virtual Open House Questionnaire

5. **Were you provided with an adequate understanding of the Project and the Environmental Assessment OEB review and approval process?**

   ☐ Yes

   ☐ No

6. **Do you require additional information about the Project and/or Environmental Assessment OEB process? Please note below:**

7. **Did the content provided in the Virtual Open House meet your needs?**

8. **How did you hear about the Virtual Open House? Check all that apply:**

   ☐ Newspaper Advertisement

   ☐ Project Notification Letter

   ☐ Word of Mouth

   ☐ Social Media Post

9. **Do you have any questions or comments about this Project, not addressed above, you would like to bring to our attention?**

Hidden Valley Community Expansion Project
Virtual Open House Questionnaire

Thank you for completing this questionnaire. If you would like to be informed of Project updates, please provide us with your full contact information. If you have a question about the Project that has not been addressed or for which you would like more information, please email us at: HiddenValleyEA@stantec.com or call 613-784-2256and leave a detailed message.

Contact Information

Name: _____

Address: _____

Email: _____

Phone: (____)_____

Information will be collected and used in accordance with the Freedom of Information and Protection of Privacy Act. This information will be used to assist Enbridge Gas Inc. in meeting applicable approval requirements. This material will be maintained on file for use during the study and may be included in Project documentation. Unless indicated otherwise, personal information and all comments will become part of the public record and may be publicly released as part of Project documentation.

Appendix B6: Project Correspondence

Enbridge Gas Inc.
Hidden Valley Community Expansion Project
Correspondence Tracking • Landowner and Public

N/A - Not Available

Comment Number	Stakeholder Group	Stakeholder Representative Name	Method of Communication	Date of Communication	Summary of Comment	Date of Response	Summary of Response
	Former Ministry of Energy (MOE)		Email				
See Appendix B1 and B2	All agencies and municipalities on the Project's Contact Lists	N/A	Email	3-Jun-22	Notice of Study Commencement.	N/A	N/A
1	Ministry of Environment, Conservation, and Parks (MECP), Environmental Assessment Branch	Jon Orpana	Email	3-Jun-22	MECP informed that Huntsville falls in Barrie District of MECP's Central Region and the Respective Planners have been forwarded the NOC.		
2	Town of Huntsville	Denise Corry	Email	5-Jun-22	The Town of Huntsville provided confirmation of receipt of the Notice of Study Commencement.	N/A	N/A
3	Ministry of Environment, Conservation, and Parks (MECP), Environmental Assessment Branch	Trevor Bell	Email	6-Jun-22	MECP requested to resend the NOC letter that was attached with the original email.	N/A	N/A
4	Transport Canada (TC)		Email	7-Jun-22	TC advised that they do not require receipt of all individual or class EA related notifications. Project proponents are required to self-assess if their project: (1) will interact with a federal property and/or waterway by reviewing the Directory of Federal Real Property and (2) will require approval and/or authorization under any Acts administered by TC.	N/A	N/A
5	Species at Risk Branch	SAR Ontario (MECP)	Email	8-Jun-22	SARB provided directions and contacts to determine if an ESA authorization will be required.	N/A	N/A
6	Impact Assessment Agency of Canada (IAAC) / Government of Canada	Anjala Puvananathan	Email	9-Jun-22	IAAC provided a Letter of Non-Applicability, stating that the Project is not subject to the Impact Assessment Act.	N/A	N/A
7	Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNRF)	Pauline Capelle	Email	24-Jun-22	NDMNRF confirmed the receipt of a copy of the Notice of Study Commencement. NDMNRF provided information to guide identification and assessment of natural features and resources as required by applicable policies and legislation. General information provided in their email included: > links and resources for natural heritage and natural resource GIS data layers -> information on permits, licenses or authorizations for relocation of fish and/or wildlife under the Fish and Wildlife Conservation Act -> information on Public Lands Act or Lakes and River Improvement Act, if the project is subject to the provisions of the Act.	N/A	N/A
8	Ministry of Environment, Conservation, and Parks (MECP), Conservation and Source Protection Branch (CSPB)	Vesna Alimpic	Email	27-Jun-22	The Source Protection Program Branch of the MECP shared that natural gas pipelines are not identified as a threat to drinking water sources under the Clean Water Act, 2006. MECP also provided information to guide identification and assessment of impacts to drinking water, aquifers, and Intake-Protection Zones. It was requested by the MECP, that the environmental report indefinity the following: -> demonstrate how source protection mitigation measures will be implemented -> demonstrate how sensitive hydrologic features including current or future sources of drinking water not explicitly addressed in source protection plans, will be protected during the construction and maintenance of the Project.	N/A	N/A

Enbridge Gas Inc.
Hidden Valley Community Expansion Project
Correspondence Tracking • Landowner and Public

N/A - Not Available

Comment Number	Community	Community Representative Name	Method of Communication	Date of Communication	Summary of Comment
See Appendix B1 and B2	All communities on contact list	N/A	Email	3-Jun-22	Notice of Study Commencement letter and map sent to all communities and contacts on the Indigenous Communities contact list.
See Appendix B1 and B2	All communities on contact list	N/A	Email	21-Jun-22	A reminder email for the virtual open house that is currently taking place for Hidden Valley Community Expansion Project was sent to all communities and contacts on the Indigenous Communities contact list.
1	Curve Lake First Nation	Chief Emily Whetung	Email	15-Jun-22	In a response letter, dated June 15, 2022, CLFN acknowledged the receipt of correspondence regarding the Hidden Valley Community Expansion Project. The nation requested that Enbridge Gas provide: - A file fee as outlined in the nations Consultation and Accommodation Standards - a summary statement indicating how the Project will address the areas that are of concern to CLFN: possible environmental impact to the nations drinking water, endangerment to fish and wild game, impact on Aboriginal heritage and cultural values, and to endangered species, lands, savannas etc. - a date and time to meet with CLFN in person or virtually upon review of the information requested above. - an opportunity for CLFN to participate in the Stage 1 AA for the Project. And at least one of the nation's Cultural Heritage Liaisons be involved in any Stage 2-4 assessments, including test pitting, and/or pedestrian surveys to full excavation. In their formalized letter, CLFN, also indicated that from an initial scan of the Project area, there may be the presence of burial or archaeological sites in proximity to the Project. Should excavation unearth bones, remains, or other such evidence of a native burial site or any other archaeological findings, CLFN requested they be notified immediately.

Enbridge Gas Inc.
Hidden Valley Community Expansion Project
Correspondence Tracking • Landowner and Public

N/A - Not Available

Comment Number	Stakeholder Group	Name	Method of Communication	Email	Phone Number	Date of Correspondence	Summary of Comment	Date Response Provided	Summary of Response
N/A - Not Applicable	Directly affected landowner	Stantec on the behalf of Enbridge Gas	Mail	N/A	N/A	10-Jun-22	Notice of Study Commencement mailed June 8, 2022 and delivered to mailboxes June 10, 2022.	N/A	N/A
1	Directly affected landowner	[redacted]	Phone	N/A	[redacted]	10-Jun-22	Landowner at [redacted] asked about whether his house would be included in the project. He is considering switching off oil, and onto propane, but he was curious about the timing for the project because he might want to wait for natural service instead. He also mentioned that Enbridge should be aware of shallow bedrock in the area.	10-Jun-22	Stantec spoke with the landowner and provided details on the Project timeline and in-service date. Stantec also shared that the virtual open house was happening and the dates and that he'll be able to see a better map, and get more information on what Enbridge has to do and when. Additionally, Stantec would follow up with the landowner and provide confirmation on whether Enbridge would be doing the connections to houses at the same time as constructing the road allowance pipe.
2	Surrounding landowner	[redacted]	Email	[redacted]@surenet.net	N/A	15-Jun-22	Landowner at [redacted] thanked Enbridge for their services and appreciated the proposed expansion of gas line. Landowner noted that they will not be able to attend the VOH and wanted to share their positive feedback.	20-June-22	Stantec thanked the landowner for providing such positive feedback.
3	Other: Public	[redacted]	Email	[redacted]@gmail.com	[redacted]	22-Jun-22	Resident requested for the link to the VOH website.	22-June-22	Stantec supporting the person in figuring out their access issue and they confirmed they were able to access the website
4	Directly affected lalndowner	[redacted]	Email	[redacted]@hotmal.com	N/A	3-Jul-22	Landonwer inquired about the projects funding, provincial rebates for installation of natural gas and the final day of submission for the questionnaire in order for the residents questions to be included in the final ER.	26-Jun-22	Stantec indicated that Enbridge is not aware of any existing provincial rebate programs and that residents are advised to check the government's website for information on government rebate programs.
5	Individual	[redacted]	Phone	N/A	N/A	4-Jul-22	Individual inquired about the questionnaire submission via mail, whether landowners received direct notice of the Project and provided a general comment regarding continuing to invest in natural gas services when we're on the verge of the climate being too exposed to greenhouse gases.	4-Jul-22	Stantec spoke with the Individual and provided the mail in address for the resident to send in their questionnaire and answered the respondents questions.
6	Individual	[redacted]	Email	[redacted]@gmail.com	N/A	7-Jul-22	Individual expressed concerns related to climate change.	26-Jul-22	Stantec thanked the individual for their comments.
7	Individual	[redacted]	Email	[redacted]@gmail.com	N/A		Individual expressed concerns related to climate change.	26-Jul-22	Stantec thanked the individual for their comments.

Enbridge Gas Inc.
Hidden Valley Community Expansion Project
Correspondence Tracking • Landowner and Public

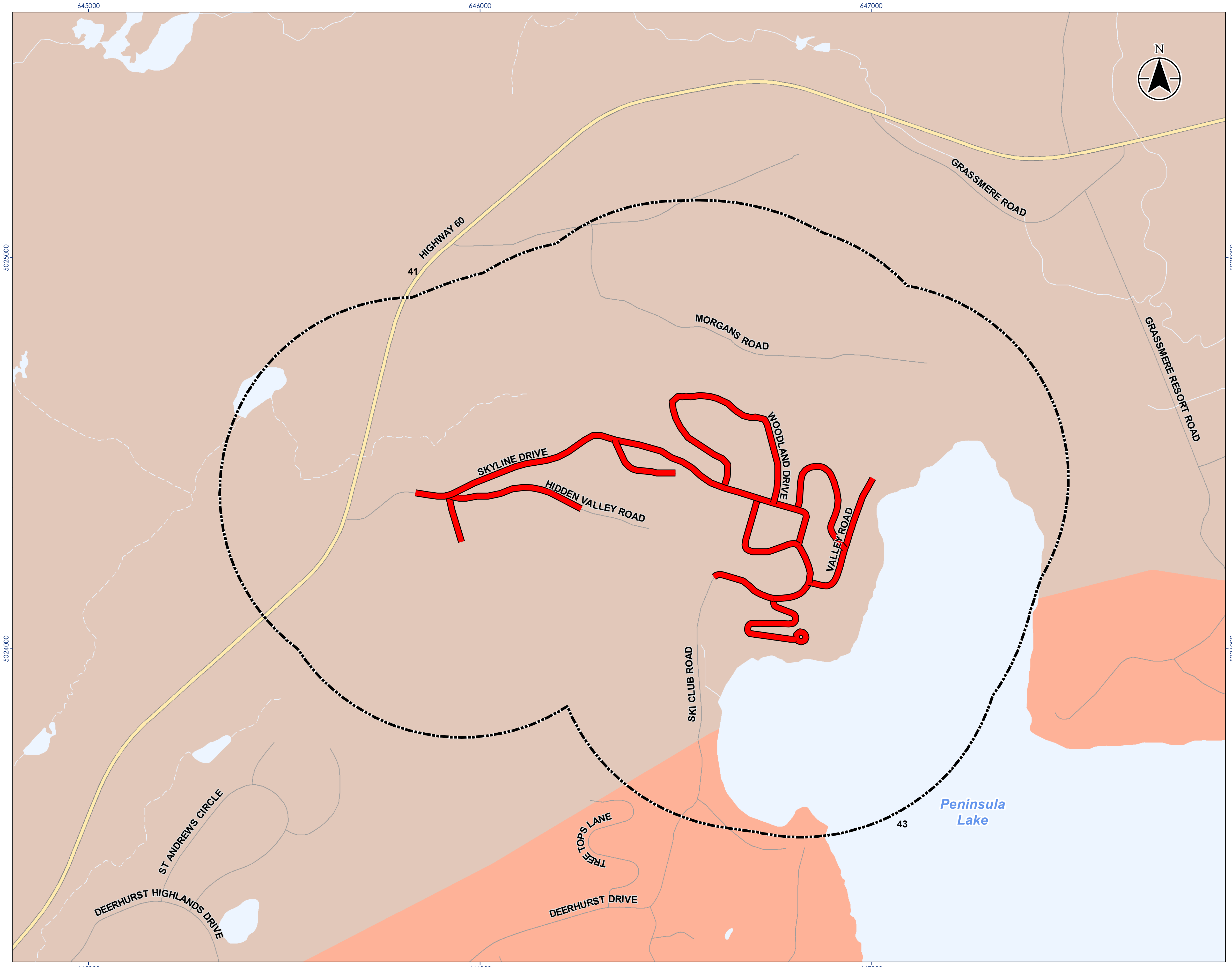
N/A - Not Available

Comment Number	Stakeholder Group	Correspondent	Address	Email	Phone Number	Method of Communication	Date of Correspondence	Reponses Provided	Date Response Provided	Summary of Response
See copy of the questionnaire provided in Appendix B5	N/A	Stantec on the behalf of Enbridge Gas	N/A	N/A	N/A	Virtual Open House Questionnaire		See Appendix B5 for a blank copy of the questionnaire provided during the Virtual Open House (VOH).	N/A	N/A
1	Directed affected landowner	[redacted]	[redacted]	[redacted]@gmail.com	[redacted]	Virtual Open House Questionnaire	22-Jun-22	Landowner noted support for the project, and sewage upgrades in the area. Landowner noted concern for noise and dust, and bedrock.	N/A	N/A
2	Interested citizen/ member of interest group	[redacted]	N/A	[redacted]@gmail.com	N/A	Virtual Open House Questionnaire	4-Jul-22	Individual expressed concerns about the project related to climate change and asked that cost information be provided and whether residents were informed about alternates to natural gas.	N/A	N/A
3	Interested citizen	[redacted]	[redacted]	[redacted]@vianet.ca	[redacted]	Virtual Open House Questionnaire	4-Jul-22	Individual emailed questionnaire to the Project email addressed. They expressed concerns about the project related to climated change. Individual listed alternatives to natural gas that residents should consider.	6-Jul-22	Stantec thanked the resident for taking the time to provide their input and noted that their concerns will be included in the Environmental Report.
4	Interested citizen	[redacted]	N/A	not provided	N/A	Virtual Open House Questionnaire	4-Jul-22	Individual expressed concerns about the project related to climate change.	N/A	N/A
5	Interested citizen	[redacted]	[redacted]	[redacted]@gmail.com	[redacted]	Virtual Open House Questionnaire	4-Jul-22	Individual expressed concerns about the project related to climate change.	N/A	N/A
6	Surrounding Landowner	[redacted]	N/A	[redacted]@gmail.com	N/A	Virtual Open House Questionnaire	5-Jul-22	Individual expressed concerns about the project related to climate change.	6-Jul-22	Stantec thanked the resident for taking the time to provide their input and noted that their concerns will be included in the Environmental Report.
7	Interested Citizen	[redacted]	[redacted]	[redacted]@gmail.com	[redacted]	Virtual Open House Questionnaire	5-Jul-22	Individual noted concerns about climate change, and impacts on drainage. The individual asked for more information about the process timing and consultation with Indigenous communities. They also noted a dissatifcation with the vitual consultation format.	26-Jul-22	Stantec responded to provide a link to the Enbridge project website where process schedule information can be found, as well as a link to Enbridge' Indigenous consultation policy.
8	Interested citizen	[redacted]	[redacted]	[redacted]@hotmail.com	N/A	Virtual Open House Questionnaire	6-Jul-22	Individual expressed concerns about the project related to climate change.	N/A	N/A
9	Surrounding Landowner	[redacted]	N/A	[redacted]@hotmail.com	N/A	Virtual Open House Questionnaire	6-Jul-22	Individual expressed concerns about the project related to climate change.	N/A	N/A
10	Interested Citizen	[redacted]	N/A	not provided	N/A	Virtual Open House Questionnaire	6-Jul-22	Individual expressed concerns about the project related to climate change.	N/A	N/A
11	Interested Citizen	[redacted]	[redacted]	[redacted]63@gmail.com	[redacted]	Virtual Open House Questionnaire	6-Jul-22	Individual expressed concerns about the project related to climate change	N/A	N/A

Enbridge Gas Inc.
Hidden Valley Community Expansion Project
Correspondence Tracking • Landowner and Public

Comment Number	Stakeholder Group	Correspondent	Address	Email	Phone Number	Method of Communication	Date of Correspondence	Reponses Provided	Date Response Provided	Summary of Response
								and noted concerns about impacts to biodiversity.		
12	Interested citizen	[redacted]	[redacted]	[redacted]@outlook.com	[redacted]	Virtual Open House Questionnaire	7-Jul-22	Individual expressed concerns about the project related to climate change, impacts to roadways, and wildlife habitat.	N/A	N/A
13	Interested Citizen	[redacted]	[redacted]	[redacted]@yahoo.com	[redacted]	Virtual Open House Questionnaire	7-Jul-22	Individual expressed concerns about the project related to climate change and would prefer heat pumps and retrofitting to natural gas.	N/A	N/A
14	Surrounding Landowner	[redacted]	[redacted]	[redacted]@gmail.com	[redacted]	Virtual Open House Questionnaire	7-Jul-22	Individual expressed concerns about the project related to climate change.	N/A	N/A
15	Surrounding Landowner	[redacted]	[redacted]	[redacted]@gmail.com	[redacted]	Virtual Open House Questionnaire	8-Jul-22	Individual expressed concerns about the project related to climate change and noted their preference for cold climate heat pumps.	N/A	N/A
16	Interested Citizen	[redacted]	[redacted]	[redacted]@vanet.ca	[redacted]	Virtual Open House Questionnaire	8-Jul-22	Individual expressed concerns about the project related to climate change.	N/A	N/A
17	Interested Citizen	[redacted]	N/A	N/A	N/A	Virtual Open House Questionnaire	9-Jul-22	Individual expressed concerns about the project related to climate change.	N/A	N/A
18	Directly affected landowner	[redacted]	[redacted]	[redacted]@gmail.com	[redacted]	Virtual Open House Questionnaire	13-Jul-22	Supportive of the project and requests a connection to their street.	26-Jul-22	Indicated that currently their street is included in the project scope but that could change. Provided the Enbridge project website to visit for updates and a link for FAQ regarding community expansion projects.
19	Interested Citizen	[redacted]	N/A	[redacted]@gmail.com	N/A	Virtual Open House Questionnaire	26-Jul-22	Individual expressed interest in the Virtual Open House feedbacks and how it was being incorporated in the Environmental Report.	22-Aug-22	Stantec responded that the Environmental Report is in progress. Comments received from the Virtual Open House will be summarized in the Environmental Report for the project. Once the Environmental Report has been prepared and submitted to the Ontario Energy Board, Enbridge will post the report on their project website, and the Ontario Energy Board will post the report as well. It is expected this will happen sometime in the fall. Stantec also provided web links for the Enbridge project website and Ontario Energy Board, Application Before the Board.

Appendix C:
Existing Conditions Figures



Legend

- Preferred Route
- Study Area (500m)
- Expressway / Highway
- Minor Road
- Watercourse (Intermittent)
- Watercourse (Permanent)
- Waterbody

Bedrock Geology

- 43: Felsic igneous rocks: tonalite, granodiorite, monzonite, granite, syenite; derived gneisses
- 41: Migmatitic rocks and gneisses of undetermined protolith: commonly layered biotite gneisses and migmatites; locally includes

0 150 300 Meters

1:10,000 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2022.
3. Bedrock geology data source: Ontario Geological Survey 2011. 1:250 000 scale bedrock geology of Ontario; Ontario Geological Survey, Miscellaneous Release-Data 126-Revision 1. ISBN 978-1-4435-5704-7 (CD) ISBN 978-1-4435-5705-4

Project Location
District Municipality of Muskoka

160925135 REVA
Prepared by KB on 2022-07-26
Technical Review by SE on 2022-02-01

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
1

Title
Bedrock Geology

645000
646000
647000
5025000
5024000
N
HIGHWAY 60
GRASSMERE ROAD
MORGANS ROAD
GRASSMERE RESORT ROAD
SKYLINE DRIVE
HIDDEN VALLEY ROAD
WOODLAND DRIVE
VALLEY ROAD
SKI CLUB ROAD
ST ANDREWS CIRCLE
DEERHURST HIGHLANDS DRIVE
TREE TOPS LANE
DEERHURST DRIVE
Peninsula Lake

Stantec

Legend
- Preferred Route
- Study Area (500m)
- Expressway / Highway
- Minor Road
- Watercourse (Intermittent)
- Watercourse (Permanent)
- Waterbody

Drift Thickness (m)
High : 52
Low : 0

0 150 300
Meters
1:10,000 (At original document size of 11x17)

Notes
1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2022.
3. Drift thickness data source: Gao, C., Shirota, J., Kelly, R.I., Brunton, F.R. and van Haaften, S. 2006. Bedrock topography and overburden thickness mapping, Southern Ontario; Ontario Geological Survey, Miscellaneous Release—Data 207.

