Greenstone Pipeline Project: Environmental Report

FINAL REPORT

August 9, 2021

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Executive Summary

Enbridge Gas Inc. (“Enbridge Gas”) is proposing to construct a 13 kilometre (km) 6-inch diameter steel natural gas pipeline in the Municipality of Greenstone, Ontario. The Greenstone Pipeline Project (“the Project”) will service the Greenstone Gold Mines GP Inc.’s Greenstone Mine Project with clean, affordable natural gas. The Project will commence at the Enbridge Gas Station located adjacent to the TransCanada pipeline, 3.5 km north of Geraldton, Ontario, and will terminate south of TransCanada Highway 11 between Lahtis Road and Hardrock Road.

Enbridge Gas has retained Stantec Consulting Ltd. (“Stantec’) to undertake an environmental study of the construction and operation of the natural gas pipeline that meets the intent 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 Environmental Report (ER), which summarizes the environmental study, will accompany a future Enbridge Gas “Leave to Construct” (LTC) application to the OEB for the Project.

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 Preliminary Preferred Route was reviewed, and potential alternative segments were identified. The Preliminary Preferred Route and alternative segments are collectively referred to as the “Study Area”. An extensive consultation program was conducted for the Project to engage federal and provincial agencies, conservation authorities, municipal personnel and elected officials, Indigenous communities, special interest groups, and residents and businesses within 500 metres (m) of the Preliminary Preferred Route and alternative segments. The consultation program included development and maintenance of a stakeholder Contact List which was used to distribute the required notice, newspaper advertisements, agency meetings, an in-person Open House, and provision of feedback to those members of the public who had questions, issues, or concerns or positive feedback about the Project. Enbridge Gas is committed to ongoing 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 route evaluation process was undertaken as per the OEB *Environmental Guidelines* (2016), which identifies the environmental and socio-economic features to take into consideration and the principles to be considered during the route evaluation. Following a comparative evaluation which considered environmental and socio-economic features and the results of the consultation program, a preferred route was identified. The location of the preferred route is shown in Figure A4, Appendix A.

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 that ongoing consultation, appropriate mitigation, and protective measures are implemented, potential cumulative effects will be of low probability and magnitude, short duration, and reversible, positive and are therefore not anticipated to be significant.

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
BSC	Bird Studies Canada
BSA	Biological Study Area
CHAR	Cultural Heritage Assessment Report
cm	Centimetre(s)
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
COSSARO	Committee on the Status of Species at Risk in Ontario
CSBDNL	Catholic School Board District of Northern Lights
DFO	Fisheries and Oceans Canada
EASR	Environmental Activity and Sector Registry
ECCC	Environment and Climate Change Canada
ECP	Environmental Construction Plan
Enbridge Gas	Enbridge Gas Inc.
ESC	Erosion and Sediment Control
ER	Environmental Report
ESA	*Endangered Species Act*
HADD	Harmful alteration, disruption or destruction

FRI	Forest Resource Inventory
GM	Greenstone Mine
HDD	Horizontal Directional Drill
IO	Infrastructure Ontario
km	Kilometre(s)
LTC	Leave to Construct
m	Metre(s)
MBCA	*Migratory Bird Convention Act*
MECP	Ministry of the Environment, Conservation and Parks
MENDM	Ministry of Energy, Northern Development and Mines
MNRF	Ministry of Natural Resources and Forestry
MHSTCI	Ministry of Heritage, Sport, Tourism and Culture Industries
MTO	Ministry of Transportation
NHIC	Natural Heritage Information Centre
NRC	Natural Resources Canada
OHA	*Ontario Heritage Act*
OEB	Ontario Energy Board
OP	Official Plan
OPCC	Ontario Pipeline Coordinating Committee
OPP	Ontario Provincial Police

O. Reg	Ontario Regulation
OWES	Ontario Wetland Evaluation System
PTTW	Permit to Take Water
RoW	Right-of-way
SAR	Species at Risk
SARA	*Species at Risk Act*
SARO	Species at Risk in Ontario
SGDSB	Superior Greenstone District School Board
SOCC	Species of Conservation Concern
SpC	Special Concern
Stantec	Stantec Consulting Ltd.
TC	Transport Canada
The Project	Greenstone Pipeline Project
THR	Threatened
TMP	Traffic Management Plan
SWH	Significant wildlife habitats
SNCDSB	Superior North Catholic District School Board
Union Gas	Union Gas Ltd.
WWR	Water Well Record(s)

1.0 INTRODUCTION

1.1 LAND ACKNOWLEDGEMENT

The Project area is located in the traditional territory of the Ojibwe and Oji-Cree people who have resided along the Kenogamisis River since time immemorial. And we respectfully acknowledge the Metis people, whom have traditionally resided in this territory. This Project is located in Treaty 9 and Robinson Superior Treaty territory, the Metis Nation of Ontario's Region 2, and the Red Sky Metis Independent Nation territory.

1.2 PROJECT DESCRIPTION

To service the Greenstone Gold Mines GP Inc.'s Greenstone Mine Project with clean, affordable natural gas, Enbridge Gas Inc. ("Enbridge Gas") is proposing to construct a 13 kilometre (km) 6-inch diameter steel natural gas pipeline in the Municipality of Greenstone, Ontario. The Greenstone Pipeline Project ("the Project") will commence at the existing Enbridge Gas valve site located adjacent to the TransCanada pipeline, 3.5 km north of Geraldton, Ontario, and will terminate south of TransCanada Highway 11 between Lahtis Road and Hardrock Road.

In 2014, Enbridge Gas, formerly legacy Union Gas Ltd. ("Union Gas"), retained Stantec Consulting Ltd. ("Stantec") to undertake an environmental study of the construction and operation of the Project. Since completing the original study that commence in 2014, Enbridge Gas identified and proposed minor routing modifications for the Project near the termination point south of Highway 11. The original study and secondary study which followed the proposed routing modifications, is presented below in this Environmental Report ("ER") for the Project.

1.3 ENVIRONMENTAL STUDY

1.3.1 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 Ontario Energy Board (OEB) *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 7th Edition* (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*.

To meet these objectives, the environmental study was prepared to:

- Undertake a route evaluation process
- Implement a consultation and engagement program to receive input from interested and potentially affected parties
- Identify a preferred pipeline route that reduces potential environmental impacts
- Assess potential environmental impacts of the Project on environmental features, and establish mitigation and protective measures that may be used to reduce and eliminate, where possible and feasible, potential environmental impacts of the Project
- Identify any necessary supplemental studies, monitoring, and contingency plans

1.3.2 Process

The environmental study was divided into the following five main phases:

- Phase I: Evaluation of alternative routes and identification of a Preliminary Preferred Route
- Phase II: Consultation and Engagement on the Route Options
- Phase III: Confirmation of the Preferred Route; Preparation of this Environmental Report ("ER")
- Phase IV: Routing Modification and Study Re-Commencement

Phase I: Evaluation of Alternative Routes and Identification of a Preliminary Preferred Route

The environmental study began with the route evaluation process. The alternate routes and the Preliminary Preferred Route were identified by Enbridge Gas based on the potential tie-in locations and engineering considerations, as well as environmental constraints as identified by Stantec.

Phase II: Consultation and Engagement on the Route Options

Phase II involved notifying the following entities of the Project:

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

Feedback on the Preliminary Preferred Route was sought through newspaper notices, letters, a television advertisement conveyed in English and Canadian-French, and an Open House held on April 20, 2016.

As part of the consultation process, information requests were made to several agencies to assist with identifying environmental features, constraints, the potential for presence of Species at Risk (SAR), and associated SAR habitat. Information gathered from these studies was considered for developing mitigation and protective measures based on predicted effects and potential impacts. The gathering of information continued throughout the Project.

Phase III: Confirmation of the Preferred Route and Preparation of this ER

Based on feedback received during consultation and engagement, the preferred route was confirmed. The next 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 potential impacts.

The impacts analysis was captured in the Environmental Report (ER) and Photo Mosaic were prepared to identify site-specific mitigation and protective measures to be implemented during construction (see Appendix G).

Phase IV: Routing Modification Study Re-Commencement

Three years following the commencement of the environmental study, Enbridge Gas proposed minor routing modifications to the Project near the termination point south of Highway 11. A Notice of Study Re-Commencement was issued to capture comments and feedback on the proposed new route. Input received during consultation was documented in the ER. The ER was further updated to capture an assessment of potential environmental and socio-economic impacts and cumulative effects of the modified preferred route. Updates to the ER were also made to reflect new mitigation measures and changes to legislation/regulation, the physical environment, and socio-economic features. Changes to biophysical features and the potential impacts and mitigation measures associated with the new route were captured in the Terrestrial Report, Appendix D.

1.3.3 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:

1.0 **Introduction:** provides a description of the project and the environmental study

2.0 **Route Evaluation and Selection**: provides an overview of the pipeline route evaluation and selection process

3.0 **Consultation Program:** describes the consultation program

4.0 **Existing Conditions:** describes the environmental and socio-economic existing conditions

5.0 **Impact Identification, Assessment, and Mitigation:** predicts potential effects and impacts, recommends supplemental studies, mitigation, and protective measures, and considers net impacts

6.0 **Cumulative Effects**: provides an analysis of potential cumulative effects associated with the Project

7.0 **Monitoring and Contingency Plans**: describes monitoring and contingency plans to address potential environmental impacts of the Project

8.0 **Conclusion:** provides a discussion and consideration of the potential environmental impacts associated with the Project

The ER also includes references and appendices for documentation.

1.3.4 The OEB Regulatory Process

Once complete, the ER is circulated 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 will accompany a future Enbridge Gas “Leave-to-Construct” (LTC) 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 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 and issue a LTC order. The OEB typically attaches conditions to approved Projects. Enbridge Gas must comply with these conditions at all stages of the Project, including during construction, site restoration, and post construction.