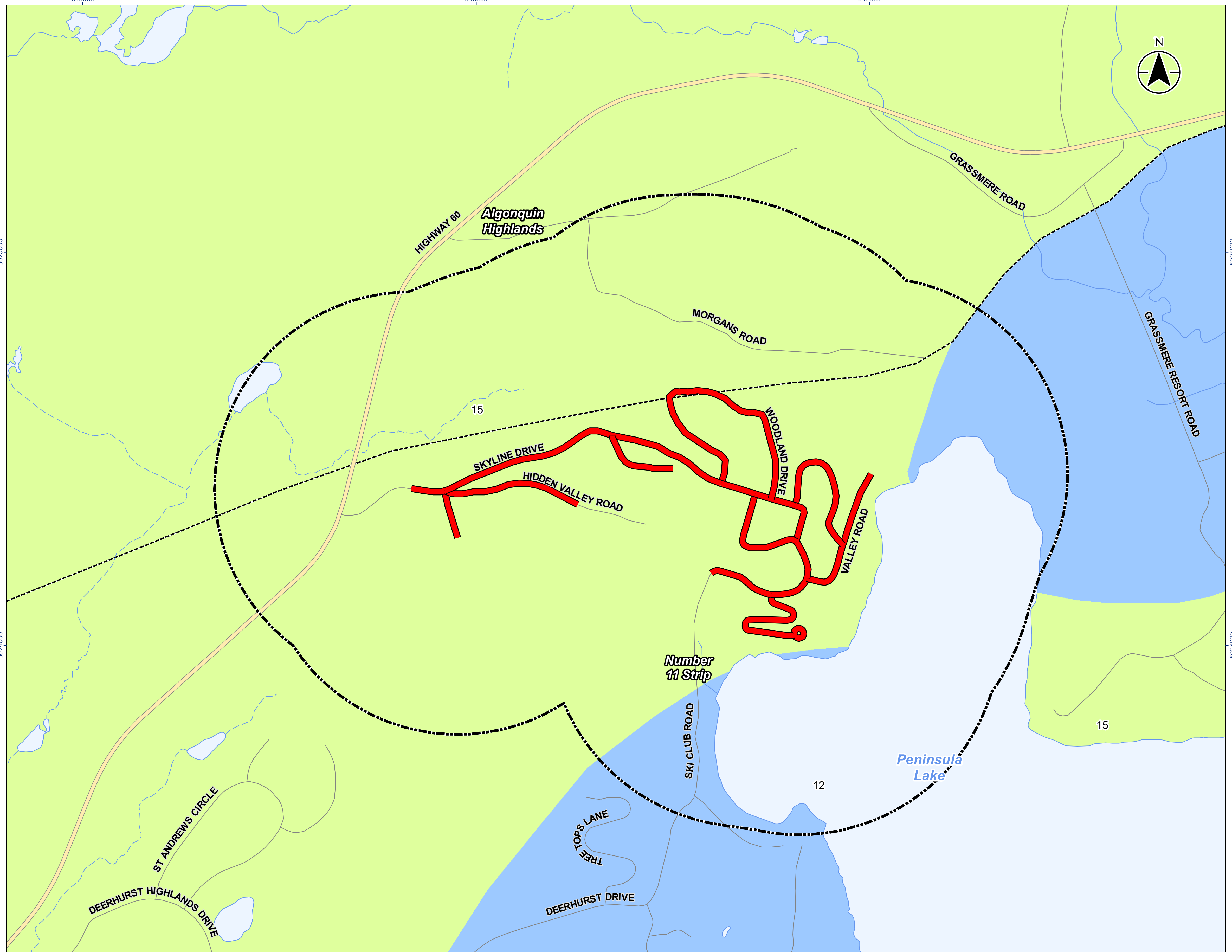
Project Location
District Municipality of Muskoka

160925135 REVA
Prepared by KB on 2022-07-26
Technical Review by SE on 2021-11-10

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
2

Title
Drift Thickness



Stantec

Legend
- Preferred Route
- Study Area (500m)
- Expressway / Highway
- Minor Road
- Watercourse (Intermittent)
- Watercourse (Permanent)
- Physiographic Region

Physiography
- 12: Clay Plains
- 15: Shallow Till And Rock Ridges

0 150 300 Meters

1:10,000 (At original document size of 11x17)

Notes
1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2022.
3. Physiography data source: Chapman, L.J. and Putnam, D.F. 2007. Physiography of southern Ontario; Ontario Geological Survey, Miscellaneous Release—Data 228.

Project Location
District Municipality of Muskoka

160925135 REVA
Prepared by KB on 2022-07-26
Technical Review by SE on 2022-02-01

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
3

Title
Physiography

645000
646000
647000
5025000
5024000
N
1
2
20
5a
9c
8a
HIGHWAY 60
GRASSMERE ROAD
MORGANS ROAD
GRASSMERE RESORT ROAD
SKYLINE DRIVE
HIDDEN VALLEY ROAD
WOODLAND DRIVE
VALLEY ROAD
SKI CLUB ROAD
ST ANDREWS CIRCLE
DEERHURST HIGHLANDS DRIVE
TREE TOPS LANE
DEERHURST DRIVE
Peninsula Lake

Stantec

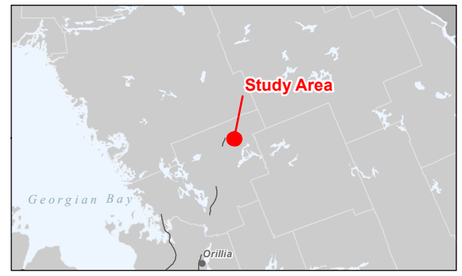
Legend
- Preferred Route
- Study Area (500m)
- Expressway / Highway
- Minor Road
- Watercourse (Intermittent)
- Watercourse (Permanent)
- Waterbody

Surficial Geology
- 20: Organic deposits
- 9c: Coarse-textured glaciolacustrine deposits (Foreshore-basinal deposits)
- 8a: Fine-textured glaciolacustrine deposits (Massive-well laminated)
- 5a: Shield-derived silty to sandy till
- 2: Precambrian bedrock-drift complex
- 1: Precambrian bedrock

0 150 300 Meters

1:10,000 (At original document size of 11x17)

Notes
1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2022.
3. Surficial geology data source: Ontario Geological Survey 2010. Surficial geology of Southern Ontario: Ontario Geological Survey, Miscellaneous Release--Data 128-REV ISBN 978-1-4435-2483-4.



Project Location
District Municipality of Muskoka

160925135 REVA
Prepared by KB on 2022-07-26
Technical Review by SE on 2021-11-10

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
4

Title
Surficial Geology

Stantec

Legend
- Preferred Route
- Study Area (500m)
- Watercourse (Intermittent)
- Watercourse (Permanent)
- Waterbody

MECP Water Well Record
- Monitoring
- Municipal
- Other
- Use Not Identified

0 150 300 Meters

1:10,000 (At original document size of 11x17)

Notes
1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2022.
3. Orthoimagery © First Base Solutions, 2022. Imagery Date, 2008.
4. MECP water well record locations have been positioned based on published UTM coordinates and their locations should be considered approximate.
5. Contains Information made available under the Trent Conservation Coalition Open Data Licence v2.

Project Location
District Municipality of Muskoka

160925135 REVA
Prepared by KB on 2022-07-26
Technical Review by SE on 2021-11-10

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
5

Title
Groundwater Conditions

645000
646000
647000
5025000
5024000
N
W
7
6
4
HIGHWAY 60
GRASSMERE ROAD
MORGANS ROAD
GRASSMERE RESORT ROAD
WOODLAND DRIVE
SKYLINE DRIVE
HIDDEN VALLEY ROAD
VALLEY ROAD
SKI CLUB ROAD
TOPS LANE
TREE
ST ANDREWS CIRCLE
DEERHURST HIGHLANDS DRIVE
DEERHURST DRIVE
Peninsula Lake

Stantec

Legend

- Preferred Route
- Study Area (500m)
- Expressway / Highway
- Minor Road
- Watercourse (Intermittent)
- Watercourse (Permanent)
- Waterbody

Soil Capability Classification of Agriculture

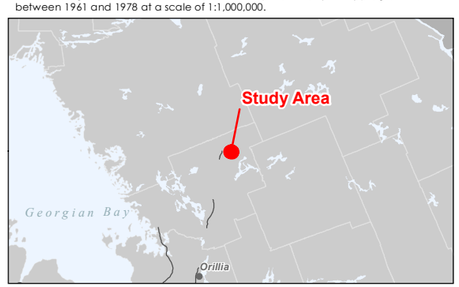
- 1: Soils in this class have no significant limitations in use for crops
- 2: Soils in this class have moderate limitations that restrict the range of crops or require moderate conservation practices
- 3: Soils in this class have moderately severe limitations that restrict the range of crops or require special conservation practices
- 4: Soils in this class have severe limitations that restrict the range of crops or require special conservation practices
- 5: Soils in this class gave very severe limitations that restrict their capability in producing perennial forage crops, and improvement practices are feasible
- 6: Soils in this class are capable only of producing perennial forage crops, and improvement practices are not feasible
- 7: Soils in this class have no capacity for arable culture or permanent pasture
- Water
- Organic Soils (not placed in capability classes)
- CLI Unavailable

0 150 300 Meters

1:10,000 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2022.
3. Soil Capability for Agriculture, Canada Land Inventory (CLI) Map published by Canada's Agricultural Rehabilitation and Development Act (ARDA) programme between 1961 and 1978 at a scale of 1:1,000,000.



Project Location
District Municipality of Muskoka

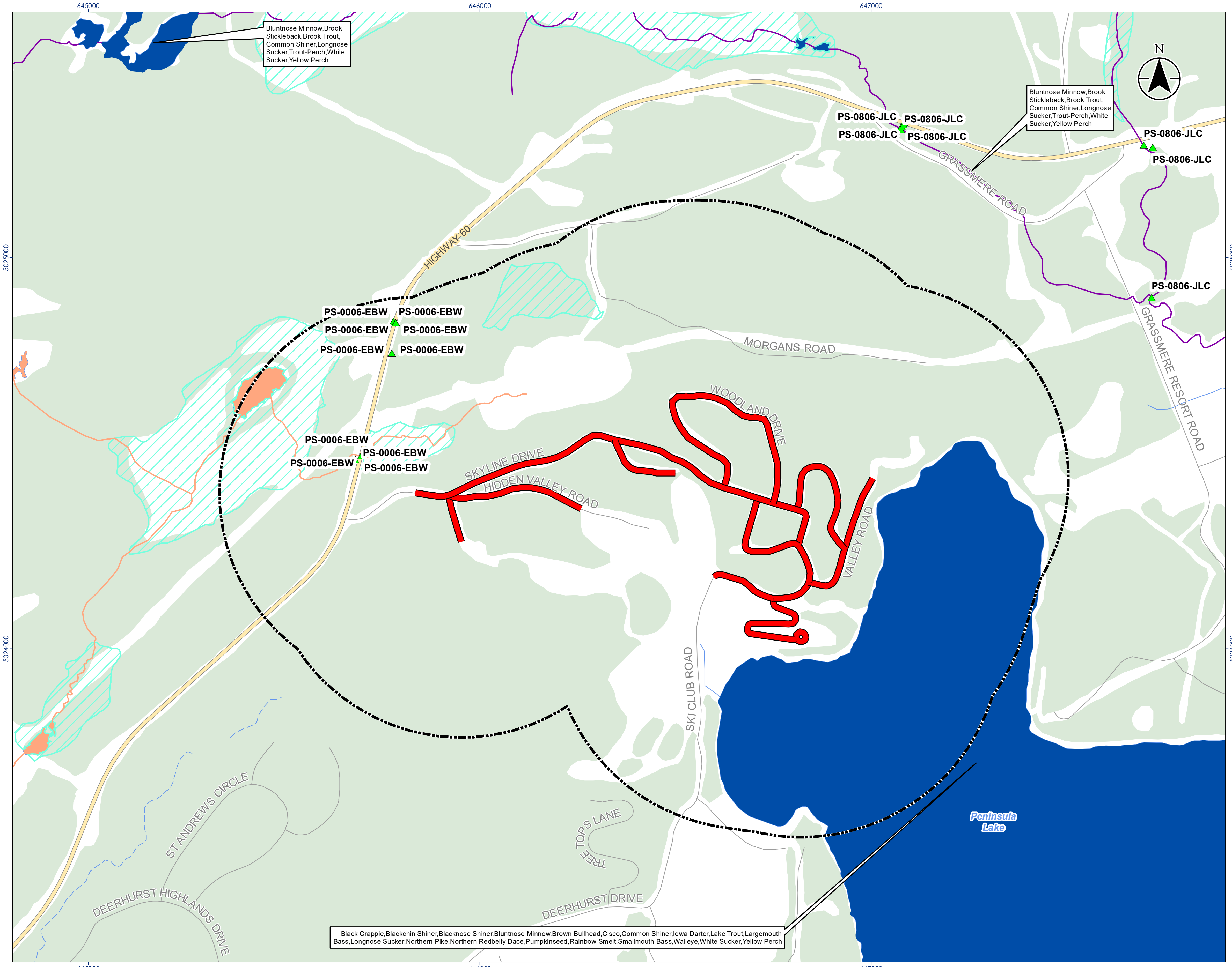
160925135 REVA
Prepared by KB on 2022-07-26
Technical Review by SE on 2022-02-01

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
6

Title
Soil Capability

\\corp.ads\data\Virtual Workspace\workgroup\169\Active\160925135\03_data\gis_cad\gis\mxds\apx\report_figures\ER\160925135_ApxC_Fig06_Soil_Capabilities.mxd Revised: 2022-07-26 By: bskraut



Stantec

Legend

- Preferred Route
- Study Area (500m)
- Fish Survey Point (LIO - ARA)
- Expressway / Highway
- Minor Road
- Thermal Regime, Cold
- Thermal Regime, Warm
- Watercourse (Intermittent)
- Watercourse (Permanent)
- Thermal Regime, Cold
- Thermal Regime, Warm
- Waterbody
- Wetland, Not evaluated per OWES
- Wooded Area

0 150 300 Meters

1:10,000 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2022.

Project Location
District Municipality of Muskoka

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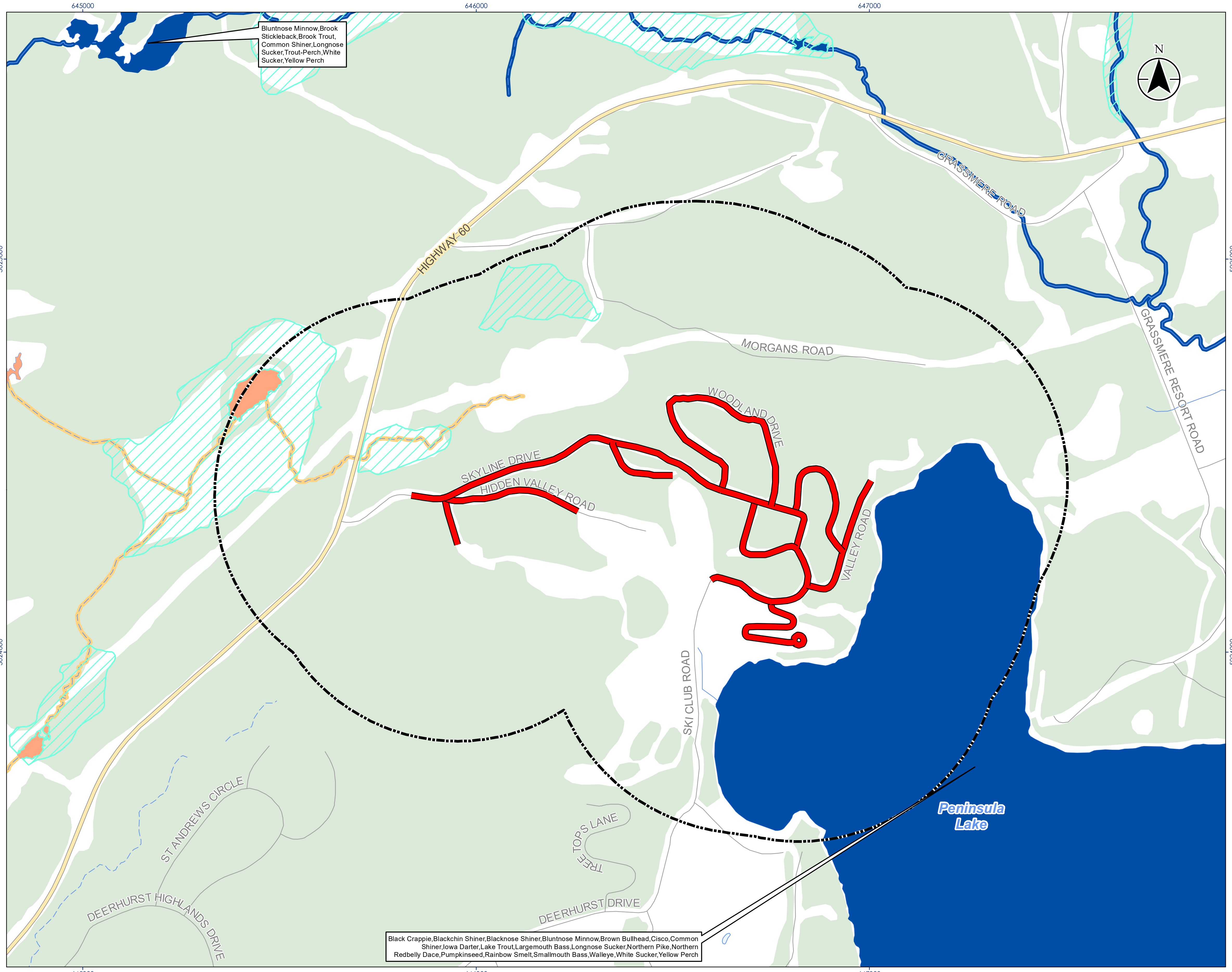
Prepared by KB on 2022-07-26
Technical Review by SE on 2022-02-01

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
7

Title
Designated Natural Heritage Features



Stantec

Legend

- Preferred Route
- Study Area (500m)
- Cold Water, Thermal Regime
- Warm Water, Thermal Regime
- Expressway / Highway
- Minor Road
- Watercourse (Intermittent)
- Watercourse (Permanent)
- Thermal Regime, Cold
- Thermal Regime, Warm
- Waterbody
- Wetland, Not evaluated per OWES
- Wooded Area

0 150 300 Meters

1:10,000 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2022.