1.3.5 Additional Regulatory Processes

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

Table 1.1: Summary of Potential Environmental Permit and Approval Requirements

Permit/Approval Name	Administering Agency	Description
FEDERAL PERMITS AND APPROVALS		
Clearing of Vegetation under the *Migratory Bird Convention Act* (MBCA) (Government of Canada 1994) *No permit is necessary; however, measures should be implemented to monitor that no breeding birds or their nests are harmed or destroyed during the bird nesting season.*	Environment and Climate Change Canada (ECCC)	All vegetation clearing and removal should be completed outside the primary breeding (nesting) period for birds. The primary nesting period is defined as the period when the per cent of total nesting species is greater than 10% based on the ECCC's Nesting Calendar, and due diligence mitigation measures are generally recommended (ECCC 2017); however, if vegetation removal occurs in this window (May 1 to August 31), a qualified biologist must conduct nest surveys in the marked areas to be cleared in accordance with the MBCA. If nests are found, clearing of the area will cease until the young have naturally fledged.
Authorizations under the *Fisheries* Act (Government of Canada 1985)	Fisheries and Oceans Canada (DFO)	The federal *Fisheries Act* (1985) defines fish habitat as "…waters frequented by fish and any other areas on which fish depend directly or indirectly in order to carry out their life processes including spawning grounds and nursery, rearing, food supply and migration areas." The fish and fish habitat protection provisions of the *Fisheries Act* apply to all fish and fish habitat in Canada. Section 35 (1) of the Act prohibits activities that result in the death of fish or the harmful alteration, disruption or destruction (HADD) of fish habitat unless authorized by the Minister of Fisheries, Oceans and the Canadian Coast Guard. Where DFO determines that the death of fish or HADD of fish habitat is unavoidable as part a Project, an authorization under the *Fisheries Act* may be required.
Permitting under the SARA (Government of Canada 2002)	DFO	The federal *Species at Risk Act* (SARA) contains prohibitions against the killing, harming, harassing, capturing, taking, possessing, collecting, buying, selling or trading of individuals of endangered, threatened and extirpated species listed in Schedule 1 of the Act. The Act also contains a prohibition against the damage or destruction of their residences (e.g., nest or den). With respect to aquatic species (fish and mussels), the prohibitions apply to all endangered, threatened and extirpated species listed in Schedule 1 of SARA, anywhere they occur, including private lands, provincial lands and lands in a territory. The SARA allows for permits to be issued or agreements to be entered into under certain conditions, to authorize certain activities that would otherwise contravene the Act. The DFO may issue a SARA Permit for activities that have the potential to affect fish or mussel species protected under the SARA.

Table 1.1: Summary of Potential Environmental Permit and Approval Requirements

Permit/Approval Name	Administering Agency	Description
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* (1990a)	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 in another portion of the same surface water feature.
Public Lands Act Permit	Ministry of Natural Resources and Forestry (MNRF)	Required for watercourse crossings on Crown Land.
License to *Collect Fish for Scientific Purposes*	MNRF	Fish rescue plans should be developed on a site-specific basis and implemented by qualified professionals with the appropriate license in place.
Encroachment Permit under the *Highways Act*	Ministry of Transportation (MTO)	Required to conduct work in the right-of-way (RoW) of Trans-Canada Highway 11.
Crossing Approval	Hydro One Networks Inc. (Hydro One)	Required for crossing Hydro One's electric transmission corridors.
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. 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." A letter request for Species at Risk permitting review was submitted to MECP in February 2020. SAR dialogue remains on-going and MECP response is subject to the review of the refined preferred route alignment.

Table 1.1: Summary of Potential Environmental Permit and Approval Requirements

Permit/Approval Name	Administering Agency	Description
Archaeological clearance under the *Ontario Heritage Act* (OHA) (1990b)	Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI)	A Stage 1 and Stage 2 Archaeological Assessment was completed for the Project along the (RoW) to identify areas of archaeological potential prior to any ground disturbances and/or site alterations. The completed archaeological assessment reports were provided to the MHSTCI for review and comment.
Review of Built Heritage and Cultural Landscape under the OHA (1990b)	MHSTCI	A Heritage Overview Study has been completed to determine the presence of built heritage and cultural landscapes.
MUNICIPAL PERMITS AND APPROVALS		
Road Use Agreement	Municipality of Greenstone	Required to locate pipelines in municipal road allowances.
Adherence to noise by-laws	Municipality of Greenstone	Construction activities should adhere to local noise by-law restrictions, unless otherwise permitted by the Municipality.

2.0 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. The preferred route for the Project was confirmed through a five-step process:

- **Step 1:** Identify Study Area and Gather Information
- **Step 2:** Develop Route Parameters
- **Step 3:** Evaluation and Comparison of Route Options and Identification of a Preliminary Preferred Route
- **Step 4:** Solicit Input on the Preliminary Preferred Route and Route Options
- **Step 5:** Confirmation of the Preferred Route and Study Re-Commencement

2.2 STEP 1: IDENTIFY STUDY AREA AND GATHER INFORMATION

2.2.1 Identifying the Study Area

The northern and southern boundaries of the Study Area were defined by the proposed starting point located at the existing Enbridge Gas valve station along the TransCanada pipeline, and the proposed termination point located at the proposed Greenstone Mine Processing Facility south of TransCanada Highway 11 between Lahtis Road and Hardrock Road.

To identify routing constraints in the area, the western and eastern boundaries of the Study Area were defined by the Highway 584 corridor, the town of Geraldton, and the lands encompassing the proposed Greenstone Mine.

The Study Area is shown in Figure A1, Appendix A.

2.2.2 Gather Information on Existing Conditions in the Study Area

Relevant environmental and socio-economic background data of the Study Area was gathered. Due to the more remote location of the Project, available published desktop information was limited for some environmental features and conditions. Specific information requests were made to several agencies to assist in identifying environmental features and constraints, the potential presence of Species at Risk (SAR) and their habitat, and eventually in predicting effects and potential impacts and developing mitigation and protective measures.

2.3 STEP 2: DEVELOP ROUTE PARAMETERS

2.3.1 Routing Objectives

The overarching objective in the route evaluation and selection process is to select a route that presents the least potential for adverse environmental and socio-economic impacts. The following principles support that objective:

Routes should follow a reasonably direct path between end-points to reduce length; in general, a shorter route will help eliminate or minimize the extent of any potential environmental and socio-economic impacts.

Routes should avoid sensitive environmental and socio-economic features wherever practicable; where such features cannot be avoided, routes should be located to minimize potential impacts.

Corridors containing existing linear infrastructure should be used or paralleled to the greatest extent feasible to minimize impacts on previously undisturbed environmental and socio-economic features and to limit constraints on future land development.

Where new easements are required, existing lot and property lines should be followed to the extent feasible to avoid adding constraints onto parcels of land.

2.3.2 Environmental and Socio-Economic Opportunities and Constraints

Chapter 4 of the OEB *Environmental Guidelines* (2016), “Route or Site Selection”, outlines the environmental and socio-economic features that should be considered during route evaluation.

A geographical information system (GIS) based environmental inventory was compiled to identify existing features in the Study Area. Once the inventory was complete, Stantec classified the features as either pipeline routing constraints or opportunities. Pipeline routing opportunities are existing features which provide a potential location for the alignment of a pipeline to avoid or minimize unnecessary environmental or socio-economic impact. Examples of opportunities considered during this stage included road easements, pipeline easements, hydroelectric corridors, and lot lines.

Pipeline routing constraints are existing features that meet the following criteria:

- site-specific mitigation measures would be required to reduce potential effects.
- the feature has been selected or designated for protection.
- the feature has been recognized through local, regional, provincial, or federal policy, plan, or statute, or is otherwise valued as an environmental or socio-economic resource.

Examples of constraints considered at this stage included wetland complexes, woodlots, settlement areas, residences, and watercourses.

Existing features were identified using published literature, maps and digital data, and discussions with agencies and the Municipality of Greenstone, and confirmed through field visits. The location and extent of pipeline constraints and opportunities and socio-economic and environmental features are outlined in Section 4 of this ER and illustrated in Figure C1, C2, C3, C4, and C5, Appendix C.

2.4 STEP 3: EVALUATION AND COMPARISON OF ROUTE OPTIONS AND IDENTIFICATION OF A PRELIMINARY PREFERRED ROUTE

2.4.1 Identifying Routing Options

In the early stages of the planning process, Enbridge Gas held meetings with personnel from the Municipality of Greenstone to introduce the Project and gather feedback on routing opportunities and constraints in the Fall of 2015 and Spring of 2016. During meetings, Enbridge Gas and the Municipality of Greenstone identified and discussed constraints pertaining to the constructability and maintenance of pipeline on lands east and west of Geraldton containing wetlands. Construction in these areas would require the removal of a significant number of trees and potential impacts to wetlands, watercourses, and other wildlife habitats.

Through a review of aerial photography interpretation, analysis of available background information, on-site review of existing corridors, and in consideration of environmental and socio-economic constraints and opportunities, Stantec determined that locating the proposed pipeline in existing road allowances, where reasonable, would be environmentally preferable. Previous routing experience of Stantec personnel suggested that routing this pipeline in any other location, such as establishing a new corridor or expanding an existing corridor, would result in greater environmental and socio-economic impacts, including the removal of hundreds of trees on the sides of the existing trail from the surrounding boreal forest and removing/disturbing many hectares of potential wildlife habitat, and wetlands.