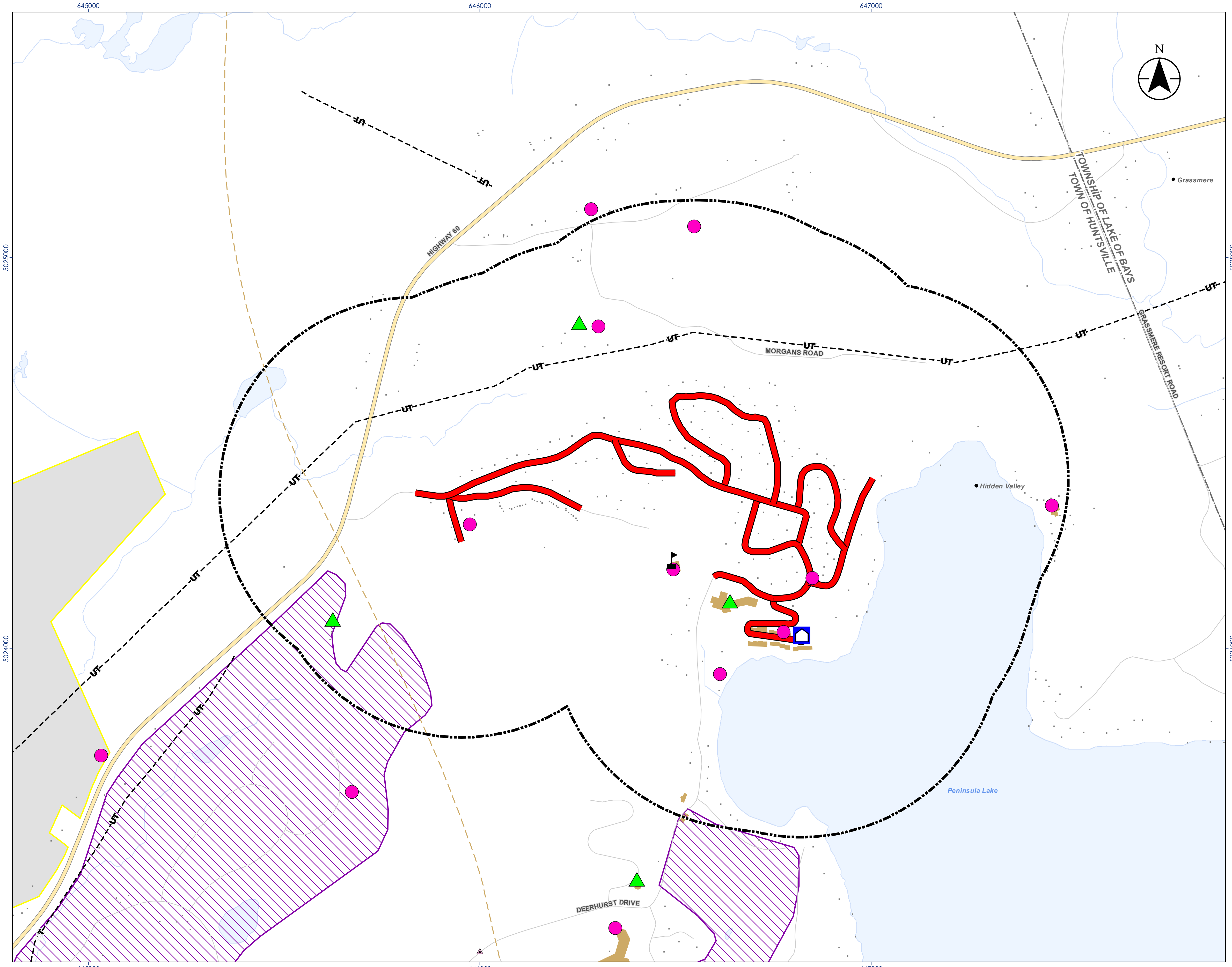
Project Location
District Municipality of Muskoka

160925135 REVA
Prepared by KB on 2022-07-26
Technical Review by SE on 2022-02-01

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
8

Title
Proposed Watercourse Crossings



Stantec

Legend

- Preferred Route
- Study Area (500m)

Socio-Economic Features

- Bed and Breakfast
- Recreation
- Residential Community
- School
- Golf Course
- Airport (Official)

Base / Environmental Features

- Building Location
- Harardous Waste
- Village
- Trail
- Utility Transmission Corridor
- Expressway / Highway
- Minor Road
- Watercourse
- Building
- Municipal Boundary - Lower Tier
- Waterbody

0 150 300 Meters

1:10,000 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2022, Ministry of the Environment and Climate Change, 2022.
3. Golf Course location obtained from CanVec dataset by Natural Resources Canada. 2022.

Project Location
District Municipality of Muskoka

160925135 REVA
Prepared by KB on 2022-07-26
Technical Review by SE on 2022-02-01

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
9

Title
Socioeconomic Features

Appendix D: Significant Wildlife Habitat Assessment for The Hidden Valley Community Expansion Project

Table D-1: Significant Wildlife Habitat Assessment

Feature	Wildlife Habitat Type	Criteria	Results of Desktop and Field Habitat Assessment
Seasonal Concentration Areas	Waterfowl Stopover and Staging Area (Terrestrial and Aquatic)	Fields with evidence of annual spring flooding from meltwater or runoff; aquatic habitats such as ponds, marshes, lakes, bays, and watercourses used during migration, including large marshy wetlands.	**Candidate SWH potentially present** on Peninsula Lake.
	Shorebird Migratory Stopover Area	Beaches and un-vegetated shorelines of lakes, rivers, and wetlands.	**Candidate SWH potentially present** on Peninsula Lake.
	Raptor Wintering Area	Combination of fields and woodland (>20 ha).	Candidate SWH not considered present due to the lack of a forested landscape interspersed with meadows present in the Study Area.
	Bat Hibernacula	Hibernacula may be found in caves, mine shafts, underground foundations and karsts.	Candidate SWH not considered present due to the absence of caves, mine shafts and karsts in the Study Area.
	Bat Maternity Colonies	Maternity colonies considered significant wildlife habitat are found in forested ecosites.	**Candidate SWH potentially present** within forested areas of the Study Area.

Feature	Wildlife Habitat Type	Criteria	Results of Desktop and Field Habitat Assessment
	Turtle Wintering Areas	Over-wintering sites are permanent water bodies, large wetlands, and bogs or fens with adequate dissolved oxygen. Water has to be deep enough not to freeze and have soft mud substrate.	**Candidate SWH potentially present** in Peninsula Lake and the wetlands in the Study Area.
	Reptile Hibernaculum	Rock piles or slopes, stone fences, crumbling foundations.	**Candidate SWH potentially present** within the Study Area.
	Colonial-Nesting Bird Breeding Habitat (Bank and Cliff)	Eroding banks, sandy hills, steep slopes, rock faces or piles.	**Candidate SWH potentially present** within the Study Area.
	Colonial-Nesting Bird Breeding Habitat (Tree/Shrubs)	Dead trees in large marshes and lakes, flooded timber, and shrubs, with nests of colonially nesting heron species.	**Candidate SWH potentially present** on Peninsula Lake.
	Colonial-Nesting Bird Breeding Habitat (Ground)	Rock islands and peninsulas in a lake or large river.	**Candidate SWH potentially present** on Peninsula Lake.
	Deer Yarding or Winter Congregation Areas	Deer winter congregation's areas are mapped by NDMNRF and species use surveys are not required.	**SWH identified** within the forested west of Highway 60.

Feature	Wildlife Habitat Type	Criteria	Results of Desktop and Field Habitat Assessment
Rare Vegetation Communities	Sand Barren, Alvar, Cliffs and Talus Slopes	Sand barren, Alvar, Cliff and Talus ELC Community Classes, and other areas of exposed bed rock and patchy soil development, near vertical exposed bedrock and slopes of rock rubble.	To be confirmed during future ELC surveys.
	Shallow Atlantic Coastal Marsh	Shallow marsh occurs on shallow mineral (sand) or mineral organic (sandy peat) shoreline subject to low wave energy, on inland lakes and beaver ponds particularly those that experience fluctuating water levels from year to year (i.e., some years with exposed shorelines in summer /fall).	To be confirmed during future ELC surveys.
	Old-growth Forest	Relatively undisturbed, structurally complex; dominant trees >100 years' old.	To be confirmed during future ELC surveys.
	Bog	Any size G126, G137-138 community.	To be confirmed during future ELC surveys.
	Tallgrass Prairie and Savannah	Open canopy habitats (tree cover < 60%) dominated by prairie species.	To be confirmed during future ELC surveys.
	Other Rare Vegetation Communities	Provincially Rare S1, S2 and S3 vegetation communities listed by the NHIC.	To be confirmed during future ELC surveys.

Feature	Wildlife Habitat Type	Criteria	Results of Desktop and Field Habitat Assessment
Specialized Habitat for Wildlife	Waterfowl Nesting Area	Upland habitats adjacent to wetlands (within 120 m).	**Candidate SWH potentially present** on Peninsula Lake and the various wetlands throughout the Study Area.
	Bald Eagle and Osprey nesting, Foraging, and Perching Habitat	Treed communities adjacent to rivers, lakes, ponds, and other wetlands with stick nests of Bald Eagle or Osprey.	**Candidate SWH potentially present** on Peninsula Lake.
	Woodland Raptor Nesting Habitat	Forested ELC communities >30 ha with 10 ha of interior habitat.	**Candidate SWH potentially present** within the forested areas of the Study Area.
	Turtle and Lizard Nesting Areas	Exposed soil, including sand and gravel in open sunny areas near wetlands.	**Candidate SWH potentially present** adjacent to Peninsula Lake and the various wetlands throughout the Study Area.
	Seeps and Springs	Any forested area with groundwater at surface within the headwaters of a stream or river system.	**Candidate SWH potentially present** within the forested areas of the Study Area**.**
	Aquatic Ungulate Feeding Habitat	Habitats may be found in all forested ecosites adjacent to water sources.	**Candidate SWH potentially present** adjacent to Peninsula Lake and the various wetlands throughout the Study Area.
	Ungulate Mineral Licks	Habitats may be found in all forested ecosites adjacent to water sources.	**Candidate SWH potentially present** adjacent to Peninsula Lake and the various wetlands throughout the Study Area.

Feature	Wildlife Habitat Type	Criteria	Results of Desktop and Field Habitat Assessment
	Denning Sites for Mink, Otter, Marten, Fisher and Eastern Wolf	Habitats may be found in all forested ecosites.	**Candidate SWH potentially present** within the forested areas of the Study Area**.**
	Amphibian Breeding Habitat (Woodland and Wetland)	Treed uplands with vernal pools, and wetland ecosites.	**Candidate SWH potentially present** within forested areas and wetlands in the Study Area**.**
	Mast Producing Area	Mature forests >0.5 ha containing numerous large beech and red oak trees that supply the energy-rich mast that wildlife prefer	**Candidate SWH potentially present** within forested areas.
Habitat for Species of Conservation Concern	Marsh Bird Breeding Habitat	Wetlands with shallow water and emergent aquatic vegetation.	**Candidate SWH potentially present** within wetlands in the Study Area**.**
	Open Country Bird Breeding Habitat	Large grasslands and fields (>30 ha).	Candidate SWH not considered present due to the lack of suitable grasslands and fields within the Study Area.
	Shrub/Early Successional Bird Breeding Habitat	Large shrub and thicket habitats (>10 ha).	Candidate SWH not considered present due to the lack of suitable shrub and thicket habitats within the Study Area.
	Special Concern and Rare Wildlife Species	All plant and animal Special Concern and Provincially Rare (S1-S3, SH) element occurrences (EO) within a 1 or 10km grid.	**Candidate SWH potentially present** within the Study Area.

Appendix D: Significant Wildlife Habitat Assessment for the Hidden Valley Expansion Project (Ecoregion 5E)

Feature	Wildlife Habitat Type	Criteria	Results of Desktop and Field Habitat Assessment
Species of Conservation Concern[1] Animal Movement Corridors	Amphibian Movement Corridor	Corridors may be found in all ecosites associated with water. Determined based on identifying significant amphibian breeding habitat (wetland).	**Candidate SWH potentially present** due to the potential amphibian breeding habitat (wetland and/or woodland) within forested areas and wetlands in the Study Area**.**
	Deer Movement Corridors	Corridors may be found in all forested ecosites.	**Candidate SWH potentially present**.

[1] See Section 3.4.4.1 in the report for details on candidate SOCC

Appendix E:
Draft Stage 1 Archaeological Assessment

Stantec

STAGE 1 ARCHAEOLOGICAL ASSESSMENT: HIDDEN VALLEY COMMUNITY EXPANSION PROJECT

Part of Lots 31 to 33, Concession 2, Geographic Township of Chaffey, District Municipality of Muskoka, Town of Huntsville, Ontario

July 28, 2022

Prepared for:
Ryan Park
Enbridge Gas Inc.
50 Keil Drive North
Chatham, Ontario N7M 5J5

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Executive Summary

Stantec Consulting Ltd. (Stantec) was retained by Enbridge Gas Inc. (Enbridge Gas) to complete a Stage 1 archaeological assessment for the installation of new natural gas lines associated with the proposed Hidden Valley Community Expansion Project (the Project). The study area for the Project comprises part of Lots 31 to 33, Concession 2, Geographic Township of Chaffey, District Municipality of Muskoka, Town of Huntsville, Ontario. The study area is approximately 9.0 hectares. Enbridge Gas has indicated that the Project's impact area will be confined to the existing municipal road rights-of-way associated with the Project: Hidden Valley Road, Skyline Drive, Ski Club Road, Mount Pleasant Crescent, Slalom Drive, Woodland Court, Lakeview Crescent, Chalet Crescent, and Turner Drive. The Stage 1 archaeological assessment was triggered by the requirements of Section 4.3.4 of the Ontario Energy Board's (OEB) *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario* (OEB 2016).

The Stage 1 archaeological assessment for the study area was conducted under Project Information Form number P422-0010-2022 issued to Darren Kipping, MA, of Stantec, by the Ministry of Tourism, Culture, and Sport (MTCS). A property inspection of the study area was completed on May 24, 2022.

The Stage 1 background research and property inspection determined that portions of the study area exhibited potential for the identification and recovery of archaeological resources. In accordance with Section 1.3.2 and Section 7.7.4 of the MTCS's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), **Stage 2 archaeological assessment is required for portions of the study area.**

Full and detailed recommendations are provided in the body of the report.

The MTCS is asked to review the results presented and to accept this report into the *Ontario Public Register of Archaeological Reports*.

The Executive Summary highlights key points from the report only; for complete information and findings, the reader should examine the complete report.

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Acknowledgements

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1.0 Project Context

1.1 Development Context

Stantec Consulting Ltd. (Stantec) was retained by Enbridge Gas Inc. (Enbridge Gas) to complete a Stage 1 archaeological assessment for the installation of new natural gas lines associated with the Hidden Valley Community Expansion Project (the Project). The study area for the Project comprises part of Lots 31 to 33, Concession 2, Geographic Township of Chaffey, District Municipality of Muskoka, Town of Huntsville, Ontario (Figure 1). The study area is approximately 9.0 hectares. Enbridge Gas has indicated that the Project's impact area will be confined to the existing municipal road rights-of-way (ROW) associated with the Project: Hidden Valley Road, Skyline Drive, Ski Club Road, Mount Pleasant Crescent, Slalom Drive, Woodland Court, Lakeview Crescent, Chalet Crescent, and Turner Drive. The Stage 1 archaeological assessment was triggered by the requirements of Section 4.3.4 of the Ontario Energy Board's (OEB) *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario* (OEB 2016).

1.1.1 OBJECTIVES

In compliance with the provincial standards and guidelines set out in the Ministry of Tourism, Culture, and Sport' (MTCS) 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), the objectives of the Stage 1 archaeological assessment are as follows:

- To provide information about the study area's geography, history, previous archaeological fieldwork, and current land conditions.
- To evaluate the study area's archaeological potential, which will support recommendations for Stage 2 survey for all or parts of the property.
- To recommend appropriate strategies for Stage 2 survey.

To meet these objectives, Stantec archaeologists employed the following research strategies:

- A review of relevant archaeological, historical, and environmental literature pertaining to the study area.
- A review of the land use history, including pertinent historical maps.
- An examination of the *Ontario Archaeological Sites Database* to determine the presence of registered archaeological sites in and around the study area.
- A property inspection to document areas of archaeological potential.

Permission to enter the study area to document and remove archaeological resources was provided by Enbridge Gas.

1.2 Historical Context

1.2.1 POST-CONTACT INDIGENOUS RESOURCES

"Contact" is typically used as a chronological benchmark when discussing Indigenous archaeology in Canada and describes the contact between Indigenous and European cultures. The precise moment

of contact is a constant matter of discussion. Contact in what is now the province of Ontario is broadly assigned to the 16th century (Loewen and Chapdelaine 2016).

The nature of Indigenous settlement size, population distribution, and material culture shifted as European settlers encroached upon Indigenous territory. However, despite this shift, written accounts of material culture and livelihood, correlations of historically recorded villages to their archaeological assemblages, and the resemblances of those sites to more ancient sites have revealed an antiquity to documented cultural expressions that confirms a deep historical continuity to systems of ideology and thought (Ferris 2009:114). As a result, Indigenous peoples have left behind archaeological resources throughout the region which show continuity with past peoples, even if they have not been explicitly recorded in Euro-Canadian documentation.

The study area is located in the Muskoka district, part of which forms part an area sometimes referred to modernly as “The Land Between” for its geographic location between the arable lands in southern Ontario and the Canadian Shield to the north. However, that moniker also functions as an apt description for an interaction sphere between Indigenous nations. The start of the Contact period was one of complex interaction between the Huron-Wendat Iroquoian speaking horticulturalists living in semi-permanent villages, located around the southern end of Georgian Bay to the south, and more mobile Anishinaabe peoples living along the rivers and lakes to the north (Heidenreich 1971, Map 24). As interactions with Europeans (primarily the French) intensified through the fur trade and later the exploration of the Great Lakes region, travel along the eastern shore of Georgian Bay and through the Severn and French rivers included a greater mix of people, and an increase in the trade of goods between Indigenous nations and between Indigenous and European peoples.

The Michi Saagiig Nishnaabeg (Mississauga Anishinaabeg) traditional homeland stretched along the north shore of Lake Ontario and its tributary rivers from present-day Gananoque in the east to Long Point on Lake Erie in the west. In the winter, the communities dispersed into smaller groups and travelled in-land to the north, to the area around present-day Bancroft, the Haliburton Highlands and into the Muskoka area. Mississauga oral history relates that their ancestors have occupied this part of southern Ontario from at least the time of the last deglaciation (Migizi and Kapyrka 2015).

The Mississauga traditional territory was located between two powerful confederacies, the Three Fires Confederacy (consisting of the Odawa, Ojibwa, and Pottawatomi) located to the north and west, and the Haudenosaunee (Five Nations Iroquois) Confederacy on the south shore of Lake Ontario in present-day New York State. In this geo-political context, the Mississauga positioned themselves as peacekeepers among the various Indigenous nations, acting as negotiators and emissaries (Migizi and Kapyrka 2015). In the 1640s, the Five Nations Iroquois began an aggressive campaign of territorial expansion, in particular between the north shore of Lake Ontario and what is now central Ontario. In 1649, raiding by the Seneca and Mohawk north of Lake Ontario, coinciding with wide-spread occurrence of infectious disease and famine among the Huron-Wendat, Tionontate (Petun), and Attiwandaron (Neutral) nations resulted in the latter groups’ dispersal from the region, and the Seneca establishing regional dominance (Heidenreich 1978). At this time, the Michi Saagiig Anishinaabeg literally “paddled away” and headed to their northern hunting territories to wait for the “smoke to clear.” There are Jesuit accounts of tens of thousands of Mississauga people gathered near the Missisaugi River at this time.

In 1667, surviving Huron-Wendat warriors allied with the Ojibwa and Mississaugas to counterattack the Iroquois who had settled along the north shore of Lake Ontario. By 1690, the Mississauga had

begun moving back into the lower Great Lakes basin (Konrad 1981; Rogers 1978). Mississauga oral traditions, as told by Chief Robert Paudash and recorded in 1905, indicate that after the Mississauga defeat of the Mohawk, the Mohawk retreated to their homeland south of Lake Ontario and a peace treaty was negotiated between those groups around 1695 (Paudash 1905). Upon the Mississaugas' return they began to re-establish their role as peacekeepers in the region, extending that to include the incoming Euro-Canadian settlers (Curve Lake First Nation no date [n.d.]; Kapyrka 2018). The Huron-Wendat permanently left the region, moving to the east in Quebec and to the southwest in the present-day United States.

French maps of the late 17th century indicate the presence of the Mississauga in the Muskoka area. When the British were exploring the same region in the middle and late 18th century, they noted the presence of "Chippewas", although they used the terms Chippewa and Mississauga interchangeably (Murray 1963: liii). The chief of the Chippewas was Yellowhead (Mesquakie), from which the name Muskoka is derived (Murray 1963: liii).

The expansion of the fur trade led to increased interaction between European and Indigenous people, and ultimately intermarriage between European men and Indigenous women. During the 18th century the progeny of these marriages began to no longer identify with either their paternal or maternal cultures, but instead as Métis. The ethnogenesis of the Métis progressed with the establishment of distinct Métis communities along the major waterways in the Great Lakes of Ontario. Métis communities were primarily focused around the upper Great Lakes and along Georgian Bay, however, Métis people have historically lived throughout Ontario (Métis Nation of Ontario 2022; Stone and Chaput 1978:607-608).

Since contact with European explorers and immigrants, and later, with the establishment of provincial and federal governments (the Crown), the lands within Ontario have been included in various treaties, land claims, and land cessions. Following the American Revolutionary War, Britain focused on the settlement of European immigrants into what became the province of Upper Canada in 1791. To enable widespread settlement, the British government negotiated a series of treaties with Indigenous peoples. The first treaty signed between the Crown and the Indigenous peoples of the area was the Robinson-Huron Treaty (treaty number 61) signed on September 9, 1850. Morris (1943) describes the Robinson-Huron Treaty as part of:

> *two agreements signed in September of 1850…and secured virtually the whole of the Upper Canadian northwest for government use" (Surtees 1986: 19). This agreement includes "the eastern and northern shores of Lake Huron from Penetanguishene to Sault Ste. Marie, and thence to batchewanaung Bay on the northern shore of Lake Superior, together with the Islands in said lakes, opposite to the shores thereof and inland to the height of land which separates the territory covered by the Charter of the Honorable Hudsons Bay Company from Canada, as well as all unconceeded lands within the limits of Canada West, to which they have any just claim of the other part.*
>
> (Morris 1943:24-25)

The parcel surrendered "contained 35,700 square miles of territory" (Surtees 1986: 19). Twenty-one reserves were included in the treaty, the locations of which could be chosen by the chiefs. The treaty was likely inspired by the promotion of mining activity in the area (Surtees 1986: 20).

In addition to the Robinson-Huron Treaty, the study area also falls within the Williams Treaty lands. Figure 2 provides a map of southwestern Ontario illustrating early treaties and purchases (Government of Canada n.d.) and shows the location of the study area within the Williams Treaty lands (labelled AF).

The Williams Treaty was between the Crown and the Chippewas and Mississaugas in this area are part of "[t]hree separate and large parcels of land in southern and central Ontario…acquired by the Government of Canada in 1923" (Surtees 1986:1). This particular parcel includes a "very large tract lying between Lake Huron and the Ottawa River bounded on the north by the Mattawa River-Lake Nipissing and French Line and on the south by earlier treaties concluded in 1818 and 1819" (Surtees 1986:1). "The parcel hereby surrendered contains 17,600 square miles more or less" (Morris 1943:61). It is also worth noting that this area also "included substantial portions of land that had been the object of previous land cession treaties" (Surtees 1986:1).

Within the Muskoka District the Wasauksing First Nation reserve was established on Parry Island, near Parry Sound, in 1850 as part of the Robinson Huron treaty. Initially occupied through the early 1800s, the community of Wasauksing originally constituted two villages, known as Niisaakiing (Upper Village) and Nishnaabe-oodenaang (Lower Village), of Ojibwe, Odawa, and Pottawatomi. A third village, Gamiing (Middle Village) was settled in 1880 by additional Ojibwe and Pottawatomi (Wasauksing First Nation Lands and Natural Resources n.d.).

The Wahta Mohawk Territory, west of Bala, was founded in 1881 when the Sulpician Order purchased a block of land in hopes of removing the Mohawk community at Kanesatake in Quebec because of a dispute over land ownership. In the end only about one-fifth of the community consented to move (Smith 1982).

In the 1830s many Pottawatomi left the expanding United States to settle in parts of southern Ontario, notably at Walpole Island near Sarnia, Manitoulin Island, and Beausoleil Island and Christian Island in southern Georgian Bay (First Nations of Simcoe County n.d.). Around 1880 nineteen Odawa and Pottawatomi families left Christian Island to settle at Moose Deer Point. The Moose Deer Point reserve was established in 1917.

1.2.2 EURO-CANADIAN RESOURCES

The earliest European interaction in the Muskoka district occurred in the early 1600s, first by Etienne Brule who was sent by Samuel de Champlain to live with the Algonquin and Huron over the winter of 1610-1611. In 1615 the Recollet priest Joseph Le Caron and 12 other Frenchmen set out to Huronia along the Ottawa and French rivers route that took them through the north end of Muskoka and along the eastern shore of Georgian Bay. They were followed by Champlain in the same year when he overwintered with the Huron (Murray 1963). Over the next 65 years French traders and missionaries followed, taking both the Ottawa-French River route and the route that accessed Georgian Bay via the Severn River from Lake Ontario.

It was almost a century after the last of the French missionaries that the British began to show interest in the area. Although knowledge of the Severn River route was widely known in the 1760s it was not until 1780 that General Frederick Haldimand, Governor of Canada, issued orders for a survey party to follow and survey the route from Lake Ontario along the Toronto portage, Lake Simcoe, and the Severn River (Murray 1963: xlii). Although the survey was fraught with inaccuracies it did provide the

first detailed description of the Severn River. Further exploration occurred in 1788 when Gother Mann made a report on the islands of Georgina Bay, Matchedash Bay, and the Severn River (Murray 1963: xlii). In the spring of 1793 Lieutenant-Governor John Graves Simcoe and a party followed the Toronto route to Georgian Bay, encountering a fur trader by the name of Cowan who had been living in the area for 15 years (Murray 1963: xliii).

1.2.2.1 District of Muskoka

In 1851, the District of Muskoka was annexed by Simcoe County and the *Parliamentary Representation Act* of 1853 divided Simcoe County into two ridings (Mika and Mika 1981). Land was made available for settlement under the *Public Lands Act* of 1860, but settlement was slow until the clearing of Muskoka Road. During the 1850s and 1860s, the government, in attempting to open up the districts of the north, began the construction of "Colonization Roads" (Ontario Heritage Trust 2018). Muskoka Road was one such colonization road and construction began in 1858 starting in Washago to the interior of Muskoka. It was completed to the site of Bracebridge by 1861 and by 1863 the road had been completed to the area where Huntsville eventually grew (Murray 1963: lxx). In 1868, the townships in Muskoka District included Cardwell, Macaulay, Watt, Brunel, Draper, McLean, Muskoka, and Stephenson (Mika and Mika 1981).

1.2.2.2 Town of Huntsville

The earliest European settlement in the Huntsville area, in the first half of the 1860s, was by trappers and fishers located along the south and east shores of Lake Vernon (Murray 1963: cix). European settlers began arriving in the Huntsville area in February 1868 under the *Free Grants and Homestead Act*. The land given under the Free Grants were generally inaccessible for farming, so many relied on deer, berries, and maple syrup for their sustenance and livelihood (Souter 2016). In 1869 Captain George Hunt, born on the island of Corfu in 1830, settled on land that became part of the original town site, now at the northeast corner of John and Main streets (Murray 1963: cix; Souter 2016). It was Hunt who supervised the construction of the last three miles of road from where the Muskoka Road ended to the new settlement, and in 1870 a post office was established, named Huntsville in honour of Captain Hunt (Murray 1963: cix), who also became the Postmaster (Town of Huntsville 2021).

By 1878 Huntsville was home to two hotels, a carpenter, a cabinet maker, a blacksmith, a shoemaker, an apothecary, a tinsmith, a wagon shop, and a dressmaker (Murray 1963: 374). By 1886, the railway had arrived in Huntsville, which had been incorporated as the Village of Huntsville, with a population of 700. The railway brought increased prosperity to Huntsville (Murray 1963: ciii) and by 1901 the population of Huntsville had reached 2,000 people, sufficient for it to be incorporated as a town (Town of Huntsville 2021).

The main industries during Huntsville's early days were lumber and leather production, with many tanneries employing laborers from Italy. With the large body of Italian residents, Huntsville eventually sported the provinces first pasta factories, which resided on Main Street (Souter 2016).

Figure 3 shows the 1879 settlement pattern as related to the study area. In discussing 19th century mapping it must be remembered that historical county atlases were produced primarily to identify factories, offices, residences and landholdings of subscribers and were funded by subscription fees.

Landowners who did not subscribe were not always listed on the maps (Caston 1997:100). As such, all structures were not necessarily depicted or placed accurately (Gentilcore and Head 1984).

Review of historic mapping also has inherent accuracy difficulties due to potential error in georeferencing. Georeferencing is conducted by assigning spatial coordinates to fixed locations and using these points to spatially reference the remainder of the map. Due to changes in fixed locations over time (e.g., road intersections), errors / difficulties of scale and the relative idealism of the historic cartography, historic maps may not translate accurately into real space points. This may provide inconsistencies during the historic map review.

Table 1: Applicable Landowner Summary from the 1879 Map of the District of Muskoka (Hamilton 1879)

Lot	Concession	Landowner	Comment
31	2	John Brooks	Main road depicted along north boundary of lot. No structures or other items of significance. Residence likely in Lot 30, Concession 2.
32	2	F. Morgan	Main road depicted along north boundary of lot. A single structure is depicted in the northeast portion of the lot, along roadway.
33	2	J. Grace	Main road depicted along north boundary of lot. No structures depicted on lot. Residence likely in Lot 33, Concession 1.

1.3 Archaeological Context

1.3.1 THE NATURAL ENVIRONMENT

The study area is contained within the Number 11 Strip and Algonquin Highlands physiographic regions, as identified by Chapman and Putnam (1984). The Number 11 Strip is described as a narrow strip of sand, silt, and clay deposits from Gravenhurst to North Bay. This strip was just below the shoreline of glacial Lake Algonquin and the streams entering the lake dropped sediments as deltas in the strip. The Algonquin Highlands is described as a large area of sandy glacial till underlain by granite and other Precambrian rocks. The thickness of soil over the bedrock varies significantly and in approximately 5% of the area the bedrock is exposed to the surface. The study area is located on a band of clay deposits that run along the southeast shore of Lake Vernon, the north shore of Fairy Lake, and the north and east shores of Peninsula Lake (Chapman and Putnam 1984).

The closest potable water source to the study area is Peninsula Lake, which is located 120 metres east of the study area.

1.3.2 PRE-CONTACT INDIGENOUS RESOURCES

The following summary of the pre-contact occupation of southern Ontario is based on syntheses in Archaeologix (2008), Ellis and Ferris (1990), and Sutton (1990). A summary of the generalized cultural chronology of eastern and southern Ontario is provided in Table 2.

Table 2: Generalized Overview of Pre-contact Indigenous Cultural Chronology

Archaeological Period	Time Period	Characteristics
Early Paleo	10000 – 8400 Before Common Era (BCE)	Fluted projectile points; caribou and extinct Pleistocene mammal hunters, small camps
Late Paleo	8400 – 8000 BCE	Hi-Lo projectile points; smaller but more numerous sites
Early Archaic	8000 – 6000 BCE	Nettling and bifurcate projectile points; slow population growth, development of specialized tools
Middle Archaic	6000 – 2500 BCE	Brewerton-like projectile points; environment similar to present, hunting and nut processing, decreased residential mobility
Late Archaic	2500 – 1800 BCE	Lamoka (narrow projectile points), increasing site size
	1800 – 1500 BCE	Broad projectile points, large chipped lithic tools
	1500 – 1100 BCE	Small projectile points, introduction of bow hunting
Terminal Archaic	1100 – 950 BCE	Hind projectile points, emergence of true cemeteries, seasonal mobility patterns
Early Woodland	950 – 400 BCE	Meadowood complex; introduction of pottery, polished stone tools, diverse subsistence
Middle Woodland	400 BCE –500 Common Era (CE)	Dentate/pseudo-scallop pottery, increased sedentism, seasonal mobility patterns, more elaborate mortuary ceremonialism
Transitional Woodland	550 – 900 CE	Princess Point complex, cord-wrapped stick pottery decoration, introduction of corn
Late Woodland	900 – 1300 CE	Early Late Woodland, emergence of agricultural villages
	1300 – 1400 CE	Middle Late Woodland, large longhouses (100+ metres)
	1400 – 1650 CE	Late Late Woodland, group warfare and displacement

Identifiable human occupation of Ontario begins just after the end of the Wisconsin Glacial period. The first human settlement can be traced back approximately 12,000 years, when this area was settled by Indigenous groups that had been living to the south of the emerging Great Lakes. This initial occupation is referred to as the "Paleo" archaeological culture.

Early Paleo (*circa* [ca.] 10000 to 8400 BCE) settlement patterns suggest that small groups, or “bands”, followed a pattern of seasonal mobility extending over large territories. Many (although by no means all) of the Early Paleo sites were located on former beach ridges associated with glacial lakes such as Lake Algonquin and Lake Iroquois. Vegetative cover of these areas would have consisted of open spruce parkland, given the cool climatic conditions. Sites tend to be located on well-drained loamy soils, and on elevations in the landscape, such as knolls. Large game, such as caribou, mastodon, and mammoth, appears to be of central importance to the sustenance of these early inhabitants.

The Late Paleo period (ca. 8400 to 8000 BCE) is relatively poorly understood, the result of less research focus. As the climate warmed, the spruce parkland was gradually replaced from south to north with closed coniferous forests. As a result, many of the large game species that had been hunted in the Early Paleo period either moved north or became locally extinct. Late Paleo peoples covered large territories as they moved around to exploit different resources.

The transition from the Paleo period to the Archaic archaeological culture of Ontario prehistory is marked by the development of new tool technologies, correlated with increasing resource diversification. During the Early Archaic period (ca. 8000 to 6000 BCE), the jack and red pine forests that characterized the Late Paleo environment were replaced by forests dominated by white pine with some associated deciduous elements. Early Archaic projectile points differ from Paleo forms most notably by the presence of side and corner notching on their bases. A ground stone tool industry, including celts and axes, also emerges, indicating that woodworking was an important component of the technological development of Archaic peoples. Although there may have been some reduction in the degree of seasonal mobility, it is still likely that population density during the Early Archaic was low, and band territories large.

The development of more diversified tool technology continued into the Middle Archaic period (6000 to 2500 BCE). The presence of grooved stone net-sinkers suggests an increase in the importance of fishing in subsistence activities. Bannerstones also appear during this period and are thought to be weights for "atlatls" or spear-throwers. The increased reliance on local, often poor-quality chert resources for chipped stone tools suggests that in the Middle Archaic, groups inhabited smaller territories lacking high quality raw materials. This reduction in territory size appears to have been the result of gradual region-wide population growth, which forced a reorganization of subsistence patterns. A major development of the later part of the Middle Archaic period was the initiation of long-distance trade. Native copper tools manufactured from sources near Lake Superior were being widely traded in eastern Ontario (‘Old Copper complex’). A distinctive occupation or tradition, known as the Laurentian Archaic, appears in eastern Ontario, western Quebec, northern New York, and Vermont within the transitional zone between the deciduous forests to the south and coniferous forests to the north and is identifiable through the association of certain diagnostic tool types, including ground slate semi-lunar knives (or “ulus”), plummets for use in fishing, ground slate points and knives, and ground stone gouges, adzes and grooved axes. The tool assemblage has been used to suggest that there was less reliance on plant foods and a greater reliance on hunting and fishing in this region than for Archaic peoples in southern Ontario, where people made use of various nut-bearing trees. Stone tools designed specifically for the preparation of wild plant foods suggest that subsistence catchment was being widened and new resources being more intensively exploited.

The trend towards decreased territory size, increased population density, and a broadening subsistence base continued during the Late Archaic (2500 to 1100 BCE). Increased territoriality and more limited movement are also consistent with the development of distinct local styles of projectile points. The trade networks which began in the Middle Archaic expand during this period and begin to include marine shell artifacts from as far away as the Mid-Atlantic coast, polished stone pipes, and slate gorgets. One of the more unusual of the Late Archaic artifacts is the "birdstone”, small, bird-like effigies usually manufactured from green banded slate. In southern Ontario, the Late Archaic is subdivided into three traditions based on projectile point styles: Narrow points, broad points, and small points. The small point tradition (e.g., Crawford Knoll, Innes) is thought to represent the spread of bow and arrow technology. The Terminal Archaic period (1100 to 950 BCE) is marked by the appearance of the first true cemeteries. Prior to this period, individuals were interred close to the location where they died. However, burial patterns changed wherein individuals who died at a distance from the cemetery would be returned for final burial at the group cemetery, often resulting in disarticulated skeletons occasionally missing minor bone elements (i.e., finger bones). The emergence of local group cemeteries has been interpreted as being a response to both increased

population densities and competition between local groups for access to resources; cemeteries would have provided symbolic claims over a local territory and its resources.

The Early Woodland period (950 to 400 BCE) is distinguished from the Late Archaic period primarily by the addition of ceramic technology. While the introduction of pottery provides a useful demarcation point for archaeologists, it may have made less difference in the lives of the Early Woodland peoples. Lifeways show a great deal of continuity with the preceding Late Archaic period. For instance, birdstones continue to be manufactured, although the Early Woodland varieties have "pop-eyes" which protrude from the sides of their heads. Likewise, well-made projectile points which were produced during the terminal part of the Archaic period continue in use. The Meadowood complex, marked by thin, well-made, side-notched points appears primarily in southern Ontario, although there are some sites with Meadowood artifacts in eastern Ontario. The trade networks which were established in the Middle and Late Archaic also continued to function, although there does not appear to have been as much traffic in marine shell during the Early Woodland period. These trade items were included in increasingly sophisticated burial ceremonies, some of which involved construction of burial mounds, particularly in the north shore region of Lake Ontario.

In terms of settlement and subsistence patterns, the Middle Woodland (400 BCE –500 CE) provides a major point of departure from previous periods with a great degree of sedentism. Fish were becoming an even more important part of the diet, and rich, densely occupied sites appear along the margins of major rivers and lakes. Unlike earlier seasonally utilized locations, these sites appear to have functioned as base camps, occupied off and on throughout the course of the year. There are also numerous small upland sites, many of which can be interpreted as special purpose camps from which localized resource patches were exploited. Middle Woodland vessels are often decorated with tool impressed designs covering the entire exterior surface and upper portion of the vessel interior. In eastern Ontario, the Point Peninsula ceramic style features stamped zigzag pattern applied at various angles to the exterior of the vessel, known as “pseudo scallop shell”. Another common decorative style is the dentate stamp, a comb-like tool creating square impressions.

The relatively brief period of the Transitional Woodland period (550 – 900 CE) is marked by the acquisition of cultivar plants species, such as maize and squash, from communities living south of the Great Lakes. With the transition to food production, sites were occupied for longer periods and by larger populations. In southern Ontario, the Transitional Woodland period is represented by the Princess Point complex and cord marked pottery. There are few Transitional Woodland sites in eastern Ontario. However, these changes are not as evident in the parts of the province where horticulture is not viable, such as the study area. In these areas, especially along the margin of the northern of horticulture, the advent of horticulture is represented for the most part through the acquisition of these resources through trade with horticulturalists to the south.

In the Late Woodland there are several instances of Late Woodland pottery types typically associated with Iroquoian groups on what would otherwise be considered Algonquian archaeological sites in the territory east of Georgian Bay, across the area of Algonquin Park and the Halliburton Highlands over to, and including, the Ottawa River valley (cf. Ballantine 1996,1997; Mitchell 1975, 1990, 1996; Saint-Germain 1999; von Gernet 1992, 1993). There has been some debate about what the presence of these purportedly Iroquoian ceramic artifacts in an Algonquin context might indicate. Interpretations include incursion of Iroquoian peoples into Algonquin territory; ceramics as trade items between Iroquoian and Algonquins; the presence of Iroquoian women in Algonquin societies, either as wives or

captives, who continued to manufacture ceramics according to their ethnic traditions; or Algonquin manufacture of ceramics that simulate Iroquoian ceramic types (Pendergast 1999). Each of these possible interpretations suggests a close interaction sphere between Algonquin and Iroquoian peoples, which is further supported by evidence of Iroquoian and Algonquin trade relationships in the early contact period. It has also been suggested that Algonquin and Iroquoian peoples may have "shared in a common Late Woodland cultural stratum" which included common elements such as ceramics (von Gernet 1992). Taking the point further, Fox and Garrad (2004) suggest that Huron and Algonquin shared not only a territory in the southern Georgian Bay area (traditional "Huronia"), but also shared a material culture, and may have cohabited in settlements to a greater degree than as simply visitors. Ballantine (1997) has suggested that Algonquian sites, or sites shared by Iroquoians and Algonquians, exhibit a wider variety of lithic raw materials, and a greater reliance on quartz, based on his work in the Haliburton area.