Based on the determination to site the proposed pipeline in existing road allowances, the pipeline corridor was divided into three sections, see Figure A2, Appendix A. No evaluation was conducted in sections 1 or 3 as the main road allowances were determined to be the only environmentally acceptable options. Stantec identified three potential alternative routes in section 2 for evaluation of the routing objectives. The following is a description of the sections and the alternatives:

Section 1 – the northern portion of the route commences at the existing Enbridge Gas valve site and extends southward to the northern limit of the town of Geraldton. This section is located entirely in the road allowance of Highway 584 providing a direct route and minimizing the removal/disturbance of trees, wetlands, and wildlife habitat.

No other environmentally acceptable routes were identified for the northern section.

Section 2 - this section is situated in the middle portion of the Study Area starting at the northern limit of the town of Geraldton and ending at the southern limit of town. Three alternative routes were identified in Section 2; alternatives 2A, 2B, and 2C, see Figure A2, Appendix A.

- **Alternative 2A** – this alternative is located entirely in existing road allowances, mainly Main Street.
- **Alternative 2B** – this alternative is located entirely in existing road allowances, mainly 1st Street East.
- **Alternative 2C** – this route avoids the Geraldton urban area by routing on the east side of town along an existing narrow fire cut.

Section 3 – this section is situated in the southern portion of the route starting at the southern limit of the town of Geraldton and south of Highway 11. This alternative is located in the existing road allowance and rural area.

No other environmentally acceptable alternative routes were identified for Section 3.

Evaluation of Alternative Routes

The alternative routes in Section 2 were made subject to comparative route evaluation. The goal of the comparative route evaluation was to determine the potential environmental and socio-economic effects of each alternative route segment to facilitate the identification of a Preliminary Preferred Route.

A further qualitative evaluation of the quantitative data is provided below.

- **Alternative 2A** – although this alternative is located entirely in existing road allowances, including Main Street, providing a direct route through Geraldton and minimizing the removal/disturbance of trees, wetlands, and wildlife habitat compared to routes that by-pass the town, it may have considerable impact on vehicular movement, residents, and businesses during construction.
- **Alternative 2B** – located entirely in existing road allowances, mostly 1st Street East, providing a direct route through Geraldton and, compared to routes by-passing the town, minimizing the removal/disturbance of trees, wetlands, and wildlife habitat. Although this route is slightly longer than Alternative 2A, from a socio-economic aspect, it would reduce impacts to traffic and businesses on Main Street during construction.
- **Alternative 2C** – This segment was included as part of the process to address an issue raised by the Municipality of Greenstone relating to safety concerns associated with operating a natural gas pipeline through the developed portion of the town of Geraldton. This segment is not sited in existing road allowances, it utilizes an existing narrow fire cut corridor to the east of Geraldton. It was identified as having the least potential adverse impacts to the residents of Geraldton.
- By utilizing an existing corridor, **Alternative 2C** reduces the removal/disturbance of trees, wetlands and potential wildlife habitat compared to any other potential route that avoided the developed portions of Geraldton. Compared to routing through Geraldton, this alternative would minimize impacts to residents and businesses, but poses issues related to pipeline constructability and maintenance due to its location in a wetland area, and would require significantly more removal/disturbance of trees, wetlands, and potential wildlife habitat.

2.4.2 Identification of the Preliminary Preferred Route

In evaluating the alternative routes, the combination of **Section 1**, **Alternative 2B,** and **Section 3** was determined to be the Preliminary Preferred Route as it is the option which satisfies the overarching objectives by:

- following a reasonably direct route between endpoints, while avoiding components of the Greenstone Mine Project
- paralleling existing linear infrastructure (Highway 584 and Old Arena Road) where possible
- utilizing existing road allowances along 1st Street East through the town of Geraldton
- following access roads, corridors, and lot lines where possible in the proposed location of the Greenstone Mine Project
- reducing impacts to residents and businesses
- minimizing disturbance to undeveloped, natural areas, such as the surrounding forest, watercourses, wetlands, and potential wildlife habitat.

The Preliminary Preferred Route is shown on Figure A3, Appendix A.

2.5 STEP 4: SOLICIT INPUT ON THE PRELIMINARY PREFERRED ROUTE AND ROUTE OPTIONS

A consultation and engagement program was implemented to receive feedback on the route selection process and Preliminary Preferred Route (see Section 3). Feedback received is outlined in Section 3.5. Through this consultation and engagement program, one member of the public made a request to consider an alternative route. That request was to review an alternative route around the town of Geraldton. Alternative routes around Geraldton were evaluated as part of the routing selection process but were not deemed to be preferred (see Section 2).

During a meeting between the Municipality of Geraldton and Union Gas, now Enbridge Gas, on August 24th, 2015, a concern was raised regarding the safety of routing the pipeline through Geraldton. Minutes from the meeting are presented in Appendix B9. Municipal staff demonstrated support of the Preliminary Preferred Route and agreed that siting the pipeline along 1st Street East, as opposed to Main Street, was preferred to reduce potential impacts to local businesses.

Based on feedback received, no issues or concerns were raised that would change the Preliminary Preferred Route.

2.6 STEP 5: STUDY RE-COMMENCEMENT AND CONFIRMATION THE PREFERRED ROUTE

Three years following the commencement of the environmental study, Enbridge Gas proposed minor routing modifications to the Project near the termination point south of Highway 11. Whereas the Preliminary Preferred Route terminated at the Greenstone Mine Processing Facility, south of Highway 11, routing modifications resulted in the decision to adjust the termination point to south of TransCanada Highway 11 between Lahtis Road and Hardrock Road. This new endpoint has a greater impact on natural habitat compared to the previous route; however, it would serve to limit impacts to road users and reduce the overall Project footprint. Stantec has reviewed the modified route and determined that it is environmentally acceptable. As no feedback was received that would cause a change, the modified route was confirmed as the preferred route, see Figure A4, Appendix A. The preferred route is currently illustrated in a general location. Enbridge Gas will undertake detailed design to determine the exact location of the running line, permanent easement, temporary land use requirements, and road/watercourse crossing methods. Detailed design will also be influenced by supplemental studies (including environmental studies) and site-specific requests from landowners and agencies. In general, this micro-siting exercise will seek to avoid sensitive natural features to the extent practicable.

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

- Identify interested and potentially affected parties early in the process
- Inform and educate interested parties about the nature of the Project, potential impacts, proposed mitigation measures, and how to participate in the consultation and engagement program and 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 during the construction and operation phase of the Project

3.2 IDENTIFYING INTERESTED AND POTENTIALLY AFFECTED PARTIES

As part of the consultation and engagement process, Indigenous communities and stakeholder Contact Lists (including Agency, Municipal, and Landowner Contact Lists) were developed, see Appendix B1.

3.2.1 Identifying Indigenous Communities

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

Indigenous engagement commenced with the submission of a Project description to the Ministry of Energy, Northern Development and Mines (MENDM) on October 29, 2019. This submission to the MENDM 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 MENDM and enumerated in the Letter of Delegation dated January 30, 2020.

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

- Ginoogaming First Nation
- Aroland First Nation
- Red Sky Independent Nation
- Greenstone Metis Council
- Long Lake 58 First Nation

In additional to the communities identified above, Enbridge Gas has also undergone consultation and engagement with the Animbiigoo Zaagi'igan Anishinaabek First Nation and the Biinjitiwaabik Zaaging Anishinaabek communities.

The Indigenous Contact List developed for the Project included the communities listed above.

3.2.2 Identifying Interested and Potentially Affected Parties

In creating the Project's Contact Lists, 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 Agency and Municipal Contact Lists and public outreach:

- Federal and provincial agencies and authorities, including the SNC and members of the OPCC
- Municipal personnel
- Special interest groups
- Directly affected and adjacent landowners in the Geraldton postal code (P0T 1M0)

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 and Re-Commencement. The original Contact Lists are provided in Appendix B1. The Contacts Lists generated following the proposed routing modifications and Notice of Study Re-Commencement are provided in Appendix B2.

3.3 COMMUNICATION METHODS

3.3.1 Phase II: Consultation and Engagement on the Route Options

3.3.1.1 Newspaper Notice and Television Advertisement

A Notice of Project Commencement and Open House was published on April 6, 2016 in the Times Star newspaper and broadcasted on the local Astrocom television station. The newspaper notice was published in both English and Canadian-French and described the Project, identified the Preliminary Preferred Route, provided a map, noted the format, time, and location of the Open House, and listed Project contact information.

A copy of the newspaper notice and television advertisement is in Appendix B3.

3.3.1.2 Letters

Letters were sent to the 810 addresses with the P0T 1M0 postal code by mail on April 1, 2016 and to those on the Agency and Indigenous communities Contact Lists on April 4, 2016. The letters informed contacts of the commencement of the Project and the Open House, the environmental study process, and the Preliminary Preferred Route. Letters sent to agencies solicited information on planning principles or guidelines that may affect the Project, background environmental and socio-economic information, and other developments proposed in the area. Letters sent to Indigenous communities requested information on adverse impacts that the Project may have on constitutionally protected Aboriginal or treaty rights and measures for mitigating those adverse impacts. Appended to the letters was a copy of the newspaper notice.

Generic copies of the three letters are in Appendix B4.

3.3.1.3 Display Boards, Newsletters, and Exit Questionnaires

Display boards were developed for the Open House. The display boards provided a description of the Project, outlined the Study Area, and provided information on the environmental study, Project approvals, existing conditions, Project construction, and next steps.

A newsletter was developed for distribution at the Open House to summarize the content provided on display boards. An exit questionnaire was also provided to Open House attendees that requested feedback on potential impacts, the Preliminary Preferred Route, and the content of the Open House.

The newsletter and exit questionnaire were available to attendees in both English and Canadian-French.

Copies of the display boards, newsletter, and exit questionnaire are in Appendix B5.