1.3.3 REGISTERED ARCHAEOLOGICAL SITES AND SURVEYS

In Canada, archaeological sites are registered within the Borden system, a national grid system designed by Charles Borden in 1952 (Borden 1952). The grid covers the entire surface area of Canada and is divided into major units containing an area that is two degrees in latitude by four degrees in longitude. Major units are designated by upper case letters. Each major unit is subdivided into 288 basic unit areas, each containing an area of 10 minutes in latitude by 10 minutes in longitude. The width of basic units reduces as one moves north due to the curvature of the earth. In southern Ontario, each basic unit measures approximately 13.5 kilometres east-west by 18.5 kilometres north-south. In northern Ontario, adjacent to Hudson Bay, each basic unit measures approximately 10.2 kilometres east-west by 18.5 kilometres north-south. Basic units are designated by lower case letters. Individual sites are assigned a unique, sequential number as they are registered. These sequential numbers are issued by the MTCS who maintain the *Ontario Archaeological Sites Database*. The study area under review is located within Borden Block BiGs.

Information concerning specific site locations is protected by provincial policy and is not fully subject to the *Freedom of Information and Protection of Privacy Act* (Government of Ontario 1990a). The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The MTCS will provide information concerning site location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

An examination of the *Ontario Archaeological Sites Database* has shown that there are no archaeological sites registered within a one kilometre radius of the study area (Government of Ontario 2022a).

In addition, an examination of the *Ontario Public Register of Archaeological Reports* (Government of Ontario 2022b) has identified no archaeological assessments that document work within 50 metres of the study area.

1.3.4 MASTER PLAN OF ARCHAEOLOGICAL RESOURCES, DISTRICT MUNICIPALITY OF MUSKOKA

The District Municipality of Muskoka, entitled *Final Phase 1 Report of the Master Plan of Archaeological Resources of the District Municipality of Muskoka* (ASI 1993) was also consulted. The Master Plan indicates that the study are falls within the boundary of Cultural Landscape and Historic Thematic Zone A, which identifies that the majority of cultural material types identified in the Master Plan can be found in this zone.

1.2 Existing Conditions

The study area for the Project comprises approximately 9.0 hectares on part of Lots 31 to 33, Concession 2, Geographic Township of Chaffey, District Municipality of Muskoka, Town of Huntsville, Ontario (see Figure 1). The study area consists of lands within the existing road ROW.

2 Field Methods

The Stage 1 archaeological assessment complied information concerning registered and/or potential archaeological resources within the study area. A property inspection was conducted on May 24, 2022, by Dan Kearns (R499), under Project Information Form (PIF) number P422-0010-2022 issued to Darren Kipping, MA, by the MTCS. Prior to the start of the Stage 1 property visit, Enbridge Gas provided mapping which defined the limits of the study area. These files were then geo-referenced by Stantec's Geographic Information Services (GIS) team and a digital file (i.e., a shape file) was created of the Project's study area. The study area was uploaded to ESRI's Collector GIS data system, which has been customized by Stantec for archaeological recording, and used in the field for data collection. The development area is confined within the existing municipal road ROWs associated with the Project: Hidden Valley Road, Skyline Drive, Ski Club Road, Mount Pleasant Crescent, Slalom Drive, Woodland Court, Lakeview Crescent, Chalet Crescent, and Turner Drive.

The property inspection involved examining the entirety of the study area to identify the presence or absence of features of archaeological potential in accordance with Section 1.2 of the MTCS's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). During the property inspection on May 24, 2022, the weather was sunny, and visibility of land features was excellent. Field, lighting, and weather conditions were not detrimental to the identification of features of archaeological potential.

The property inspection confirmed that the study area comprises approximately 3.15 hectares (35.0%) of disturbed area constituting existing road surfaces, approximately 4.1 hectares (45.6%) of previous disturbance adjacent to the existing road (i.e., ditching) (Photos 1, 2, 5, 7, 8, 12, 14 to 29, 32, 33, 35, 37, and 38), and approximately 1.02 hectares (11.3%) of slope in excess of 20˚ (Photos 4, 6, 9, 10, 13, 18, 29, 30 to 32, and 34 to 36). The remaining portions of the study area, approximately 0.73 hectares (8.1%), retains archaeological potential (Photos 3, 11, 13, 17, 21 to 27, 30, 31, and 33). These areas feature grass and trees with a lack of features to confirm previous disturbance associated with the road construction. The photography from the property inspection is presented in Section 8.1 and confirm that the requirements for a Stage 1 property inspection were met, as per Section 1.2 and Section 7.7.2 Standard 1 of the MHTSCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Figure 4 illustrate photo locations and the archaeological potential of the study area.

3 Analysis and Conclusions

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. Stantec applied archaeological potential criteria commonly used by the MTCS (Government of Ontario 2011) to determine areas of archaeological potential within the region under study. These variables include proximity to registered archaeological sites; distance to various types of water sources; soil texture and drainage; glacial geomorphology; elevated topography; and the general topographic variability of the area. However, it is worth noting that extensive land disturbance can eradicate archaeological potential (Government of Ontario 2011).

Potable water is the single most important resource for any extended human occupation or settlement and since water sources in southern Ontario have remained relatively stable over time, current proximity to drinkable water is regarded as a useful index for the evaluation of archaeological site potential. In fact, distance to water is one of the most commonly used variables for predictive modeling of archaeological site location in Ontario. Distance to modern or ancient water sources is generally accepted as the most important determinant of past human settlement patterns and considered alone, may result in a determination of archaeological potential. However, any combination of two or more other criteria, such as well-drained soils or topographic variability, may also indicate archaeological potential.

As discussed above, distance to water is an essential factor in archaeological potential modeling. When evaluating distance to water it is important to distinguish between water and shoreline, as well as natural and artificial water sources, as these features affect site locations and types to varying degrees. The MTCS categorizes water sources in the following manner:

- Primary water sources: lakes, rivers, streams, or creeks.
- Secondary water sources: intermittent streams and creeks, springs, marshes and swamps.
- Past water sources: glacial lake shorelines, relic river or stream channels, cobble beaches, shorelines of drained lakes or marshes.
- Accessible or inaccessible shorelines: high bluffs, swamp or marshy lake edges, and sandbars stretching into marsh.

Based on mapping, the study area is located close to potential water sources, including Peninsula Lake and its associated tributaries. The proximity of these features meets the MTCS's defined characteristics for archaeological potential. Moreover, additional ancient and/or relic tributaries of the various primary and secondary water sources may have existed but are not identifiable today and are not indicated on historical mapping.

Further examination of the natural environment of the study area identified soil conditions suitable for Indigenous and Euro-Canadian agriculture.

Archaeological potential can be extended to areas of early Euro-Canadian settlement, including places of military or pioneer settlements, early transportation routes, and properties listed on the municipal register or designated under the *Ontario Heritage Act* (Government of Ontario 1990b) or property that local histories or informants have identified with possible historical events. The historical mapping reviewed during this assessment demonstrates that the study area and its environs were

occupied by Euro-Canadian farmers by the mid-19th century. Much of the established road and rail networks and agricultural settlement from that time is still visible today.

The Stage 1 archaeological assessment, aided by a property inspection, has determined that approximately 0.73 hectares (8.1%) of the study area retains archaeological potential and requires Stage 2 assessment. The remaining portion of the study area, approximately 8.27 hectares (91.9%), retains low to no archaeological potential as it has been subject to extensive disturbance and alteration throughout the 20th and 21st centuries or features a significant slope. This portion of the study area requires no further archaeological assessment. The results of the Stage 1 assessment are illustrated on Figure 4.

4 Recommendations

The Stage 1 archaeological assessment, involving background research and a property inspection, resulted in the determination that portions of the study area exhibit potential for the identification and recovery of archaeological resources. In accordance with Section 1.3.1 and Section 7.7.4 of the MTCS's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), **Stage 2 archaeological assessment is required for portions of the study area which have been identified as retaining archaeological potential (Figure 4).**

The objective of the Stage 2 archaeological assessment will be to document any archaeological resources within the portions of the study area still retaining archaeological potential and to determine whether these archaeological resources require further assessment. The Stage 2 archaeological assessment will be conducted through test pit survey as outlined in Section 2.1.2 of the MTCS's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The MTCS standards require that each test pit be at least 30 centimetres in diameter, excavated to at least five centimetres into subsoil, and have soil screened through six-millimetre hardware cloth to facilitate the recovery of any cultural material that may be present. Prior to backfilling, each test pit will be examined for stratigraphy, cultural features, or evidence of fill.

Should any additional areas of disturbance or features indicating that archaeological potential has been removed, including permanently wet areas, exposed bedrock, and steep slopes, not previously identified during the Stage 1 property inspection be encountered during the Stage 2 archaeological assessment, they will be documented as outlined in Section 2.1 of the MTCS's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

In addition to the above, the Stage 1 archaeological assessment determined that there are areas within the study area which retain low to no archaeological potential due to previous disturbance from road construction, ditching activities, and areas of steep slope. In accordance with Section 1.3.2 and Section 7.7.4 of the MTCS's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), **Stage 2 archaeological assessment is not required for the portions of the study area which retain low to no archaeological potential (Figure 4).**

The MTCS is asked to review the results presented and accept this report into the *Ontario Public Register of Archaeological Reports*.

5 Advice on Compliance with Legislation

In accordance with Section 7.5.9 of the MTCS's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011), the following standard statements are a required component of archaeological reporting and are provided verbatim from the MTCS's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011).

This report is submitted to the Minister of Heritage, Sport, Tourism and Culture Industries as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c. O.18 (Government of Ontario 1990b). The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the study area of a development proposal have been addressed to the satisfaction of the MTCS, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* (Government of Ontario 1990b) for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the *Ontario Public Register of Archaeological Reports* referred to in Section 65.1 of the *Ontario Heritage Act* (Government of Ontario 1990b)

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990b) The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990b)

The *Funeral, Burial and Cremation Services Act,* 2002, S.O. 2002, c. 33 (Government of Ontario 2002), requires that any person discovering or having knowledge of a burial site shall immediately notify the police or coroner. It is recommended that the Ministry of Public and Business Service Delivery is also immediately notified.

Archaeological sites recommended for further archaeological fieldwork remain subject to Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990b) and may not be altered, or have artifacts removed, except by a person holding an archaeological license.

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7 Images

7.1 Photographs

Photo 1: Previously disturbed right of way associated with road construction and ditching along shoulders, looking east along Hidden Valley Road

Photo 2: Previously disturbed right of way associated with road construction and ditching along shoulders, looking south along Skyline Drive

Photo 3: View of study area along Skyline Drive, area of archaeological potential along proposed pipeline, looking north

Photo 4: Steep embankment, slope in excess of 20˚, looking east along Hidden Valley Road

Photo 5: Previously disturbed right of way associated with road construction and ditching along shoulders, looking west

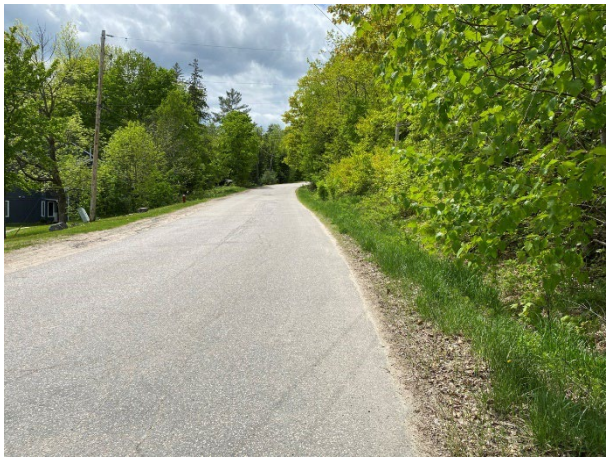


Photo 6: Steep embankment, slope in excess of 20˚, looking east along Hidden Valley Road

Photo 7: Previously disturbed right of way associated with road construction and ditching along shoulders, looking west

Photo 8: Previously disturbed right of way associated with road construction and ditching along shoulders, looking southwest

Photo 9: Steep embankment, slope in excess of 20˚, looking east along Skyline Drive

Photo 10: Steep embankment, slope in excess of 20˚, looking northwest along Skyline Drive

Photo 11: View of study area along Slalom Drive, area of archaeological potential along proposed pipeline, looking east

Photo 12: Previously disturbed right of way associated with road construction and ditching along shoulders, looking west

Photo 13: View of study area along Skyline Drive, looking west, with area of archaeological potential on left and steep bank on right

Photo 14: Previously disturbed right of way associated with road construction and ditching along shoulders, looking east

Photo 15: Previously disturbed right of way associated with road construction and ditching along shoulders, looking southeast

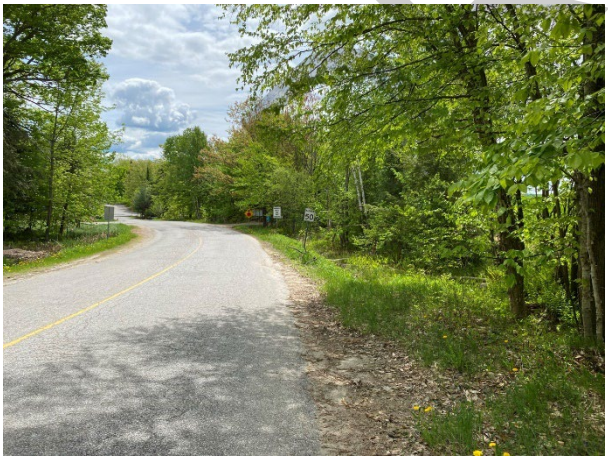


Photo 16: Previously disturbed right of way associated with road construction and ditching along shoulders, looking northwest

Photo 17: View of study area along Woodland Drive, looking northwest, with area of archaeological potential on the left and disturbance from ditching on the right

Photo 18: View of study area along Woodland Drive, looking east, with area of disturbance from ditching on the left and slope in excess of 20˚ on right

Photo 19: Previously disturbed right of way associated with road construction and ditching along shoulders, looking east

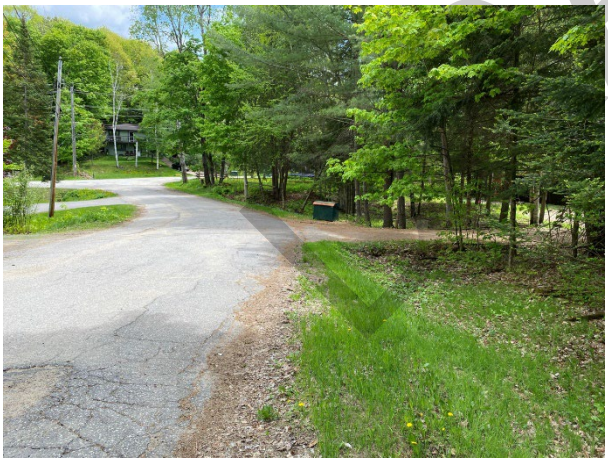


Photo 20: Previously disturbed right of way associated with road construction and ditching along shoulders, looking south

Photo 21: View of study area along Woodland Drive, looking north, with area of archaeological potential on left and previous disturbance from ditching on right

Photo 22: View of study area along Chalet Crescent, looking south, with area of archaeological potential on left and previous disturbance from ditching on right

Photo 23: View of study area along Chalet Crescent, looking north, with area of archaeological potential on right and previous disturbance from ditching on left

Photo 24: View of study area along Chalet Crescent, looking west, with area of archaeological potential on right and previous disturbance from driveway and road construction on left

Photo 25: View of study area along Chalet Crescent, looking southeast, with area of archaeological potential on left and previous disturbance on right

Photo 26: View of study area along Lakeview Crescent, looking north, with area of archaeological potential on left and previous disturbance on right

Photo 27: View of study area along Lakeview Crescent, looking east, with area of archaeological potential on left and previous disturbance on right

Photo 28: Previously disturbed right of way associated with road construction and ditching along shoulders, looking south

Photo 29: View of study area along Valley Road, looking south, with area of disturbance on the right and slope in excess of 20˚ on left

Photo 30: View of study area along Valley Road, looking northeast, with area of archaeological potential on the left and slope in excess of 20˚ on right

Photo 31: View of study area along Valley Road, looking west, with area of archaeological potential on the left and slope in excess of 20˚ on right

Photo 32: View of study area along Valley Road, looking east, with area of disturbance on the right and slope in excess of 20˚ on left

Photo 33: View of study area along Ski Club Road, looking north, with area of archaeological potential on left and previous disturbance on right

Photo 34: View of study area along Turner Drive, looking northwest, with area of slope in excess of 20˚ on left and right

Photo 35: View of study area along Turner Drive, looking west, with area of slope in excess of 20˚ on right and previous disturbance on left

Photo 36: Steep embankment, slope in excess of 20˚, looking northwest along Turner Drive

Photo 37: Previously disturbed right of way associated with road construction, looking east along Turner Drive

Photo 38: Previously disturbed right of way associated with road construction and ditching along shoulders, looking north along Turner Drive

8 Maps

General maps of the study area will follow on succeeding pages.

Stantec

Legend
- Study Area
- Highway
- Major Road
- Minor Road
- Watercourse
- Municipal Boundary, Lower
- Provincial Park
- Waterbody
- Wooded Area

0 0.5 1 km
1:25,000 (At original document size of 11x17)

Notes
1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2022.

Project Location
Disstrict Municipality of Muskoka

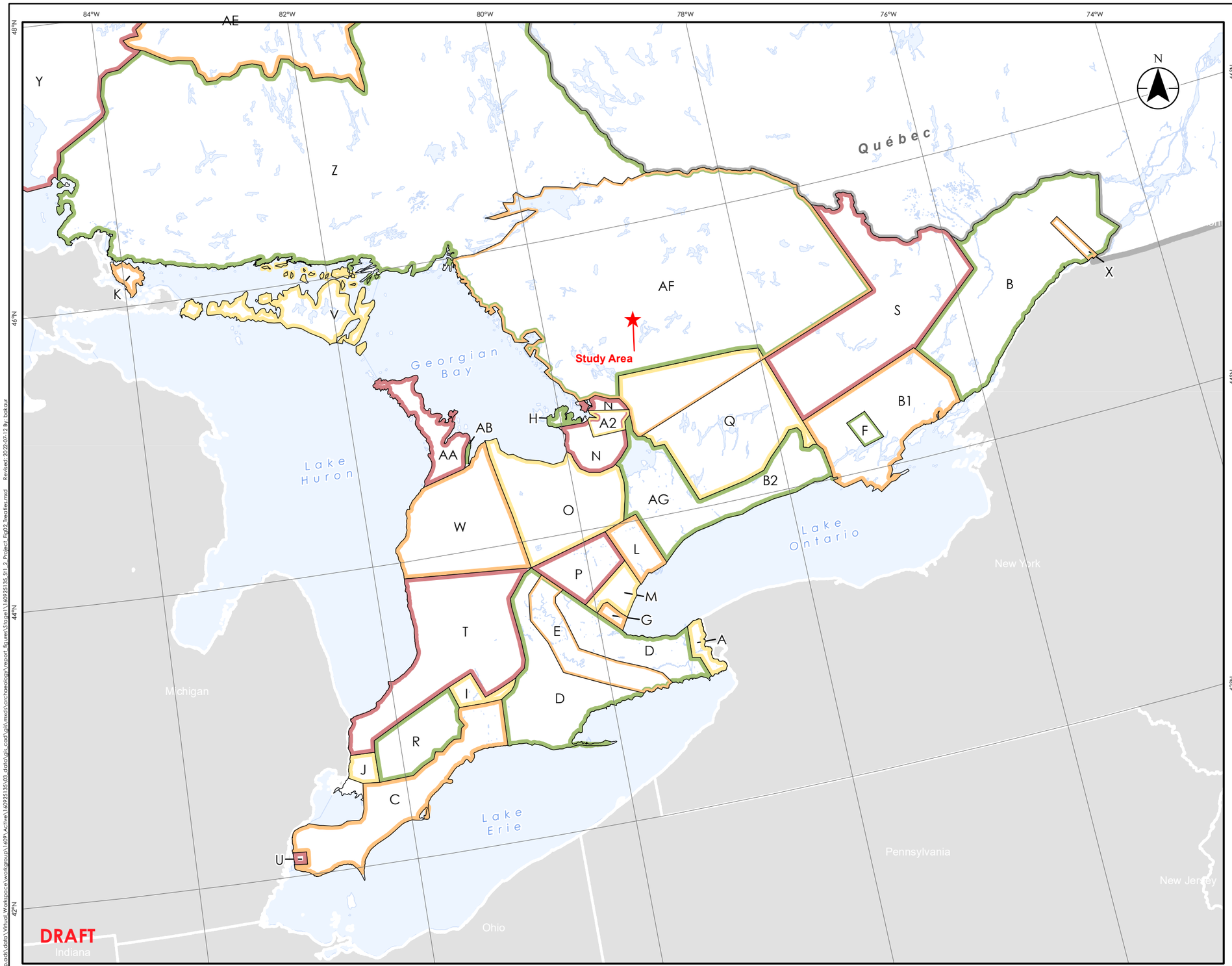
1609251355 REVA
Prepared by KB on 2022-07-12
Technical Review by SE on 2022-07-04