3.3.2 Phase IV: Routing Modification and Study Re-Commencement

3.3.2.1 Newspaper Notice

A Notice of Study Re-Commencement was published on July 14, 2021 in the Times Star newspaper. The notice outlined the revised Project footprint and updated planning and construction timeline. The notice was published in both English and Canadian-French and re-described the Project, identified the new Preliminary Preferred Route, provided a map, and listed Project contact information.

A copy of the Notice of Study Re-Commencement newspaper advertisement is in Appendix B6.

3.3.2.2 Television Advertisement

A Notice of Study Re-Commencement was also advertised on the local Astrocom television station through July 14, 2021 to July 28, 2021. The notice provided high-level details on the study re-commencement, routing modification, and Project contact information.

A copy of the text advertised on the local television station is in Appendix B6.

3.3.2.3 Letters

Letters detailing the study re-commencement and routing modifications were emailed or mailed to those identified on the Agency and Municipal Contact Lists on July 9, 2021, Indigenous communities identified by the MENDM on July 14, 2021, and to 810 addresses with the P0T 1M0 postal code by mail on July 15, 2021. The Animbiigoo Zaagi'igan Anishinaabek First Nation and the Biinjitiwaabik Zaaging Anishinaabek communities were provided letters on July 28, 2021.

Generic copies of the three letters are in Appendix B7.

3.4 CONSULTATION AND ENGAGEMENT EVENTS

3.4.1 Meetings

A meeting regarding the Project, held on August 24, 2015, occurred between Union Gas, now Enbridge Gas, and the Municipality of Greenstone. Meetings with Indigenous communities and directly impacted landowners and the municipality will continue as the Project progresses towards detailed design and construction.

3.4.2 Project Open House

A Project Open House was held on April 20, 2016 from 5:00 p.m. to 8:00 p.m. at the Royal Canadian Legion, Robert Frost Branch 133 in Geraldton.

The purpose of the Open House was to:

- Inform the community about the Project
- Present the Preliminary Preferred Route
- Provide Indigenous community members with the opportunity to learn about the Project and consider potential impacts
- Engage regulatory authorities and the public regarding the Preliminary Preferred Route, Alternate Routes, and potential impacts
- Provide an opportunity for participants and any affected landowners to review the proposed Project, and to ask questions and provide comments to representatives from Enbridge Gas and Stantec

At the Open House, Enbridge Gas and Stantec representatives were present to provide details on the Project, answer questions, and receive comments. Display boards and newsletters were provided to inform attendees about the Project, and exit questionnaires were provided to encourage feedback. Two exit questionnaires were returned to Stantec.

The Open House registered 26 attendees: 3 Greenstone Municipal Staff, 1 representative from the Ontario Ministry of Northern Development and Mines, 17 members of the public, 3 Greenstone Mine Staff, a reporter from the Times Star newspaper, and a local Enbridge Gas employee. Input on the Project provided at the Open House was recorded.

3.5 INPUT RECEIVED

The consultation and engagement program allowed Indigenous communities as well as interested or potentially affected parties to provide input on the Project. Input was evaluated and integrated into the Project. The following sections summarize the key input received during consultation.

A comment-response summary table, and copies of all written correspondence and responses, are provided in Appendix B8.

3.5.1 Indigenous Input

A comprehensive Indigenous Consultation Summary Report will be submitted as part of the LTC Application and will provide additional details on engagement activities for this Project.

3.5.2 Agency Input

The following comments were received from agencies at the time of writing this ER. Comments were:

- The Ministry of Energy, Northern Development and Mines (MENDM) provided a letter noting that the Project may have the potential to affect Indigenous communities, and provided a list of potentially affected communities to consult with.
- The Minister of Heritage, Sport, Tourism and Culture Industries (MHSTCI) provided a letter noting their general requirements for the Project.

- The Ministry of Transportation (MTO) provided a letter outlining the permitting requirements that may apply to the Project:
  - Entrance permit
  - Building and Land Use permit
  - Encroachment permit
- The Ministry of Environment, Conservation and Parks (MECP), formerly the MOECC, advised that the Environmental Report should address:
  - Water quality and quantity
  - Sewage and Water Supply Systems
  - Waste Management
  - Air Quality
  - Noise and Vibration
  - Land Use
- Transport Canada (TC) responded noting that proponents are asked to self-assess if their project will interact with a federal property and/or waterway, or if it will require approval and/or authorization under any Acts administered by TC.
- Environment and Climate Change Canada (ECCC) requested information to determine ECCC's interest in the Project.

A comment-response summary table and copies of all written correspondence are in Appendix B8.

3.5.3 Municipal Input

Two (2) communications were received from the Municipality at the time of writing this ER. Comments were:

- Councilor Andre Blanchard of the Municipality of Greenstone confirmed he had received the Notice of Commencement.
- During the August 24, 2015 meeting held with the Municipality, representatives identified safety, routing, and permit requirements and expressed concern regarding the development of a pipeline in the areas to the east and west of Geraldton characterized by wetlands. The Minutes from the meeting are presented in Appendix B9.

3.5.4 Public Input

Two (2) Open House exit questionnaires were returned to Stantec. Both categorized themselves as interested citizens. One questionnaire stated that the Project, as displayed, would have no impact on the respondent. It was expressed that the "in town" portion of the route was important to consider during the environmental study and did not agree that the Preliminary Preferred Route is the most appropriate option. The other questionnaire was supportive of the Project and Preliminary Preferred Route. It was

highlighted in the questionnaire response, that the Union Gas, now Enbridge Gas, representative was helpful answering the participants questions on the Project. To date, no other comments have been received.

A copy of the two (2) questionnaires returned to Stantec are in Appendix B8.

3.5.5 Refinements Based on Input

At each stage of the consultation and engagement program, input was reviewed and incorporated into the environmental study process. Responses were provided, as applicable, to questions and comments received.

Enbridge Gas has committed to on-going consultation and engagement with Indigenous communities and engagement with interested parties through detailed design and construction and will continue to respond to concerns throughout the life of the Project. Input was reviewed and considered during the identification of potential impacts and determination of mitigation and protective measures.

In the middle section of the route, Union Gas, now Enbridge Gas, agreed to site the preferred route down 1st Street East for the portion south of the abandoned railway tracks to Benner Avenue as this siting was the preferred location of Geraldton municipal staff. The preferred pipeline route is currently illustrated in a general location; Enbridge Gas will undertake further detailed design to determine the exact location of the running line, permanent easement, and temporary land use requirements, and crossing methods. Detailed design will be influenced by supplemental studies (including environmental field surveys) and site-specific requests from landowners and agencies to facilitate detailed design of the preferred route. The detailed design exercise will seek to avoid sensitive natural and socio-economic features to the extent practicable. Enbridge Gas will continue discussions with the Municipality of Greenstone during detailed design to come to an agreement on design details.

The pipeline will be designed in accordance with Ontario pipeline safety legislation and the national pipeline standards published by the Technical Standards and Safety Authority and the Canadian Standards Association. Enbridge Gas strives for the highest standards of pipeline safety and will meet or exceed all standards and regulations with respect to the design and operation of this pipeline through all stages of pipeline construction, including design, construction, and operation of the pipeline.

It is not uncommon for residential homes to be located adjacent to natural gas pipelines. The proposed pipeline will be designed to meet or exceed all safety regulations and codes. In addition, Enbridge Gas has a rigorous safety and integrity program so that the pipeline is constructed and maintained to operate safely.

The Enbridge Gas lands relation agents will work with landowners to address concerns they may have during construction, such as property access and site safety.

4.0 EXISTING CONDITIONS

4.1 PHYSICAL ENVIRONMENT

4.1.1 Bedrock and Drift Thickness

Occurrences of bedrock outcropping are common on the Project site due to the shallow drift being common in the Study Area; however, due to their relatively small size, they have not been mapped into separate outcropping polygons. Shallow drift and bedrock outcrops can be anticipated to be found throughout the preferred route.

4.1.2 Physiography and Surficial Geology

Surficial geology refers to the substrate materials above bedrock, or the earthen materials deposited during the quaternary period which is when the most recent significant land-shaping glacial events occurred. The range of soils in the proposed pipeline corridor is typical of the boreal forest region overlying the pre-Cambrian shield in Northern Ontario. The soils in the Study Area were deposited after the last glaciation and consist of large areas of shallow glacial drift interspersed by areas of deep glaciofluvial deposits, occasional local glaciolacustrine deposits (ponding), deeper ground moraines (till), and large areas of poorly drained depressions with organic soils. Disturbed and developed areas in the Study Area are referred to as Anthropogenic.

Compared to most areas in the pre-Cambrian shield region, some of the soils in the Study Area have a high percentage of calcareous (carbonate rich) substrates. Carbonates are commonly found in the Study Area in all surficial deposits largely because this area is less than 100 km southwest of the edge of the James Bay Lowlands which is an area of carbonate rich lacustrine sediments overlying limestone and dolomite bedrock.

Surficial geology is shown on Figure C1, Appendix C

4.1.3 Groundwater

A review of the water well logs in the Study Area revealed that one well was in 100 m of the preferred route. The details of that well are shown in Table 4.1.

Table 4.1: Water Wells in 100 m of the Preferred Route

Well ID	Date Complete	Well Depth (m)	Bedrock Depth (m)	Static Water Level (m)
6100055	05/06/1963	11.3	0	0.9

The water well record (WWR), prepared in 1963, reports the well as having bedrock at the surface and the static level is reported as 0.9 m. The water well is in an area mapped as muck soil and is located very close to historic mine tailings. The WWR indicates that the well was used as a residential well, though there is no longer a residence located near the mapped well.

During construction, if the excavation of the pipe trench encounters a high-water table or if an excessive rain event occurs, dewatering of the trench and/or work site may be necessary.

The water well is located directly east of the Old Area Road and Michael Power Boulevard intersection.

4.1.4 Hydrostatic Testing

To conduct the hydrostatic test, all new pipe sections will be filled with water and pressurized to the specified hydrostatic testing procedure to ensure that the construction is sound. The preferred route crosses several watercourses including Barton Bay. Water could potentially be drawn from a natural source under a Permit to Take Water (PTTW) which would be issued from the MECP. Alternatively, the preferred route passes the municipal water plant located on Highway 584 north of Geraldton and presumably fire hydrants. A domestic water source could potentially be used as a source for hydrostatic test water as well.

4.1.5 Soil Classification and Soil Capability

Much of the lands in Northern Ontario do not have the soils classified to the detail of the County levels soil surveys published for southern Ontario. To create a 100 m wide soils inventory map for the preferred route, published Forest Resource Inventory (FRI) mapping created by the Ministry of Natural Resources and Forestry (MNRF 2014a) was used as a base for a desktop soils map. The published Kapuskasing soils map published by Agriculture and Agri-food Canada (AAFC 1976) was correlated with the FRI information to establish a potential soil series name for each polygon type. This method of adopting Soil Series was successful at creating a desktop soils map to be ground verified along the preferred route.

In the field, the soils along the preferred route were surveyed to define the genesis characteristics and to classify them per the Canadian System of Soil Classification (Soil Classification Working Group 1998). The soil types found in the field were correlated to those from the Kapuskasing soils map. AAFC states about their map that “This map is of a reconnaissance nature. It is suitable for obtaining a general overview of the location and extent of major soil types.” As discussed in Section 4.2.1, occurrences of bedrock outcropping are common on the Project site; however, due to their relatively small size, they have not been mapped into separate outcropping polygons. Shallow soils and bedrock outcrops can be anticipated to be found throughout the preferred route.

Along the preferred route corridor, three soil series were mapped: Dunbar, Scotia, and Muck. The Dunbar soil series, covering about 7 per cent of the Study Area, is from the Gleysol Soil Order. Soils of the Gleysolic order have properties that indicate prolonged periods of intermittent or continuous saturation with water and reducing conditions during their genesis (AAFC 1976). These soils are poorly drained. The Scotia Soil Series, covering about 34 per cent of the Study Area, is from the Brunisol Soil Order. Soils of the Brunisolic order can be characteristic of soils formed under forests and having brownish coloured B horizons (AAFC 1976). These soils are well drained. The Muck designation, covering about 9 per cent of the Study Area, represents an organic (muck) soil. Soils of the Organic order contain 30 per cent or more organic matter by weight. These soils are typically found in an environment that is saturated with water for prolonged periods. Organics include soils commonly found in peat, muck, bog, and fen environments. The soil classifications are shown on Figure C2, Appendix C.

On the soils map, two other non-Soil Series designations are found; Developed Land and Water. The developed lands, covering about 47 per cent of the Study Area, are not described on the soils map as they are not considered to be natural, undisturbed lands. The lands covered with surface water, covering about 3 per cent of the Study Area, are shown and do not have a soil series associated with them. Since the preferred route is almost entirely in existing road allowances, the management and rehabilitation of these areas will not differ significantly based on the differentiation of the Soil Series.

Descriptions of the adopted soil series follow:

- **Scotia (SCO)** – Eluviated Dystric Brunisol developed on medium-textured morainal (till) deposits, typically well-drained, some surface stoniness, and often thin over bedrock;
- **Dunbar (DUN)** – Orthic Humic Gleysol developed on medium-textured morainal (till) deposits, typically poorly-drained, some surface stoniness, and often thin over bedrock;
- **Miscellaneous Organics (Muck, ZMK) –** Organic soils at varying levels of decomposition, very poorly drained, some sites are thin over bedrock, till, glaciolacustrine or glaciofluvial;

The occurrence of the soil types along the preferred route are shown in **Table 4.2**.

Table 4.2: Occurrence of Soil Types

Soil Type	Total Polygon Area (ha)	Percentage of Total
Dunbar	18.1	6.9
Scotia	90.5	34.3
Muck	23.3	8.8
Developed Land	124.1	47.2
Water	7.5	2.8
TOTAL	263.5	100

Due to the northern climate, general shallow nature of the soils and the siting in a disturbed corridor, the soils along the preferred route are considered to have no agricultural capability.

4.1.6 Extractive Resources

As discussed in Section 1.2, the Project is designed to provide natural gas to a proposed gold mine. The area of the mine proposal has been the site of a few gold mines over the past 70 years. Locating the pipeline in existing road allowances and corridors will help avoid the sterilization of extractive resources.

One active aggregate pit is known in the Study Area, Mosher Pit, presumably used as a source of sand for local construction projects. Construction and operation of the Project will not sterilize any mineral resources or aggregate deposits.

Mosher Pit is shown on Figure C3, Appendix C.

4.1.7 Natural Hazards

Natural hazards are elements of the physical environment that have the potential to affect a Project in an adverse manner. Potential natural hazards along the proposed pipeline route are limited. Natural hazards that may occur are seismic activity and flooding. During construction and operation of the Project, flooding may occur due to rapid snowmelt or inundation of Kenogamisis Lake, located 3.8 km to the east, and watercourses within the study area.

The proposed pipeline route lies in the Northeastern Ontario Seismic Zone (Natural Resources Canada 2016). This zone has a very low level of seismic activity. From 1970 to 1999, on average only 1 or 2 magnitude 2.5 or greater earthquakes have been recorded in this large area. Two magnitude 5 earthquakes (1905, northern Michigan, and 1928, northwest of Kapuskasing) have occurred in this region (Natural Resources Canada, NRC 2016).

4.2 BIOPHYSICAL FEATURES

4.2.1 Aquatic Features and Fish Habitat

Existing Conditions

Overview of Watercourse Crossings

Waterbodies in the Study Area are comprised of both lentic and lotic systems that provide cool water habitat (MNFR 2011). Key recreational and sustenance species in the area include Walleye (*Sander vitreus*), Lake Whitefish (*Coregonus clupeaformis*), Burbot (*Lota lota*), Yellow Perch (*Perca flavescens*) and Northern Pike (*Esox lucius*) (MNRF 2014b). The Study Area is also licensed for baitfish collection and supports a variety of small-bodied fish (Table 4.3). Other than bait fish collection, there are no commercial fisheries in the area. Residents reportedly angle in Kenogamisis Lake and snare Walleye in the surrounding lakes and larger rivers beyond the Study Area. There is no documentation of any federally or provincially listed aquatic species at risk in the Study Area, nor are any anticipated to occur there.

The Study Area is within the Kenogamisis River and Burrows River watersheds, and roughly parallels Highway 584 through the town of Geraldton; with Annette and Marie Lakes located near the northern extent and Barton Bay (Kenogamisis Lake) near the southern extent (Figure C4, Appendix C).Watercourses within the study area have relatively small drainage areas, with Hardrock Creek being most notable watercourse, draining approximately 7 km^2 upstream of the proposed pipeline crossing. In the northern part of the Study Area, Reesor Creek drains an area of approximately 4 km^2 upstream of the proposed pipeline crossing.

Table 4.3: Fish Species Identified at Watercourse Crossings

Common Name (Scientific Name)	Cecile Lake	Hardrock Creek	Kenogamisis Lake	WC-B	WC-X
Blackchin Shiner (*Notropis heterodon*)		√			
Blacknose Shiner (*Notropis heterolepis*)			√		
Brook Stickleback (*Culaea inconstans*)		√	√	√	
Burbot (*Lota lota*)			√		
Central Mudminnow (*Umbra limi*)		√			
Cisco (*Coregonus artedi*)			√		
Fathead Minnow (*Pimephales promelas*)				√	
Finescale Dace (*Chrosomus neogaeus*)				√	
Johnny Darter (*Etheostoma nigrum*)			√		
Lake Chub (Couesius plumbeus)			√		
Lake Whitefish (*Coregonus clupeaformis*)			√		
Log-perch (Percina caprodes)			√		
Northern Pike (Esox lucius)	√		√		
Northern Redbelly Dace x Finescale Dace (C. eos x C. neogaeus)				√	
Northern Pearl Dace (Margariscus nachtriebi)				√	
Shorthead Redhorse (Moxostoma macrolepidotum)			√		
Spottail Shiner (Notropis hudsonius)			√		
Trout-perch (Percopsis omiscomaycus)			√		
Walleye (Sander vitreus)			√		
White Sucker (Catostomus commersonii)			√		
Yellow Perch (Perca flavescens)			√		
YOY Cyprinid (Cyprinid Sp.)					
Number of Documented Species	**1**	**3**	**15**	**5**	**0**

The following assessment of fish and fish habitat is based on pre-existing fisheries information for the Study Area. Information on fish communities in Kenogamisis Lake and Barton Bay are based on a Broad-scale Netting Program completed by the MNRF in 2013 (MNRF 2013) and by studies completed by Stantec in 2013, 2014 (Stantec 2015) and 2015 (Stantec 2016). For all other watercourses, fish habitat descriptions are based on fisheries inventories and fish habitat assessments completed by Stantec in Fall 2014. Fisheries assessments completed by Stantec in the Study Area to date have been completed as a part of the baseline environmental program for the proposed Greenstone Mine Project.

Fish habitat assessments completed by Stantec included the assessment and documentation of

- in-stream cover
- substrate characteristics
- riparian vegetation
- aquatic vegetation
- stream dimensions including bank full width, wetted width, and maximum pool depth
- stream gradient
- stream morphology, and
- in situ temperature, dissolved oxygen, pH, and conductivity.

Stantec has completed fish community assessments throughout the Greenstone Area (Figure C4, Appendix C).

Details on fisheries assessment methods are provided in the reports entitled *Environmental Baseline Data Report – Hardrock Project: Fish and Fish Habitat* (Stantec 2015) and *Supplemental 2015 Fish and Fish Habitat Data Report – Hardrock Project* (Stantec 2016).