Client/Project
ENBRIDGE GAS INC.
STAGE 1 ARCHAEOLOGICAL ASSESSMENT: HIDDEN VALLEY COMMUNITY EXPANSION PROJECT

Figure No.
1

DRAFT

Title
Location of Study Area



Stantec

Legend

- Study Area
- Waterbody

A	Treaty No. 381, May 9th, 1781 (Mississauga and Chippewa)
AA	Treaty No. 72, October 30th, 1854 (Chippewa)
AB	Treaty No. 82, February 9th, 1857 (Chippewa)
AE	Treaty No. 9, James Bay 1905, 1906 (Ojibway and Cree)
AF	Williams Treaty, October 31st and November 15th, 1923 (Chippewa and Mississauga)
AG	Williams Treaty, October 31st, 1923 (Chippewa)
A2	John Collins' Purchase, 1785 (Chippewa)
B	Crawford's Purchase, October 9th, 1783 (Algonquin and Iroquois)
B1	Crawford's Purchase, October 9th, 1783 (Mississauga)
B2	Crawford's Purchase, 1783, 1787, 1788 (Mississauga)
C	Treaty No. 2, May 19th, 1790 (Odawa, Chippewa, Pottawatomi, and Huron)
D	Treaty No. 3, December 2nd, 1792 (Mississauga)
E	Haldimand Tract: from the Crown to the Mohawk, 1793
F	Tyendinaga: from the Crown to the Mohawk, 1793
G	Treaty No. 3 3/4: from the Crown to Joseph Brant, October 24th, 1795
H	Treaty No. 5, May 22nd, 1798 (Chippewa)
I	Treaty No. 6, September 7th, 1796 (Chippewa)
J	Treaty No. 7, September 7th, 1796 (Chippewa)
K	Treaty No. 13, June 30th, 1798 (Chippewa)
L	Treaty No. 13, August 1st, 1805 (Mississauga)
M	Treaty No. 13A, August 2nd, 1805
N	Treaty No. 16, November 18th, 1815 (Chippewa)
O	Treaty No. 18, October 17th, 1818 (Chippewa)
P	Treaty No. 19, October 28th 1818 (Chippewa)
Q	Treaty No. 20, November 5th, 1818 (Chippewa)
R	Treaty No. 21, March 9th, 1819 (Chippewa)
S	Treaty No. 27, May 31st, 1819 (Mississauga)
T	Treaty No. 27½, April 25th, 1825 (Ojibwa and
U	Treaty No. 35, August 13th, 1833 (Wyandot or
V	Treaty No. 45, August 9th, 1836 (Chippewa and Odawa, "For All Indians To Reside Thereon")
W	Treaty No. 45½, August 9th, 1836 (Saugeen)
X	Treaty No. 57, June 1st, 1847 (Iroquois of St. Regis)
Y	Treaty No. 60, Robinson, Superior, September 7th, 1850 (Ojibwa)
Z	Treaty No. 61, Robinson, Huron, September 9th, 1850 (Ojibwa)

0 50 100 Km

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Notes

1. Coordinate System: NAD 1983 Statistics Canada Lambert
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2022.
3. Treaty boundaries adapted from Morris 1943 (1964 reprint). For cartographic representation only.

Project Location
District Municipality of Muskoka

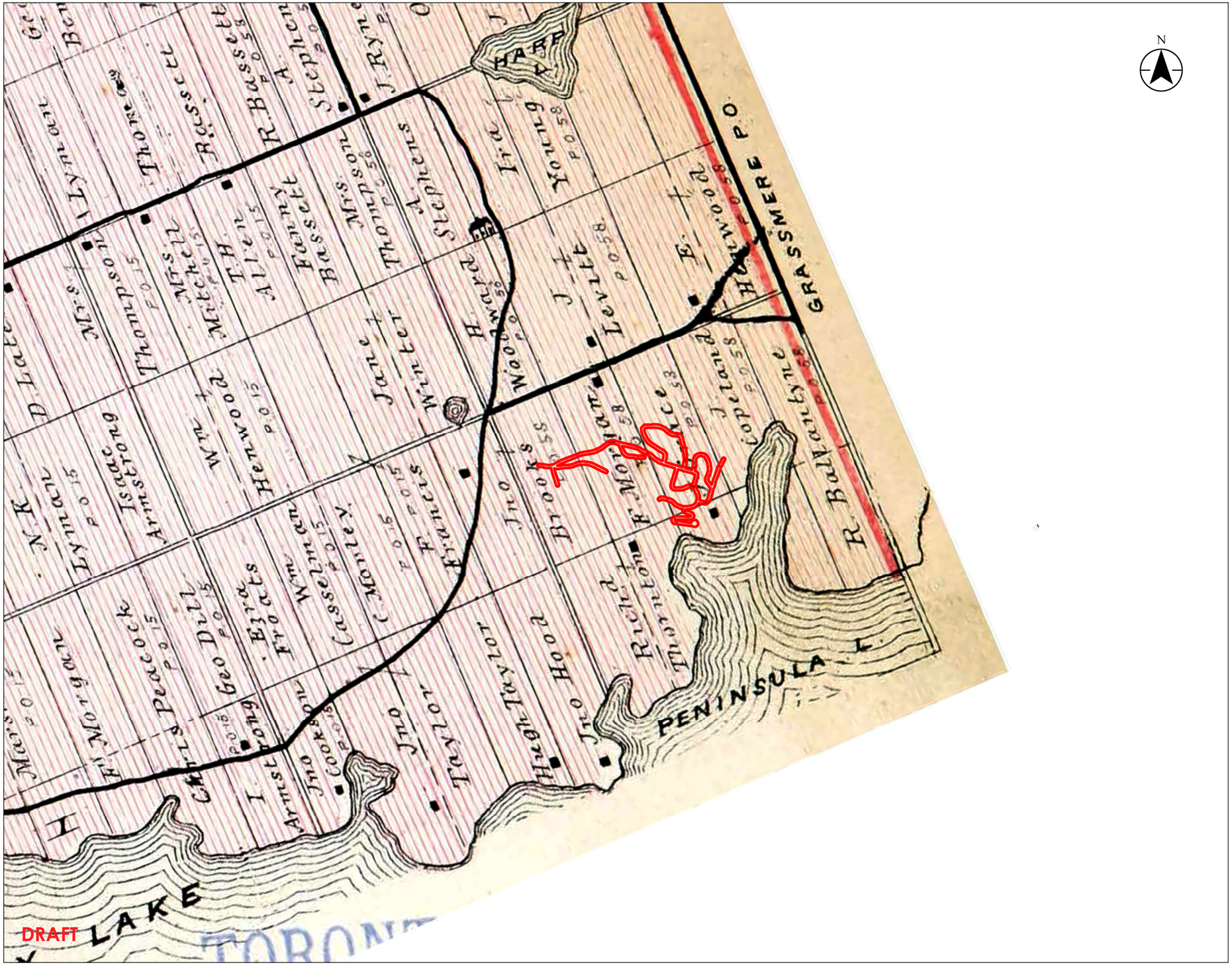
160925135 REVA
Prepared by KB on 2022-07-12
Technical Review by SE on 2022-07-04

Client/Project
ENBRIDGE GAS INC.
STAGE 1 ARCHAEOLOGICAL ASSESSMENT: HIDDEN VALLEY COMMUNITY EXPANSION PROJECT

Figure No.
2

DRAFT

Title
Treaties and Purchases (Adapted from Morris 1943)



Legend

🟥 Study Area (Approximate)

Figure Not to Scale

Notes

1. Walling, H. F. 1862. *Map of the Counties of Stormont, Dundas, Glengary, Prescott & Russell, Canada West.* D.P. Putnam

Project Location
District Municipality of Muskoka

160925135 REVA
Prepared by KB on 2022-07-26
Technical Review by SE on 2022-07-05

Client/Project
ENBRIDGE GAS INC.
STAGE 1 ARCHAEOLOGICAL ASSESSMENT: HIDDEN VALLEY COMMUNITY EXPANSION PROJECT

Figure No.
3

Title
Portion of the 1879 Map of the District of Muskoka

Stantec

Legend

- Archaeology Photo Log
- Study Area
- Watercourse
- Waterbody

Assessment Method

- Area of Steep Slope, Low to No Archaeological Potential - No Further Archaeological Work Required
- Area of Archaeological Potential - Further Archaeological Work Required (Stage 2)
- Previously Disturbed, Low to No Archaeological Potential - No Further Archaeological Work Required
- Unassessed Area Due to Access

0 75 150 Metres
1:5,000 (At original document size of 11x17)

Notes

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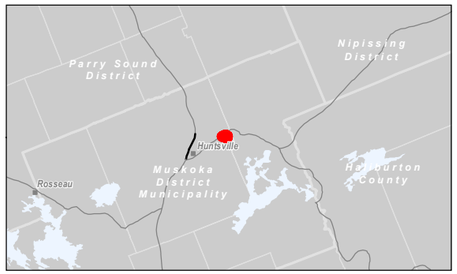


Project Location
District Municipality of Muskoka

160925135 REVA
Prepared by KB on 2022-07-28
Technical Review by SE on 2022-07-05

Client/Project
ENBRIDGE GAS INC.
STAGE 1 ARCHAEOLOGICAL ASSESSMENT: HIDDEN VALLEY COMMUNITY EXPANSION PROJECT

Figure No.
4

DRAFT

Title
Stage 1 Survey Methods and Results

Appendix F:
Cultural Heritage Checklist

Ontario

Ministry of Tourism, Culture and Sport

Programs & Services Branch
401 Bay Street, Suite 1700
Toronto ON M7A 0A7

Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes

A Checklist for the Non-Specialist

The **purpose of the checklist** is to determine:

- if a property(ies) or project area:
    - is a recognized heritage property
    - may be of cultural heritage value
- it includes all areas that may be impacted by project activities, including – but not limited to:
    - the main project area
    - temporary storage
    - staging and working areas
    - temporary roads and detours

Processes covered under this checklist, such as:

- *Planning Act*
- *Environmental Assessment Act*
- *Aggregates Resources Act*
- *Ontario Heritage Act* – Standards and Guidelines for Conservation of Provincial Heritage Properties

Cultural Heritage Evaluation Report (CHER)

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a qualified person(s) (see page 5 for definitions) to undertake a cultural heritage evaluation report (CHER).

The CHER will help you:

- identify, evaluate and protect cultural heritage resources on your property or project area
- reduce potential delays and risks to a project

Other checklists

Please use a separate checklist for your project, if:

- you are seeking a Renewable Energy Approval under Ontario Regulation 359/09 – separate checklist
- your Parent Class EA document has an approved screening criteria (as referenced in Question 1)

Please refer to the Instructions pages for more detailed information and when completing this form.

Project or Property Name

ENBRIDGE HIDDEN VALLEY COMMUNITY EXPANSION PROJECT

Project or Property Location (upper and lower or single tier municipality)

Town of Hunstville, District Municipality of Muskoka

Proponent Name

Enbridge

Proponent Contact Information

[redacted]

	Yes	No
1. Is there a pre-approved screening checklist, methodology or process in place?	☐	☑

[redacted]

	Yes	No
2. Has the property (or project area) been evaluated before and found **not** to be of cultural heritage value?	☐	☑

	Yes	No
3. Is the property (or project area):		
a. identified, designated or otherwise protected under the *Ontario Heritage Act* as being of cultural heritage value?	☐	☑
b. a National Historic Site (or part of)?	☐	☑
c. designated under the *Heritage Railway Stations Protection Act*?	☐	☑
d. designated under the *Heritage Lighthouse Protection Act*?	☐	☑
e. identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)?	☐	☑
f. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?	☐	☑

Part B: Screening for Potential Cultural Heritage Value

	Yes	No
4. Does the property (or project area) contain a parcel of land that:		
a. is the subject of a municipal, provincial or federal commemorative or interpretive plaque?	☐	☑
b. has or is adjacent to a known burial site and/or cemetery?	☐	☑
c. is in a Canadian Heritage River watershed?	☐	☑
d. contains buildings or structures that are 40 or more years old?	☑	☐

	Yes	No
5. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area):		
a. is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area?	☐	☑
b. has a special association with a community, person or historical event?	☐	☑
c. contains or is part of a cultural heritage landscape?	☐	☑

Instructions

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
  - large scale and small scale showing nearby township names for context purposes
- the municipal addresses of all properties within the project area
- the lot(s), concession(s), and parcel number(s) of all properties within a project area

For more information, see the Ministry of Tourism, Culture and Sport's Ontario Heritage Toolkit or Standards and Guidelines for Conservation of Provincial Heritage Properties.

In this context, the following definitions apply:

- **qualified person(s)** means individuals – professional engineers, architects, archaeologists, etc. – having relevant, recent experience in the conservation of cultural heritage resources.
- **proponent** means a person, agency, group or organization that carries out or proposes to carry out an undertaking or is the owner or person having charge, management or control of an undertaking.

An existing checklist, methodology or process may already be in place for identifying potential cultural heritage resources, including:

- one endorsed by a municipality
- an environmental assessment process e.g. screening checklist for municipal bridges
- one that is approved by the Ministry of Tourism, Culture and Sport (MTCS) under the Ontario government's Standards & Guidelines for Conservation of Provincial Heritage Properties [s.B.2.]

Respond 'yes' to this question, if all of the following are true:

A property can be considered not to be of cultural heritage value if:

- a Cultural Heritage Evaluation Report (CHER) - or equivalent - has been prepared for the property with the advice of a qualified person and it has been determined not to be of cultural heritage value and/or
- the municipal heritage committee has evaluated the property for its cultural heritage value or interest and determined that the property is not of cultural heritage value or interest

A property may need to be re-evaluated, if:

- there is evidence that its heritage attributes may have changed
- new information is available
- the existing Statement of Cultural Heritage Value does not provide the information necessary to manage the property
- the evaluation took place after 2005 and did not use the criteria in Regulations 9/06 and 10/06

Note: Ontario government ministries and public bodies [prescribed under Regulation 157/10] may continue to use their existing evaluation processes, until the evaluation process required under section B.2 of the Standards & Guidelines for Conservation of Provincial Heritage Properties has been developed and approved by MTCS.

To determine if your property or project area has been evaluated, contact:

- the approval authority
- the proponent
- the Ministry of Tourism, Culture and Sport

i. designated under the *Ontario Heritage Act*

- individual designation (Part IV)
- part of a heritage conservation district (Part V)

Individual Designation – Part IV

A property that is designated:

- by a municipal by-law as being of cultural heritage value or interest [s.29 of the *Ontario Heritage Act*]
- by order of the Minister of Tourism, Culture and Sport as being of cultural heritage value or interest of provincial significance [s.34.5]. **Note**: To date, no properties have been designated by the Minister.

Heritage Conservation District – Part V

A property or project area that is located within an area designated by a municipal by-law as a heritage conservation district [s. 41 of the *Ontario Heritage Act*].

For more information on Parts IV and V, contact:

- municipal clerk
- Ontario Heritage Trust
- local land registry office (for a title search)

---

ii. subject of an agreement, covenant or easement entered into under Parts II or IV of the *Ontario Heritage Act*

An agreement, covenant or easement is usually between the owner of a property and a conservation body or level of government. It is usually registered on title.

The primary purpose of the agreement is to:

- preserve, conserve, and maintain a cultural heritage resource
- prevent its destruction, demolition or loss

For more information, contact:

- Ontario Heritage Trust - for an agreement, covenant or easement [clause 10 (1) (c) of the *Ontario Heritage Act*]
- municipal clerk – for a property that is the subject of an easement or a covenant [s.37 of the *Ontario Heritage Act*]
- local land registry office (for a title search)

---

iii. listed on a register of heritage properties maintained by the municipality

Municipal registers are the official lists - or record - of cultural heritage properties identified as being important to the community.

Registers include:

- all properties that are designated under the *Ontario Heritage Act* (Part IV or V)
- properties that have not been formally designated, but have been identified as having cultural heritage value or interest to the community

For more information, contact:

- municipal clerk
- municipal heritage planning staff
- municipal heritage committee

---

iv. subject to a notice of:

- intention to designate (under Part IV of the *Ontario Heritage Act*)
- a Heritage Conservation District study area bylaw (under Part V of the *Ontario Heritage Act*)

A property that is subject to a **notice of intention to designate** as a property of cultural heritage value or interest and the notice is in accordance with:

- section 29 of the *Ontario Heritage Act*
- section 34.6 of the *Ontario Heritage Act.* **Note**: To date, the only applicable property is Meldrum Bay Inn, Manitoulin Island. [s.34.6]

An area designated by a municipal by-law made under section 40.1 of the *Ontario Heritage Act* as a **heritage conservation district study area**.

For more information, contact:

- municipal clerk – for a property that is the subject of notice of intention [s. 29 and s. 40.1]
- Ontario Heritage Trust

---

v. included in the Ministry of Tourism, Culture and Sport's list of provincial heritage properties

Provincial heritage properties are properties the Government of Ontario owns or controls that have cultural heritage value or interest.

The Ministry of Tourism, Culture and Sport (MTCS) maintains a list of all provincial heritage properties based on information provided by ministries and prescribed public bodies. As they are identified, MTCS adds properties to the list of provincial heritage properties.

For more information, contact the MTCS Registrar at registrar@ontario.ca.

National Historic Sites are properties or districts of national historic significance that are designated by the Federal Minister of the Environment, under the *Canada National Parks Act*, based on the advice of the Historic Sites and Monuments Board of Canada.

For more information, see the National Historic Sites website.

The *Heritage Railway Stations Protection Act* protects heritage railway stations that are owned by a railway company under federal jurisdiction. Designated railway stations that pass from federal ownership may continue to have cultural heritage value.

For more information, see the Directory of Designated Heritage Railway Stations.

The *Heritage Lighthouse Protection Act* helps preserve historically significant Canadian lighthouses. The Act sets up a public nomination process and includes heritage building conservation standards for lighthouses which are officially designated.

For more information, see the Heritage Lighthouses of Canada website.

The role of the Federal Heritage Buildings Review Office (FHBRO) is to help the federal government protect the heritage buildings it owns. The policy applies to all federal government departments that administer real property, but not to federal Crown Corporations.

For more information, contact the Federal Heritage Buildings Review Office.

See a directory of all federal heritage designations.

A UNESCO World Heritage Site is a place listed by UNESCO as having outstanding universal value to humanity under the Convention Concerning the Protection of the World Cultural and Natural Heritage. In order to retain the status of a World Heritage Site, each site must maintain its character defining features.

Currently, the Rideau Canal is the only World Heritage Site in Ontario.

For more information, see Parks Canada – World Heritage Site website.

Heritage resources are often recognized with formal plaques or markers.

Plaques are prepared by:

- municipalities
- provincial ministries or agencies
- federal ministries or agencies
- local non-government or non-profit organizations

For more information, contact:

- municipal heritage committees or local heritage organizations – for information on the location of plaques in their community
- Ontario Historical Society's Heritage directory – for a list of historical societies and heritage organizations
- Ontario Heritage Trust – for a list of plaques commemorating Ontario's history
- Historic Sites and Monuments Board of Canada – for a list of plaques commemorating Canada's history

For more information on known cemeteries and/or burial sites, see:

- Cemeteries Regulations, Ontario Ministry of Consumer Services – for a database of registered cemeteries
- Ontario Genealogical Society (OGS) – to locate records of Ontario cemeteries, both currently and no longer in existence; cairns, family plots and burial registers
- Canadian County Atlas Digital Project – to locate early cemeteries

In this context, adjacent means contiguous or as otherwise defined in a municipal official plan.

The Canadian Heritage River System is a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage.

Canadian Heritage Rivers must have, and maintain, outstanding natural, cultural and/or recreational values, and a high level of public support.

For more information, contact the Canadian Heritage River System.

If you have questions regarding the boundaries of a watershed, please contact:

- your conservation authority
- municipal staff

A 40 year 'rule of thumb' is typically used to indicate the potential of a site to be of cultural heritage value. The approximate age of buildings and/or structures may be estimated based on:

- history of the development of the area
- fire insurance maps
- architectural style
- building methods

Property owners may have information on the age of any buildings or structures on their property. The municipality, local land registry office or library may also have background information on the property.