Collectively, five watercourse crossings were identified along the length of the preferred route. Enbridge has stated that all watercourses will be crossed via HDD. The associated watercourse crossings are shown on Figure C4, Appendix C, and are summarized below:

<u>Watercourse X (WC-X)</u>

Watercourse X was investigated where it crosses Highway 584, at the proposed pipeline crossing between Yvonne Lake and Cecile Lake. The watercourse is wide and shallow with abundant aquatic and overhanging terrestrial vegetation providing in-stream cover. The natural channel morphology appears to have been altered historically and the channel may have been dredged. Highway 584 crosses this watercourse along the western shoreline of Cecile Lake. Deep pool habitat and large woody debris provide in-stream cover. Substrates were comprised almost entirely of fine silty detritus, except for a small amount of sand and gravel where roadbed material had eroded into the watercourse.

During the Fall 2014 field investigations, 12 minnow traps were set near the Highway 584 crossing. No fish were captured during the sampling period.

Cecile Lake

Assessment efforts on Cecile Lake focused on the western shoreline of the lake, near the proposed pipeline route. Cecile Lake is the drinking water source for the town of Geraldton; therefore, the fisheries assessment survey was scoped to observations along the shoreline to avoid the use of an outboard motor on the lake. The shoreline is dominated by a large bedrock outcrop and associated rock and cobble material. In the west end of the lake, sand and detritus substrates were present in the littoral zone. Aquatic vegetation was sparse, although some Vallisneria and Milfoil was observed. Riparian vegetation was comprised of Grey Alder, Carex, various grasses, Cattails, and Sweet Gale.

Adjacent lands are predominantly natural forest consisting of Tamarac, White Spruce, Alder, and Trembling Aspen. Highway 584 bounds the west side of Cecile Lake. A water pumping station is also present near the southwest side of the lake.

During the Fall 2014 field investigations, twelve minnow traps were set around the west shoreline area. Only one Northern Pike was captured.

Hardrock Creek

Hardrock Creek originates north of the town of Geraldton, and flows south skirting the west side of town, before turning east and flowing through town and southeast to join with Barton Bay. To describe fish habitat, the Creek was delineated into four reaches of similar habitat. The lowest, or furthest downstream reach is characterized by a wide, slow flowing channel dominated by cattail marsh along its banks. Substrates in this reach are primarily a mixture of organic muck and detritus. Further upstream, the second reach is more confined and provides a greater diversity of habitat, with riffle, run and pool sequences. A long section of this reach on the west side of Geraldton was channelized at some time in the past. There is abundant in-stream cover in this reach, provided by a combination of undercut banks, deep pool, boulder, cobble, organic debris, in-stream aquatic vegetation and overhanging vegetation. The channel narrows in the third reach, just downstream of a railroad crossing. The third reach includes two large on-line ponds. The channel between these ponds flows through wetland habitat dominated by hydrophilic grasses and shrubs. The fourth reach is located upstream of the ponds, where the channel is less well defined and flows through low-lying black spruce forest. The proposed pipeline will cross under Hardrock Creek downstream of the first online pond, at Highway 584, and again in the town of Geraldton in the lower reach where it is crossed by 1st Street East (Figure C4, Appendix C).

During the Fall 2014 field surveys, three sampling events were conducted, utilizing a backpack electrofisher on two occasions and six minnow traps on the other. Fish were captured in only one of the three sampling events, with a total of 14 individuals representing three species including Central Mudminnow (*Umbra limi*), Blackchin Shiner (*Notropis heterodon*) and Brook Stickleback (*Culaea inconstans*), all of which are common in Northern Ontario. All fish were captured downstream of the railroad (Figure C4, Appendix C).

Kenogamisis Lake – Barton Bay

Kenogamisis Lake is a large (4,200 ha), generally shallow (mean depth = 1.9 m), irregularly shaped lake, positioned southwest to northeast on the landscape. The Kenogamisis River is the largest tributary to

Kenogamisis Lake and flows in at the southwest end of the lake. The outflow is at the northeastern end of the lake, at the Kenogamisis Lake Dam, which was constructed in 1962. The Kenogamisis Lake dam does not produce hydroelectricity but is used to manage water levels in Kenogamisis Lake and to control water flow to hydroelectric facilities further downstream. Normal operational water levels are managed between 329.32 and 329.70 m above MSL.

Small islands are common in the central and north sections of the lake. These islands provide a variety of shoreline and substrate habitats that contribute to the overall habitat diversity in the lake. There are many shallow bays and inlets that have abundant aquatic vegetation, providing spawning, rearing, and forage habitat for a variety of fish species. Sandy points and bars in the lake support large areas of emergent aquatic vegetation. Barton Bay, at the proposed crossing location is relatively shallow, with abundant emergent cattails along the north shoreline. There is some current under the bridge at Highway 584 and the maximum depth at the crossing is roughly 3 m.

Substrates in shallow, near-shore areas are typically comprised of a mixture of sand, gravel, and cobble. Some rocky shoals are present along shoreline points and mid-lake. In deeper areas of the lake (>2.5 m), substrate is depositional, comprised of a dark, fine organic muck.

Kenogamisis Lake exhibits a cool water thermal regime (MNRF 2011). Fish and fish habitat in Kenogamisis Lake are influenced by historical anthropogenic activities in the following ways:

- Water levels in the lake are controlled by the Kenogamisis Lake Dam
- Riverine habitat is fragmented by the Kenogamisis Lake Dam
- Shoreline habitats have been influenced by historical mining activity and tailings deposition in some locations
- Water and sediment quality have been influenced by historical mining activity
- Elevated levels of contaminants, including arsenic, have been documented in the water and sediment of Kenogamisis Lake (Stantec 2015)

The proposed pipeline will cross the Barton Bay arm of Kenogamisis Lake at the existing Highway 584 crossing. A total of four sampling events were conducted in Barton Bay during Fall 2013 and Fall 2014. A hoop net was set in the Fall 2013 and various locations around Barton Bay were sampled with the electrofishing boat in the Fall 2014. No fish were captured in the hoop net set in 2013, however 119 individuals representing five species were captured in 2014. Species captured included Cisco (*Coregonus artedi*), White Sucker (*Catostomus commersonii*), Spottail Shiner (*Notropis hudsonius*), Yellow Perch (*Perca flavescens*) and Walleye (*Sander Vitreus*), all of which are common in Northern Ontario. The MNRF conducted sampling in Barton Bay in 2012 and caught Northern Pike (*Esox lucius*) in addition to the species listed above.

Watercourse B (WC-B)

Watercourse B originates on the northwest side of Mosher Lake and drains northwest into the west end of Barton Bay of Kenogamisis Lake. This area contained wetland habitat and there was no observable flow. Flow through a wooden box culvert under Old Arena Road appeared to be completely blocked,

presumably by beaver dam material (e.g., beaver chews and mud). At the time of the site visits in 2014, water levels on the east side of Old Arena Road were approximately one metre higher than on the west side of the road, creating a barrier to fish passage. Beaver activity was also apparent in this area, as dam materials (e.g., branches, mud, chews, and small logs) had been placed along Old Arena Road. Fish habitat in this area is characterized by standing water in wetlands, with abundant emergent vegetation. Mosher Lake outlets to the northeast, through a wetland area, but may also outlet through Watercourse B from time to time, depending on beaver activity. Low flow and dissolved oxygen levels may be limiting to fish use in this area during summer and winter periods.

During the Spring and Fall 2014 field surveys, three sampling events were conducted utilizing minnow traps near Old Arena Road. Numerous fish were caught at this site, on the west (downstream) side of the beaver dam and Old Arena Road. This reach may have areas of deeper water throughout the year that provide summer and winter refuge for the small-bodied fish species observed here. A total of 248 individuals representing five species were captured including Finescale Dace (*Phoxinus neogaeus*), Northern Redbelly Dace/Finescale Dace Hybrid, Fathead Minnow (*Pimephales promelas*), Northern Pearl Dace (*Margariscus nachtriebi*) and Brook Stickleback (*Culaea inconstans*), all of which are common to Northern Ontario.

4.2.2 Designated Natural Areas and Vegetation

A 120 m area of investigation around the preferred route was used as a Study Area for biological studies conducted for the proposed pipeline Project. This area was named the Project Biological Study Area (BSA). A review of background information (e.g., Land Information Ontario (LIO) mapping and the Biodiversity Explorer (MNRF 2020a) was used to identify known natural areas in the BSA. The identification of vegetation in the Project area was based on field studies completed in the BSA as well as part of the baseline environmental program for the proposed Greenstone Mine Project. The Terrestrial Ecosystems Report is provided in Appendix D. Communications with the MNRF are ongoing. Comments or requirements from the MNRF regarding the Project will be addressed appropriately.

No designated natural features were identified in the BSA through the background review. Unevaluated wetlands occur (MNRF 2020a), the significance of which has not been assessed in accordance with the Ontario Wetland Evaluation System (OWES).

The proposed Project is in the Boreal Forest Region, in Northern Ontario. Typical forest cover is a mix between deciduous and coniferous tree cover; vegetation communities are predominantly coniferous with deciduous associates. Swamp and forest communities are intertwined with lakes and rivers. Common coniferous canopy cover includes white and black spruce (*Picea glauca* and *Picea mariana*, respectively), tamarack (*Larix laricina*), balsam fir (*Abies balsamea*) and jack pine (*Pinus banksiana*). Deciduous canopy cover is predominantly white birch (*Betula papyrifera*), trembling aspen (*Populus tremuloides*) and balsam poplar (*Populus balsamifera* ssp. *balsamifera*); these species also commonly occur as canopy associates amongst conifer dominated ecosites and in mixed ecosites (Rowe 1972). The Study Area falls in Ecoregion 3W, and in EcoDistrict 3W-4 (Banton et al. 2015).

Vegetation ecosite mapping surveys confirmed that the BSA is comprised primarily of wetlands, woodlands, and anthropogenic or built-up areas (i.e., the town of Geraldton, existing roads, existing Enbridge Gas valve site, and other buildings). No rare vegetation communities were identified in the BSA. Ecological land classification cover, confirmed through the field program is provided in Figure C5, Appendix C.

4.2.3 Wildlife, Wildlife Habitat, and Species at Risk

Wildlife habitat can be 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 (MNRF 2000). Significant wildlife habitats (SWH) are grouped into four categories:

1. seasonal concentration areas
2. rare vegetation communities or specialized habitats for wildlife
3. animal movement corridors
4. habitats of species of conservation concern

Wildlife and wildlife habitat in the BSA were characterized based on the Terrestrial Baseline Reports for the proposed Greenstone Mine Project (Stantec 2015; Stantec 2016) as well as field work conducted for the pipeline BSA. Survey methods and results are provided in Appendix G. Communications with the MNRF are ongoing. Comments or requirements from the MNRF regarding the Project will be addressed appropriately.

Where habitat types are identified and described in the *Significant Wildlife Habitat Technical Guide* (SWHTG; MNRF 2000), and the *Significant Wildlife Habitat Criteria Schedules for Ecoregion 3E* (MNRF 2015) [1] consideration of the vegetation community criteria identified in these documents was used to identify wildlife habitat availability in the BSA. Field data were reviewed in consideration of the guidance provided in the Ecoregion Criteria for evaluating significance to further determine which habitats would be considered as significant wildlife habitat for the purposes of this assessment. A conservative approach was taken in the identification and assessment of wildlife habitats.

Seasonal Concentration Areas

Seasonal concentration areas are those 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 usually designated as significant wildlife habitat. Areas that support a SAR, or areas where a large proportion of the population may be lost if the habitat is destroyed are examples of seasonal concentration areas which should be designated as significant (MNRF 2000).

[1] The Study Area falls in Ecoregion 3W, and in EcoDistrict 3W-4. As MNRF has yet to prepare SWH criteria for Ecoregion 3W, the assessment of SWH in the study has applied a modified version of the Significant Wildlife Habitat Criteria Schedules for Ecoregion 3E (MNR, 2015). MNRF agreed to the general reference and application of the schedule for 3E to the Greenstone Gold Mine Project. Because of the overlap of the mine and the pipeline Project areas, for consistency the same approach used in the assessment of wildlife habitats for the mine was applied for the assessment of the proposed pipeline.

The background review and field investigations identified two confirmed seasonal concentration areas in the BSA: waterfowl stopover and staging areas and turtle wintering areas. In addition, potential habitat for moose later winter cover and bat maternity colonies are conservatively considered to be present.

Rare Vegetation Communities or Specialized Habitats for Wildlife

Rare or specialized habitats are two separate components. Rare habitats are those with vegetation communities that are considered rare in the province by MNRF. S-RANKS are rarity rankings applied to the species at the provincial level and are part of a system developed under the auspices of The Nature Conservancy. Generally, community types with S-RANKS of S1 to S3 (extremely rare to rare-uncommon in Ontario), as defined by the Natural Heritage Information Centre (NHIC) could qualify (MNRF 2020b). It is assumed that these habitats are at risk and that they are also likely to support additional wildlife species that are considered significant.

The background review and field investigations identified two confirmed seasonal concentration areas in the Study Area: turtle nesting areas (associated with wintering areas) and amphibian breeding habitat. In addition, potential habitat for waterfowl nesting and woodland raptor nesting are conservatively considered to be present.

Animal Movement Corridors

Animal movement corridors are elongated, naturally vegetated parts of the landscape used by animals to move from one habitat to another (MNRF 2000). Watercourses and vegetation ecosites associated with water (wetlands) are the primary movement corridors in 120 m of the preferred route.

Habitats of 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. Habitats of SOCC do not include habitats of endangered or threatened species; these species are addressed below.

One SOCC was confirmed in the Study Area: Canada Warbler.

Canada Warbler is ranked as S4B (apparently secure) in Ontario and is designated as a species of special concern provincially. This species is usually found in moist mixed deciduous-coniferous forests with a well-developed understory. It may also occur in shrub marshes, red maple stands, coniferous riparian woodlands, ravines and steep brushy slopes, and regenerating forests. One Canada warbler was recorded during breeding surveys. Canada Warbler and its breeding habitat occur in the Study Area.

In addition, potential habitat for three SOCC (Taiga Alpine butterfly, Eastern Wood-peewee and Common Nighthawk) is conservatively identified in the Study Area. These species were not confirmed in the Study Area during field investigations however they are known to occur in the regional area and habitat with the potential to support this species occurred in the Study Area.

Protected Species at Risk

Protected SAR include those listed as endangered or threatened by the committee on the Status of Species at Risk in Ontario (COSSARO). These species and their habitats are protected though the Ontario *Endangered Species Act* (*ESA*), 2007. Background data were collected to obtain historic records and known species occurrences of SAR near the proposed pipeline route. Field surveys were conducted to assess presence and use of habitat by SAR in the Study Area.

Species at risk confirmed through the field program included American White Pelican, Barn Swallow, Northern Myotis and Little Brown Myotis. Woodland Caribou was not recorded during field surveys; however, the preferred route occurs in the Recovery Zone for Woodland Caribou and is located primarily in the Lake Superior Uplands Linkage population range, a discontinuous distribution area between continuous populations located along the Lake Superior shoreline. The northern extent of the pipeline route crosses into the Nipigon Continuous Range (MNRF 2013). Woodland Caribou use of the area is considered unlikely due to the proximity to Highways 11 and 584, and other intensive human uses associated with the town of Geraldton.

Barn Swallow nesting was confirmed in the Study Area; one active nest was recorded in a building that occurred in the 120 m lands adjacent to the proposed pipeline location. No structures are proposed for removal because of the Project.

No American White Pelican were observed in the Study Area; however, the species was observed in Kenogamisis Lake (in Barton Bay East) and the lake is considered stopover and staging habitat for American White Pelican.

Little Brown Myotis and Northern Myotis were recorded in the Study Area. No hibernacula or maternity roosts were confirmed; however, maternity roosting habitat may occur in mature treed areas in addition to buildings and habitat with the potential to support maternity roosts occurs in the BSA.

Discussions concerning SAR will be undertaken with MECP.

4.3 SOCIO-ECONOMIC ENVIRONMENT

4.3.1 History and Description of the Area

Geraldton was incorporated as a Town in 1937 following the discovery of gold on the shores of Kenogamisis Lake in the early 1930's (Municipality of Greenstone 2006). In 1932, the Little Long Lac Gold Mine, located south of Barton Bay, became the first gold-producing mine in the Geraldton area. Soon after, the Canadian National Railway line (formerly the Canadian Northern Railway) was constructed to deliver supplies and equipment to the mine. Main Street was then constructed across Barton Bay connecting the mine and the railway. Gold production lasted until the 1990's.

In 2001, the Town of Geraldton was amalgamated into the Municipality of Greenstone, along with the Town of Longlac, the Townships of Nakina and Beardmore, and an extensive area of unincorporated territory including numerous rural settlement areas such as Caramat, Jellicoe, and MacDiarmid. Since the amalgamation, the Municipality of Greenstone has faced an economic downturn and an outflow of

population. As of 2016, the populations of Geraldton and the Municipality of Greenstone were 1,828 and 4,636 respectively, according to Statistics Canada, 2017.

The Municipality of Greenstone and the surrounding area has historically been the territory of several Indigenous communities. Currently, several Indigenous communities have federally recognized land reserves in the Greenstone municipal boundaries, including Long Lake 58, Animbiigoo Zaagi'igan Anishinaabek (Lake Nipigon Ojibway), Biinjitiwaabik Zaaging Anishinaabek (Rocky Bay), and Bingwi Neyaashi Anishinaabek (Sand Point). Aroland and Ginoogaming Indigenous communities have reserves situated just outside the Greenstone municipal boundaries, near the wards of Nakina and Longlac. As well, there is an historical Metis Community.

Today, mineral resources provide major opportunities for the Municipality of Greenstone. In 2008, Greenstone Gold Mines GP Inc. acquired the Hardrock mining claim south of Geraldton and is currently proposing to construct and operate a new open pit gold mine, processing plant and ancillary facilities. The Municipality of Greenstone has also branded itself the “Gateway to the Ring of Fire.” Located in Northern Ontario, approximately 300 km north of Geraldton, the Ring of Fire is reported to have significant chromite reserves and is considered one of the largest potential mineral reserves in Ontario.

4.3.2 Residents

Statistics from the 2016 Canadian Census allow for a comparison between the municipalities and provincial averages. Specific Census data was only available for Greenstone’s larger urban centres, Longlac and Geraldton; census data was not available for the smaller urban centres such as Beardmore and Nakina. Table 4.4 presents available relevant data for comparison, including statistics for growth, median age, population density, and total population. Longlac and Geraldton have experienced minimal growth, while Greenstone is in decline.

Table 4.4: Demographics (2016)

	Growth from 2011 to 2016 (%)	Median Age	Population Density (per km²)	Total Population
Ward of Geraldton	1.0	44.3	735.2	1,828
Ward of Longlac	3.7	41.3	814.9	1,434
Municipality of Greenstone	-1.9	45.4	1.7	4,636
Province of Ontario	4.6	41.3	14.8	13,448,494

(Statistics Canada 2017 a.b.c)

The preferred route passes numerous residential properties and small businesses such as bars and restaurants, retail stores, office buildings, government services, and a motel. Additional residents and businesses exist throughout Geraldton near the preferred route. The preferred route also passes residential properties in the community of Rosedale Point, south of Barton Bay.