Note: 40+ year old buildings or structure do not necessarily hold cultural heritage value or interest; their age simply indicates a higher potential.

A building or structure can include:

- residential structure
- farm building or outbuilding
- industrial, commercial, or institutional building
- remnant or ruin
- engineering work such as a bridge, canal, dams, etc.

For more information on researching the age of buildings or properties, see the Ontario Heritage Tool Kit Guide Heritage Property Evaluation.

Part C: Other Considerations

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has potential landmarks or defining structures and sites, for instance:

- buildings or landscape features accessible to the public or readily noticeable and widely known
- complexes of buildings
- monuments
- ruins

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has a special association with a community, person or event of historic interest, for instance:

- Aboriginal sacred site
- traditional-use area
- battlefield
- birthplace of an individual of importance to the community

Landscapes (which may include a combination of archaeological resources, built heritage resources and landscape elements) may be of cultural heritage value or interest to a community.

For example, an Aboriginal trail, historic road or rail corridor may have been established as a key transportation or trade route and may have been important to the early settlement of an area. Parks, designed gardens or unique landforms such as waterfalls, rock faces, caverns, or mounds are areas that may have connections to a particular event, group or belief.

For more information on Questions 5.a., 5.b. and 5.c., contact:

- Elders in Aboriginal Communities or community researchers who may have information on potential cultural heritage resources. Please note that Aboriginal traditional knowledge may be considered sensitive.
- municipal heritage committees or local heritage organizations
- Ontario Historical Society's "Heritage Directory" - for a list of historical societies and heritage organizations in the province

An internet search may find helpful resources, including:

- historical maps
- historical walking tours
- municipal heritage management plans
- cultural heritage landscape studies
- municipal cultural plans

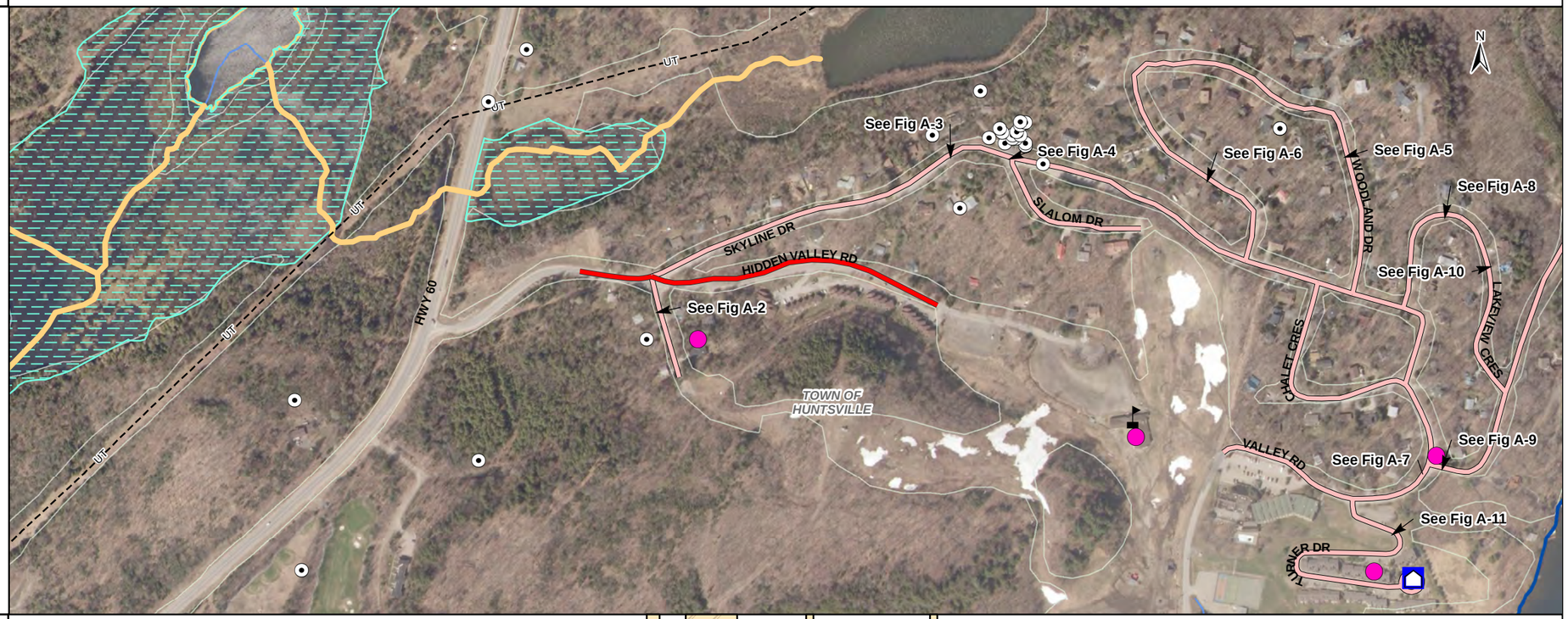
Information specific to trails may be obtained through Ontario Trails.

Appendix G:
Environmental Alignment Sheets

Resources	
CONSERVATION AUTHORITY REGULATED AREA / ANSI	
WETLAND WATERCOURSE ANSI	
VEGETATION	Wooded Area
WATER WELL WITHIN 50 m	Well Present
LINEAR FEATURES	Driveways & Roads; Driveways & Roads; Driveways & Roads; Driveways & Roads
ENVIRONMENTALLY SENSITIVE AREA	
SPECIES AT RISK (SAR) HABITAT	

Construction Mitigation Notes:
Note 1: No clearing activities during the migratory breeding bird restricted activity period (April 1 – August 31) without preconstruction nesting surveys. Refer to Section 4.4.4 of the ER and Section 8.2 of the ECMM 2021.
Note 2: Tree removal to avoid the active season for bats (m id-April to m id-September). Refer to Section 4.4.4 of the ER and Section 8.2 of the ECMM 2021.
Note 3: Groundwater wells present – Refer to Section 4.3.3 of the ER and Section 8.6.2 of the ECMM 2021.
Note 4: Water well monitoring program recommended. Refer to Section 7.1.2 of the ER.
Note 5: Maintain emergency egress. Refer to Section 3.5.3 of the ER and Section 18.0 of the ECMM 2021.
Note 6: Prior to working in this area SAR surveys, Butternut Health Assessments, tree inventories, breeding bird surveys, and bat exit surveys should be completed.

Acronyms List:
ER: Environmental Report (Stantec 2021)
ECMM: Enbridge Construction and Maintenance Manual, October 27, 2021 (ECMM 2021)
KCA: Kawartha Conservation Authority
ORCA: Otonabee Regional Conservation Authority
MNRF: Ministry of Northern Development, Mines, Natural Resources and Forestry



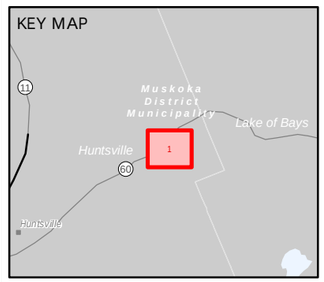
Construction Mitigation	
CONSTRUCTION REQUIREMENTS	Note 5; Note 5; Note 5; Note 5
FISHERIES TIMING RESTRICTIONS (CONSTRUCT BETWEEN)	
PIPELINE CROSSING METHODS	
VEGETATION RESTRICTIONS	Notes 1, 2 & 6
PERMITTING REQUIREMENTS	
MONITORING	Note 3 & 4
SPECIES AT RISK (SAR) HABITAT	
POTENTIALLY CONTAMINATED SITES	
SEED MIX	

Stantec
ENBRIDGE

Legend
- Preferred Route (Segment Evaluated)
- Preferred Route (Segment not Evaluated on this page)

Base / Environmental Features
- Water Well (MOECC)
- Warm Water, Thermal Regime
- UT Utility Transmission Corridor
- Watercourse
- Waterbody
- Unevaluated Wetland (per OWES)
- Wooded Area

Socio-Economic Features
- Recreation
- Residential Community
- School



Notes
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4. MOECC Water well locations are approximate and have been positioned based on published UTM coordinates © Queen's Printer for Ontario, 2022.

0 150 300 m

1:6,000 (At Original document size of 11x17)

Project Location
District Municipality of Muskoka

160925135
Prepared by KB on 2022-07-26
Technical Review by SE on 2022-07-14

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
A-1

Title
Environmental Alignment Sheets - Map 1

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Revised: 2022-07-26 By: bakaur

Resources

CONSERVATION AUTHORITY REGULATED AREA / ANSI	
WETLAND WATERCOURSE ANSI	
VEGETATION	Wooded Area
WATER WELL WITHIN 50 m	Well Present
LINEAR FEATURES	Driveways & Roads; Driveways & Roads
ENVIRONMENTALLY SENSITIVE AREA	
SPECIES AT RISK (SAR) HABITAT	

Construction Mitigation Notes:
Note 1: No clearing activities during the migratory breeding bird restricted activity period (April 1 – August 31) without preconstruction nesting surveys. Refer to Section 4.4.4 of the ER and Section 8.2 of the ECMM 2021.
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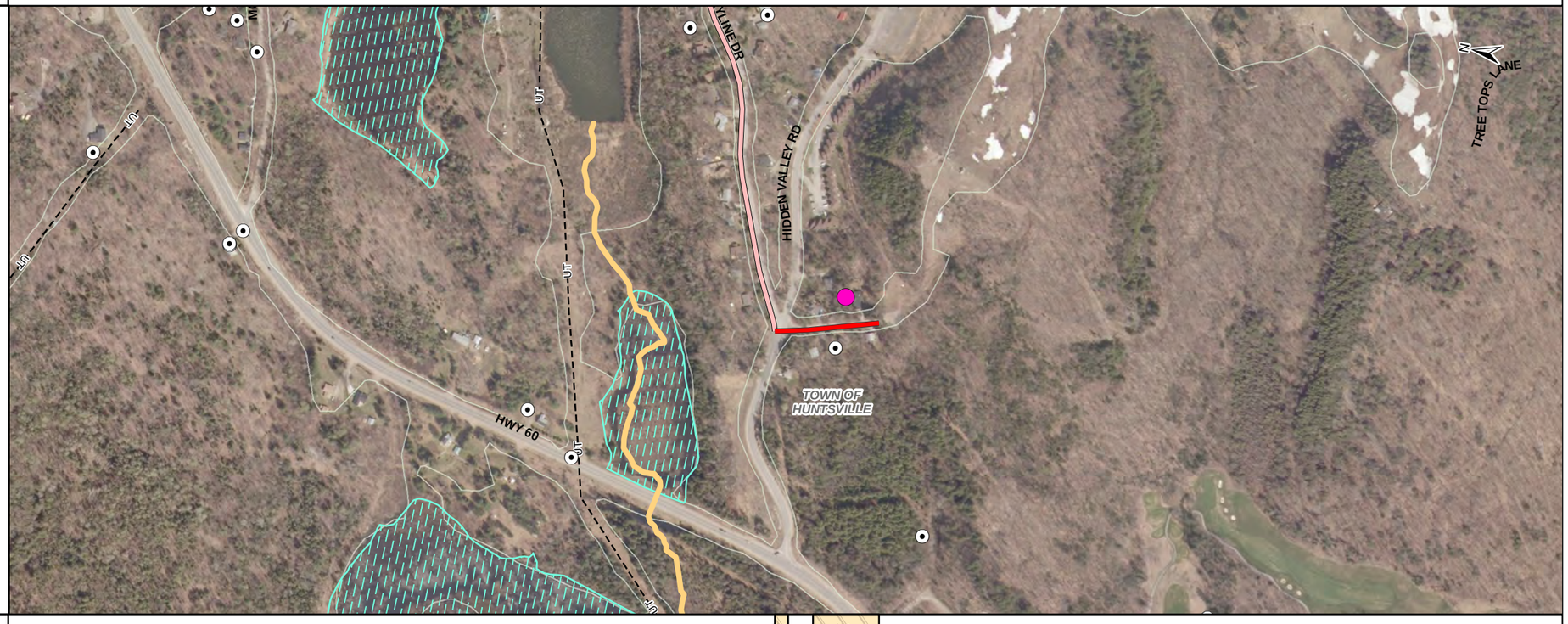


Construction Mitigation

CONSTRUCTION REQUIREMENTS	Note 5; Note 5
FISHERIES TIMING RESTRICTIONS (CONSTRUCT BETWEEN)	
PIPELINE CROSSING METHODS	
VEGETATION RESTRICTIONS	Notes 1, 2 & 6
PERMITTING REQUIREMENTS	
MONITORING	Note 3 & 4
SPECIES AT RISK (SAR) HABITAT	
POTENTIALLY CONTAMINATED SITES	
SEED MIX	

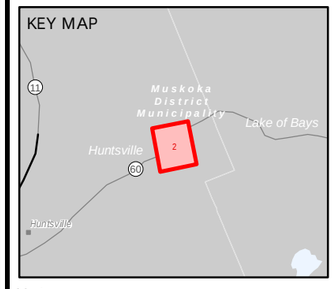
Stantec
ENBRIDGE

Legend
- Preferred Route (Segment Evaluated)
- Preferred Route (Segment not Evaluated on this page)

Base / Environmental Features
- Water Well (MOECC)
- Warm Water, Thermal Regime
- UT Utility Transmission Corridor
- Watercourse
- Waterbody
- Unevaluated Wetland (per OWES)
- Wooded Area

Socio-Economic Features
- Recreation
- School

KEY MAP



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Project Location
District Municipality of Muskoka

160925135
Prepared by KB on 2022-07-26
Technical Review by SE on 2022-07-14

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
A-2

Title
Environmental Alignment Sheets - Map 2

Resources	
CONSERVATION AUTHORITY REGULATED AREA / ANSI	
WETLAND WATERCOURSE ANSI	
VEGETATION	Wooded Area
WATER WELL WITHIN 50 m	Well Present; Well Present; Wells Present; Well Present
LINEAR FEATURES	Driveways & Roads; Driveways & Roads; Driveways & Roads; Driveways & Roads; Driveways & Roads; Driveways & Roads
ENVIRONMENTALLY SENSITIVE AREA	
SPECIES AT RISK (SAR) HABITAT	

Construction Mitigation Notes:
Note 1: No clearing activities during the migratory breeding bird restricted activity period (April 1 – August 31) without preconstruction nesting surveys. Refer to Section 4.4.4 of the ER and Section 8.2 of the ECMM 2021.
Note 2: Tree removal to avoid the active season for bats (m id-April to m id-September). Refer to Section 4.4.4 of the ER and Section 8.2 of the ECMM 2021.
Note 3: Groundwater wells present – Refer to Section 4.3.3 of the ER and Section 8.6.2 of the ECMM 2021.
Note 4: Water well monitoring program recommended. Refer to Section 7.1.2 of the ER.
Note 5: Maintain emergency egress. Refer to Section 3.5.3 of the ER and Section 18.0 of the ECMM 2021.
Note 6: Prior to working in this area SAR surveys, Butternut Health Assessments, tree inventories, breeding bird surveys, and bat exit surveys should be completed.

Acronyms List:
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KCA: Kawartha Conservation Authority
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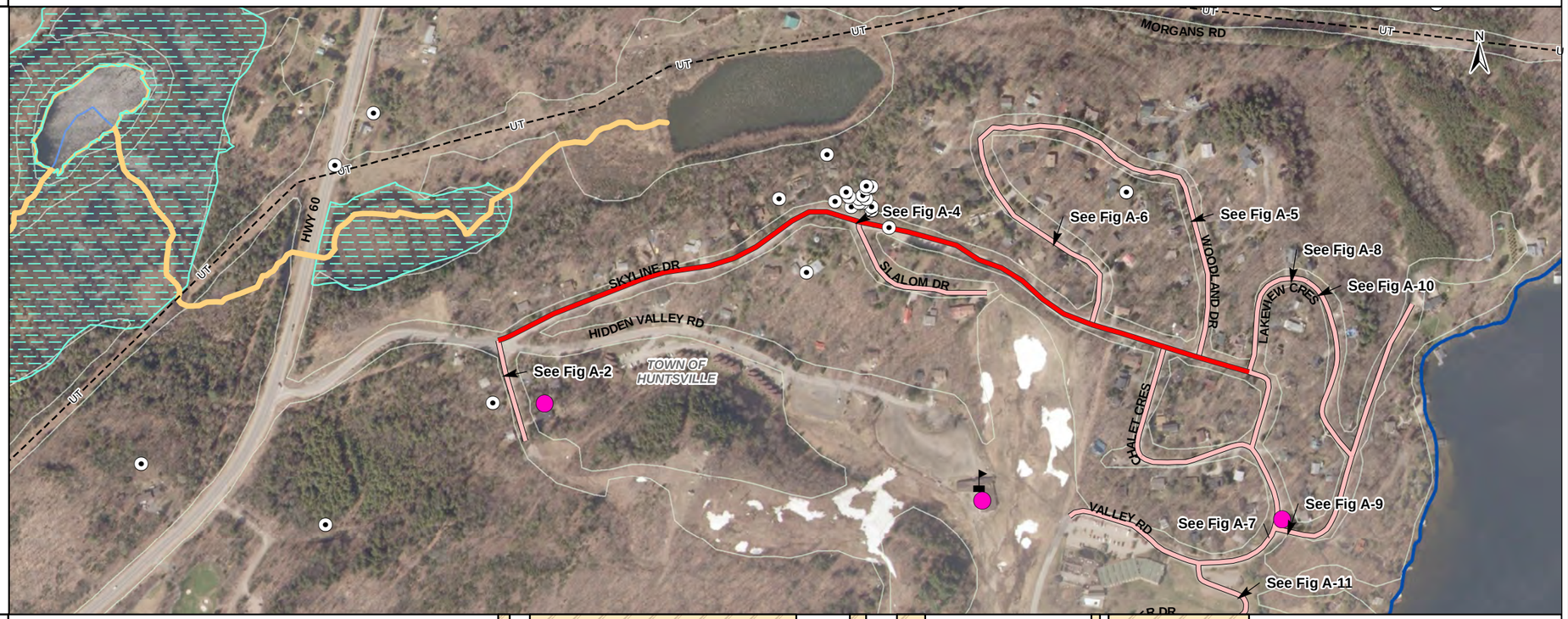
MNRF: Ministry of Northern Development, Mines, Natural Resources and Forestry



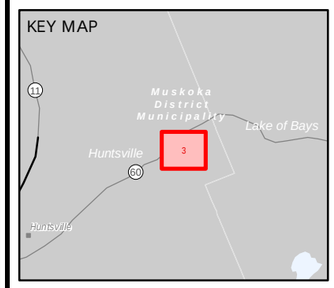
Construction Mitigation	
CONSTRUCTION REQUIREMENTS	Note 5; Note 5; Note 5; Note 5; Note 5; Note 5
FISHERIES TIMING RESTRICTIONS (CONSTRUCT BETWEEN)	
PIPELINE CROSSING METHODS	
VEGETATION RESTRICTIONS	Notes 1, 2 & 6
PERMITTING REQUIREMENTS	
MONITORING	Note 3 & 4; Note 3 & 4; Note 3 & 4; Note 3 & 4
SPECIES AT RISK (SAR) HABITAT	
POTENTIALLY CONTAMINATED SITES	
SEED MIX	

Stantec
ENBRIDGE

Legend
- Preferred Route (Segment Evaluated)
- Preferred Route (Segment not Evaluated on this page)

Base / Environmental Features
- Water Well (MOECC)
- Warm Water, Thermal Regime
- UT Utility Transmission Corridor
- Watercourse
- Waterbody
- Unevaluated Wetland (per OWES)
- Wooded Area

Socio-Economic Features
- Recreation
- Residential Community
- School



Notes
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3. Orthoimagery © First Base Solutions, 2022. Imagery Date, 2008.
4. MOECC Water well locations are approximate and have been positioned based on published UTM coordinates © Queen's Printer for Ontario, 2022.

0 150 300 m

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Project Location
District Municipality of Muskoka

160925135
Prepared by KB on 2022-07-26
Technical Review by SE on 2022-07-14

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
A-3

Title
Environmental Alignment Sheets - Map 3

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Revised: 2022-07-26 By: bakaur

Resources		
	CONSERVATION AUTHORITY REGULATED AREA / ANSI	
	WETLAND WATERCOURSE ANSI	
	VEGETATION	Wooded Area
	WATER WELL WITHIN 50 m	
	LINEAR FEATURES	Driveways & Roads / Driveways & Roads
	ENVIRONMENTALLY SENSITIVE AREA	
	SPECIES AT RISK (SAR) HABITAT	

Construction Mitigation Notes:
Note 1: No clearing activities during the migratory breeding bird restricted activity period (April 1 – August 31) without preconstruction nesting surveys. Refer to Section 4.4.4 of the ER and Section 8.2 of the ECMM 2021.
Note 2: Tree removal to avoid the active season for bats (m id-April to m id-September). Refer to Section 4.4.4 of the ER and Section 8.2 of the ECMM 2021.
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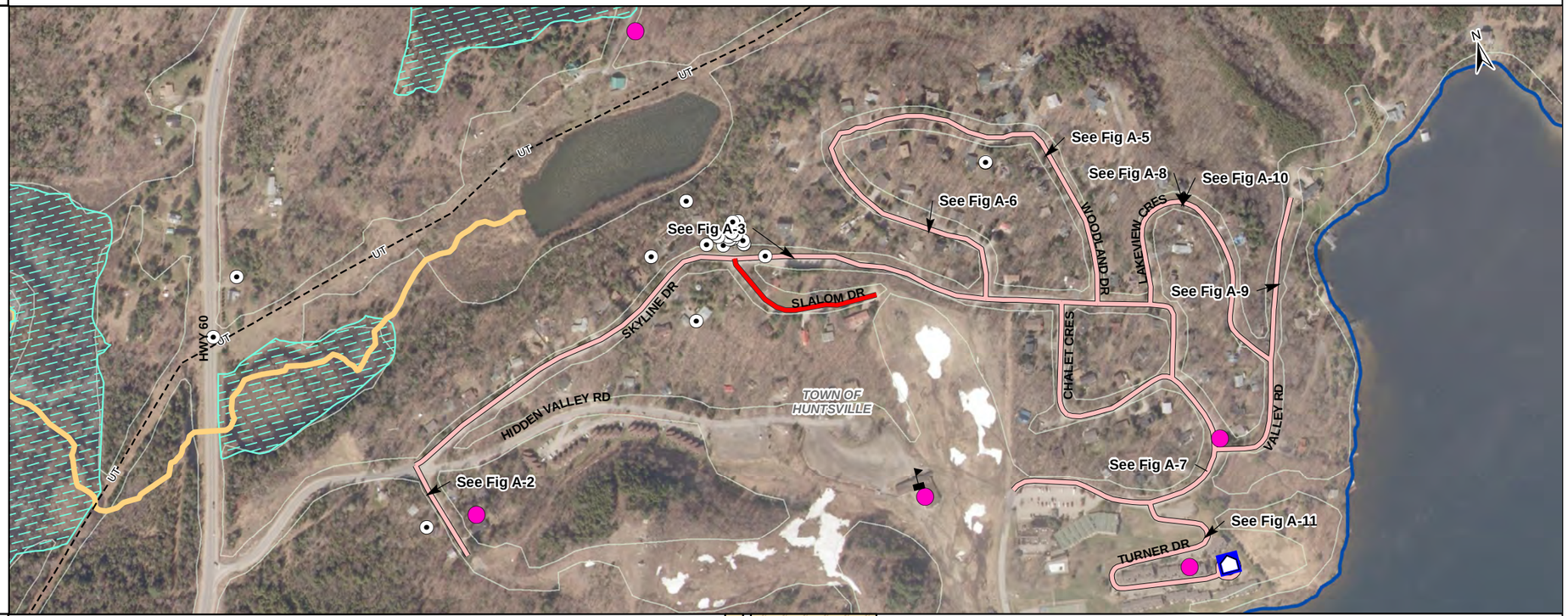


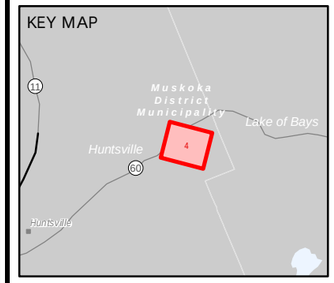
Construction Mitigation		
	CONSTRUCTION REQUIREMENTS	Note 5 / Note 5
	FISHERIES TIMING RESTRICTIONS (CONSTRUCT BETWEEN)	
	PIPELINE CROSSING METHODS	
	VEGETATION RESTRICTIONS	Notes 1, 2 & 6
	PERMITTING REQUIREMENTS	
	MONITORING	
	SPECIES AT RISK (SAR) HABITAT	
	POTENTIALLY CONTAMINATED SITES	
	SEED MIX	

Legend
- Preferred Route (Segment Evaluated)
- Preferred Route (Segment not Evaluated on this page)

Base / Environmental Features
- Water Well (MOECC)
- Warm Water, Thermal Regime
- UT Utility Transmission Corridor
- Watercourse
- Waterbody
- Unevaluated Wetland (per OWES)
- Wooded Area

Socio-Economic Features
- Recreation
- Residential Community
- School

KEY MAP



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Project Location
District Municipality of Muskoka

160925135
Prepared by KB on 2022-07-26
Technical Review by SE on 2022-07-14

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
A-4

Title
Environmental Alignment Sheets - Map 4

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Revised: 2022-07-26 By: bakaur

Resources	
	CONSERVATION AUTHORITY REGULATED AREA / ANSI
	WETLAND WATERCOURSE ANSI
	VEGETATION — Wooded Area
	WATER WELL WITHIN 50 m — Well Present
	LINEAR FEATURES — Driveways & Roads; Driveways & Roads
	ENVIRONMENTALLY SENSITIVE AREA
	SPECIES AT RISK (SAR) HABITAT

Construction Mitigation Notes:
Note 1: No clearing activities during the migratory breeding bird restricted activity period (April 1 – August 31) without preconstruction nesting surveys. Refer to Section 4.4.4 of the ER and Section 8.2 of the ECMM 2021.
Note 2: Tree removal to avoid the active season for bats (m id-April to m id-September). Refer to Section 4.4.4 of the ER and Section 8.2 of the ECMM 2021.
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MNRF: Ministry of Northern Development, Mines, Natural Resources and Forestry

Construction Mitigation		
	CONSTRUCTION REQUIREMENTS	Note 5; Note 5
	FISHERIES TIMING RESTRICTIONS (CONSTRUCT BETWEEN)	
	PIPELINE CROSSING METHODS	
	VEGETATION RESTRICTIONS	Notes 1, 2 & 6
	PERMITTING REQUIREMENTS	
	MONITORING	Note 3 & 4
	SPECIES AT RISK (SAR) HABITAT	
	POTENTIALLY CONTAMINATED SITES	
	SEED MIX	

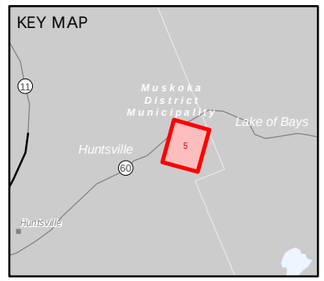
Stantec
ENBRIDGE

Legend
- Preferred Route (Segment Evaluated)
- Preferred Route (Segment not Evaluated on this page)

Base / Environmental Features
- Water Well (MOECC)
- Cold Water, Thermal Regime
- Warm Water, Thermal Regime
- UT Utility Transmission Corridor
- Watercourse
- Waterbody
- Unevaluated Wetland (per OWES)
- Wooded Area

Socio-Economic Features
- Recreation
- Residential Community
- School

KEY MAP



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Project Location
District Municipality of Muskoka

160925135
Prepared by KB on 2022-07-26
Technical Review by SE on 2022-07-14

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
A-5

Title
Environmental Alignment Sheets - Map 5

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Revised: 2022-07-26 By: bakaur

Resources

CONSERVATION AUTHORITY REGULATED AREA / ANSI				
WETLAND WATERCOURSE ANSI				
VEGETATION		Wooded Area	Wooded Area	
WATER WELL WITHIN 50 m				
LINEAR FEATURES		Driveways & Roads	Driveways & Roads	
ENVIRONMENTALLY SENSITIVE AREA				
SPECIES AT RISK (SAR) HABITAT				

Construction Mitigation Notes:
Note 1: No clearing activities during the migratory breeding bird restricted activity period (April 1 – August 31) without preconstruction nesting surveys. Refer to Section 4.4.4 of the ER and Section 8.2 of the ECMM 2021.
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Construction Mitigation

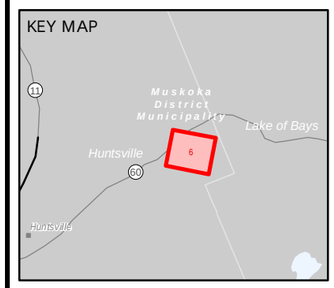
CONSTRUCTION REQUIREMENTS		Note 5	Note 5	
FISHERIES TIMING RESTRICTIONS (CONSTRUCT BETWEEN)				
PIPELINE CROSSING METHODS				
VEGETATION RESTRICTIONS		Notes 1, 2 & 6	Notes 1, 2 & 6	
PERMITTING REQUIREMENTS				
MONITORING				
SPECIES AT RISK (SAR) HABITAT				
POTENTIALLY CONTAMINATED SITES				
SEED MIX				

Stantec
ENBRIDGE

Legend
- Preferred Route (Segment Evaluated)
- Preferred Route (Segment not Evaluated on this page)

Base / Environmental Features
- Water Well (MOECC)
- Warm Water, Thermal Regime
- UT Utility Transmission Corridor
- Watercourse
- Waterbody
- Unevaluated Wetland (per OWES)
- Wooded Area

Socio-Economic Features
- Recreation
- Residential Community
- School



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Project Location
District Municipality of Muskoka

160925135
Prepared by KB on 2022-07-26
Technical Review by SE on 2022-07-14

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
A-6

Title
Environmental Alignment Sheets - Map 6

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Revised: 2022-07-26 By: bakaur

Resources	
CONSERVATION AUTHORITY REGULATED AREA / ANSI	
WETLAND WATERCOURSE ANSI	
VEGETATION	Wooded Area
WATER WELL WITHIN 50 m	Well Present
LINEAR FEATURES	Driveways & Roads; Driveways & Roads
ENVIRONMENTALLY SENSITIVE AREA	
SPECIES AT RISK (SAR) HABITAT	

Construction Mitigation Notes:
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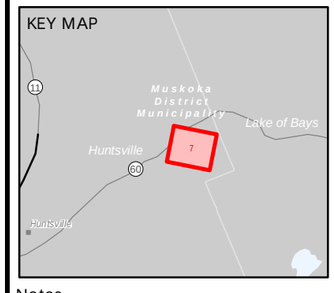
Construction Mitigation	
CONSTRUCTION REQUIREMENTS	Note 5; Note 5
FISHERIES TIMING RESTRICTIONS (CONSTRUCT BETWEEN)	
PIPELINE CROSSING METHODS	
VEGETATION RESTRICTIONS	Notes 1, 2 & 6
PERMITTING REQUIREMENTS	
MONITORING	Note 3 & 4
SPECIES AT RISK (SAR) HABITAT	
POTENTIALLY CONTAMINATED SITES	
SEED MIX	

Stantec
ENBRIDGE

Legend
- Preferred Route (Segment Evaluated)
- Preferred Route (Segment not Evaluated on this page)

Base / Environmental Features
- Water Well (MOECC)
- Warm Water, Thermal Regime
- UT Utility Transmission Corridor
- Watercourse
- Waterbody
- Unevaluated Wetland (per OWES)
- Wooded Area

Socio-Economic Features
- Recreation
- Residential Community
- School



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Project Location
District Municipality of Muskoka

160925135
Prepared by KB on 2022-07-26
Technical Review by SE on 2022-07-14

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
A-7

Title
Environmental Alignment Sheets - Map 7

Resources

CONSERVATION AUTHORITY REGULATED AREA / ANSI	
WETLAND WATERCOURSE ANSI	
VEGETATION	Wooded Area
WATER WELL WITHIN 50 m	
LINEAR FEATURES	Driveways & Roads; Driveways & Roads
ENVIRONMENTALLY SENSITIVE AREA	
SPECIES AT RISK (SAR) HABITAT	

Construction Mitigation Notes:
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Construction Mitigation

CONSTRUCTION REQUIREMENTS	Note 5; Note 5
FISHERIES TIMING RESTRICTIONS (CONSTRUCT BETWEEN)	
PIPELINE CROSSING METHODS	
VEGETATION RESTRICTIONS	Notes 1, 2 & 6
PERMITTING REQUIREMENTS	
MONITORING	
SPECIES AT RISK (SAR) HABITAT	
POTENTIALLY CONTAMINATED SITES	
SEED MIX	

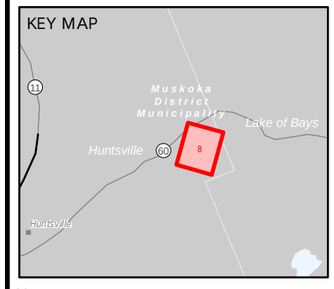
Stantec
ENBRIDGE

Legend
- Preferred Route (Segment Evaluated)
- Preferred Route (Segment not Evaluated on this page)

Base / Environmental Features
- Water Well (MOECC)
- Cold Water, Thermal Regime
- UT Utility Transmission Corridor
- Watercourse
- Waterbody
- Unevaluated Wetland (per OWES)
- Wooded Area

Socio-Economic Features
- Recreation
- Residential Community
- School

KEY MAP



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Project Location
District Municipality of Muskoka

160925135
Prepared by KB on 2022-07-26
Technical Review by SE on 2022-07-14

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
A-8

Title
Environmental Alignment Sheets - Map 8

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Revised: 2022-07-26 By: bakaur

Resources	
CONSERVATION AUTHORITY REGULATED AREA / ANSI	
WETLAND WATERCOURSE ANSI	
VEGETATION	Wooded Area
WATER WELL WITHIN 50 m	
LINEAR FEATURES	Driveways & Roads; Driveways & Roads
ENVIRONMENTALLY SENSITIVE AREA	
SPECIES AT RISK (SAR) HABITAT	

Construction Mitigation Notes:
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Construction Mitigation	
CONSTRUCTION REQUIREMENTS	Note 5; Note 5
FISHERIES TIMING RESTRICTIONS (CONSTRUCT BETWEEN)	
PIPELINE CROSSING METHODS	
VEGETATION RESTRICTIONS	Notes 1, 2 & 6
PERMITTING REQUIREMENTS	
MONITORING	
SPECIES AT RISK (SAR) HABITAT	
POTENTIALLY CONTAMINATED SITES	
SEED MIX	

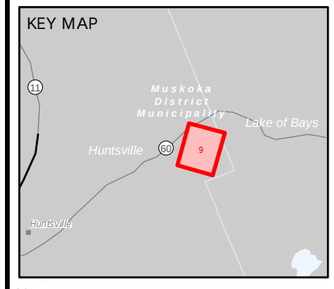
Stantec
ENBRIDGE

Legend
- Preferred Route (Segment Evaluated)
- Preferred Route (Segment not Evaluated on this page)

Base / Environmental Features
- Water Well (MOECC)
- Cold Water, Thermal Regime
- UT Utility Transmission Corridor
- Watercourse
- Waterbody
- Wooded Area

Socio-Economic Features
- Recreation
- Residential Community
- School

KEY MAP



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Project Location
District Municipality of Muskoka

160925135
Prepared by KB on 2022-07-26
Technical Review by SE on 2022-07-14

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
A-9

Title
Environmental Alignment Sheets - Map 9

Resources		
	CONSERVATION AUTHORITY REGULATED AREA / ANSI	
	WETLAND WATERCOURSE ANSI	
	VEGETATION	Wooded Area
	WATER WELL WITHIN 50 m	
	LINEAR FEATURES	Driveways & Roads; Driveways & Roads
	ENVIRONMENTALLY SENSITIVE AREA	
	SPECIES AT RISK (SAR) HABITAT	

Construction Mitigation Notes:
Note 1: No clearing activities during the migratory breeding bird restricted activity period (April 1 – August 31) without preconstruction nesting surveys. Refer to Section 4.4.4 of the ER and Section 8.2 of the ECMM 2021.
Note 2: Tree removal to avoid the active season for bats (m id-April to m id-September). Refer to Section 4.4.4 of the ER and Section 8.2 of the ECMM 2021.
Note 3: Groundwater wells present – Refer to Section 4.3.3 of the ER and Section 8.6.2 of the ECMM 2021.
Note 4: Water well monitoring program recommended. Refer to Section 7.1.2 of the ER.
Note 5: Maintain emergency egress. Refer to Section 3.5.3 of the ER and Section 18.0 of the ECMM 2021.
Note 6: Prior to working in this area SAR surveys, Butternut Health Assessments, tree inventories, breeding bird surveys, and bat exit surveys should be completed.

Acronyms List:
ER: Environmental Report (Stantec 2021)
ECMM: Enbridge Construction and Maintenance Manual, October 27, 2021 (ECMM 2021)
KCA: Kawartha Conservation Authority
ORCA: Otonabee Regional Conservation Authority
MNRF: Ministry of Northern Development, Mines, Natural Resources and Forestry

Construction Mitigation		
	CONSTRUCTION REQUIREMENTS	Note 5; Note 5
	FISHERIES TIMING RESTRICTIONS (CONSTRUCT BETWEEN)	
	PIPELINE CROSSING METHODS	
	VEGETATION RESTRICTIONS	Notes 1, 2 & 6
	PERMITTING REQUIREMENTS	
	MONITORING	
	SPECIES AT RISK (SAR) HABITAT	
	POTENTIALLY CONTAMINATED SITES	
	SEED MIX	

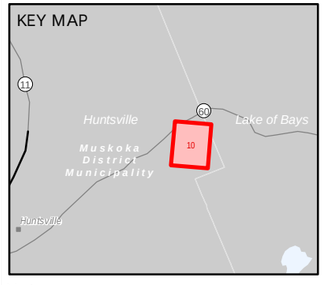
Stantec
ENBRIDGE

Legend
- Preferred Route (Segment Evaluated)
- Preferred Route (Segment not Evaluated on this page)

Base / Environmental Features
- Water Well (MOECC)
- Cold Water, Thermal Regime
- UT Utility Transmission Corridor
- Watercourse
- Waterbody
- Unevaluated Wetland (per OWES)
- Wooded Area

Socio-Economic Features
- Recreation
- Residential Community
- School

KEY MAP



Notes
1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2022.
3. Orthoimagery © First Base Solutions, 2022. Imagery Date, 2008.
4. MOECC Water well locations are approximate and have been positioned based on published UTM coordinates © Queen's Printer for Ontario, 2022.

0 150 300 m

1:6,000 (At Original document size of 11x17)

Project Location
District Municipality of Muskoka

160925135
Prepared by KB on 2022-07-26
Technical Review by SE on 2022-07-14

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
A-10

Title
Environmental Alignment Sheets - Map 10

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Revised: 2022-07-26 By: bakaur

Resources	
CONSERVATION AUTHORITY REGULATED AREA / ANSI	
WETLAND WATERCOURSE ANSI	
VEGETATION	
WATER WELL WITHIN 50 m	
LINEAR FEATURES	Driveways & Roads
ENVIRONMENTALLY SENSITIVE AREA	
SPECIES AT RISK (SAR) HABITAT	

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Construction Mitigation	
CONSTRUCTION REQUIREMENTS	Note 5
FISHERIES TIMING RESTRICTIONS (CONSTRUCT BETWEEN)	
PIPELINE CROSSING METHODS	
VEGETATION RESTRICTIONS	
PERMITTING REQUIREMENTS	
MONITORING	
SPECIES AT RISK (SAR) HABITAT	
POTENTIALLY CONTAMINATED SITES	
SEED MIX	

Stantec
ENBRIDGE

Legend
- Preferred Route (Segment Evaluated)
- Preferred Route (Segment not Evaluated on this page)

Base / Environmental Features
- Water Well (MOECC)
- Warm Water, Thermal Regime
- UT Utility Transmission Corridor
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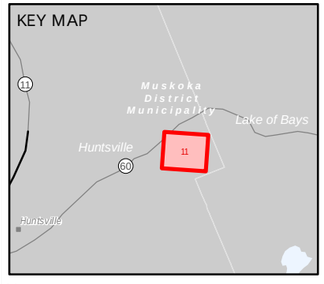
KEY MAP



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0 150 300 m

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Technical Review by SE on 2022-07-14

Client/Project
ENBRIDGE GAS DISTRIBUTION INC.
HIDDEN VALLEY COMMUNITY EXPANSION

Figure No.
A-11

Title
Environmental Alignment Sheets - Map 11

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Revised: 2022-07-26 By: bakaur