4.3.3 Culture, Tourism and Recreational Facilities

Religious Institutions

There are four places of worship known in the Study Area: St. Theresa's Parish, St. James Anglican Church, the Presbyterian Church, and the Geraldton Faith Chapel. There was one cemetery identified in the Study Area – the Pinegrove Cemetery.

Recreational Services and Facilities

Located throughout the Study Area are several trails which may be used for walking, riding, or snowmobiling, as well as parks and playgrounds. One community centre was identified in the area – the Geraldton Community Centre, which includes a hockey rink, baseball diamond, and tennis court. The Kenogamisis Golf Course and Discover Geraldton Interpretive Centre are also located in the Study Area. Lakes in the Study Area may be used for recreational fishing, swimming, or boating.

4.3.4 Community Services & Infrastructure

The Municipality of Greenstone provides water and wastewater services, recycling/waste pickup, and emergency fire services. The municipality is also responsible for establishing and implementing a municipal Official Plan (OP) and enforcing municipal by-laws. The Municipality of Greenstone's Administration Office is located along the preferred route on the west side of Main Street (Highway 584), south of Edith Avenue.

Schools and Libraries

Schools located in the Study Area were identified through the Superior North Catholic District School Board (SNCDSB), Superior-Greenstone District School Board (SGDSB) and Conseil scolaire de district catholique des Aurores boréales (Catholic School Board District of Northern Lights; CSBDNL) school listing posted on their websites. A search was also conducted for private schools, but none were identified. A total of three elementary schools were identified in the Study Area - B. A. Parker Public School (SGDSB), St. Joseph School (SNCDSB) and L'école St-Joseph (CSBDNL), and one high school – Geraldton Composite High School (SGDSB). Confederation College also has a campus located in Geraldton.

One library was identified in the Study Area – the Greenstone Public Library Geraldton Branch (Elsie Dugard Centennial Public Library).

Police Stations, Fire Stations, and Hospitals

The Ontario Provincial Police (OPP) provide police services. The Study Area is patrolled by the OPP Greenstone Detachment. The OPP Greenstone Detachment office is in MacLeod. Emergency fire services in the Study Area are provided by the Municipality of Greenstone. Fire trucks are housed and deployed from the Geraldton Police Department.

One hospital was identified in the Study Area – the Geraldton District Hospital. Emergency medical services in the Study Area are provided by Superior North Emergency Medical Services, a division of the City of Thunder Bay, who provide emergency medical care throughout the District of Thunder Bay.

4.3.5 Land Use

Background

The Project is in the Municipality of Greenstone, approximately 210 km northeast of the City of Thunder Bay. Planning and development in the Study Area is guided by the Municipality of Greenstone OP (2017). Municipal zoning is regulated by the Municipality of Greenstone Zoning By-law 80-1004 (1981). The zoning by-law only applies to lands in urban settlement areas; lands outside urban settlement area boundaries do not hold municipal zoning designations. In the Geraldton urban settlement area, the preferred route is predominantly located on lands designated as residential zones, but also includes commercial and rural zones (Municipality of Greenstone 2017). Approximately 10 km of the preferred route is located in existing road allowances.

Boreal forest largely covers the Study Area. Urban development is concentrated in the community of Geraldton. Other minor pockets of urban development occur throughout the southern portion of the Study Area in the communities of Rosedale Point, Little Longlac, MacLeod Townsite and Hardrock Townsite. the Greenstone Mine is proposed to be at the south end of the preferred route.

4.3.6 Employment and Businesses

The most recent economy and employment statistics are found in the 2016 Census Profile released by Statistics Canada in March of 2017. There is no data available specific to Geraldton; data only exists for the Municipality of Greenstone. Table 4.5 summarizes and compares the unemployment rate, percentage of population (over the age of 15) in the workforce and median after-tax household incomes of Greenstone and Ontario (Statistics Canada 2017).

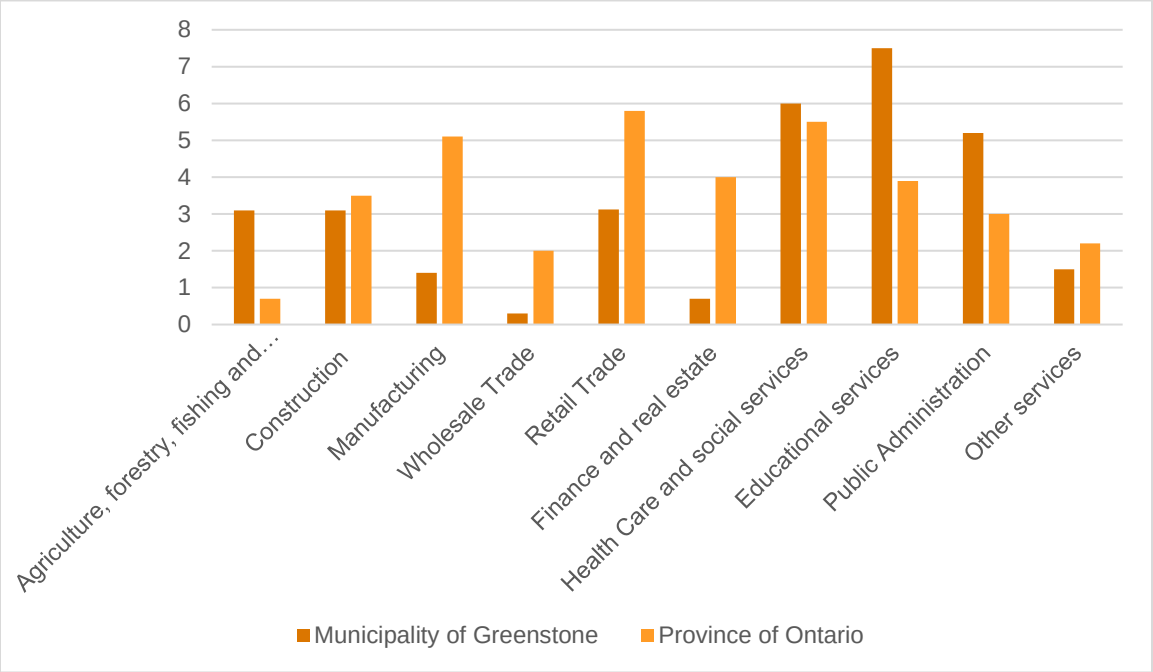
Table 4.5: Economy and Employment Statistics (2016)

	Unemployment rate	Population > 15 years or age in workforce (%)	Median after-tax household income ($)
Municipality of Greenstone	10.6	51.3	57,024
Province of Ontario	4.2	71.2	106,473

(Statistics Canada 2016c)

Figure 4.1 shows the percentage of the workforce employed in the most common industries in Greenstone and Ontario as released by Statistics Canada (2007). Figure 4.1 indicates that educational services is the most common type of employment in Greenstone, accounting for 7.5% of total employment and exceeding the provincial average of 3.9%. Other types of employment, such as manufacturing, wholesale trade, and finance and real estate are lagging in Greenstone when compared to Ontario.

Figure 4.1: Distribution of Workforce by Percentage (2016)



(Statistics Canada 2016 c)

4.3.7 Air Quality and Noise

As noted in the above Section on Land Use, the landscape in and adjacent to the Study Area is a mixture of residential, commercial, and rural zones.

The most southern and northern portions of the Study Area represent the rural zones, which, according to Environmental Noise Guideline (MECP 2019), would be categorized as a Class 3 area – that is "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 remaining portions of Study Area fall in the urban settlement area, and can be categorized as a Class 2 area, meaning "an area with an acoustical environment that has qualities representative of both Class 1 and Class 3 areas" with an acoustical environmental dominated by the activities of people, usually road traffic during the day, and evening and night background sound defined by natural environment and infrequent human activity. This area experiences a higher traffic volume that represents a significant source of noise for the majority of the existing route and alternative segments, with increased traffic volume along the urban settlement area of Geraldton. Other minor noise sources in the Study Area include occasional sounds due to anthropogenic agricultural activities and occasional sounds due to anthropogenic domestic activities such as property maintenance and recreation.

4.3.8 Landfills and Contaminated Sites

Background

Landfills

In accordance with the MECP's Guideline D-4 Land Use on or Near Landfills and Dumps (1994), active and closed landfills in 500 m of the Study Area were reviewed. The potential location of these sites in the Study Area was determined by cross-referencing Municipality of Greenstone OP (2017) and the MECP's Small and Large Landfill Sites listed on the MECP website (2012; 2020).

These sources did not identify the presence of closed or active landfills in the 500 m buffer; however, a review of the MECP Small Landfills database indicated that presence of a closed landfill facility (ECA# A590042), located 4.8 km west of Junction 584 and Highway 11, south of Highway 11 on Goldfield Road as well as the Longlac Waste Disposal Site (ECA# A7268501), located approximately 29 east of the Project. Refer to Figure C3, Appendix C.

Contaminated Sites

The location of contaminated sites in the Study Area were identified by reviewing the MECP Brownfield's Environmental Site Registry (2016b), the Federal Contaminated Sites Inventory accessed through the Treasury Board of Canada Secretariat's website (2017). These resources did not identify any potentially contaminated sites in the Study Area.

Historic mine tailings areas have been identified south of Barton Bay through aerial imagery interpretation and groundwater field data collected by Stantec, Amec Foster Wheeler plc, Greenstone Mines, and TBT Engineering, as well as mine closure plans. It is possible that additional undiscovered contaminated sites may exist in the Study Area.

Potentially contaminated sites are shown on Figure C3, Appendix C.

4.3.9 Infrastructure

Infrastructure identified for this Project includes roads, railways, hydrocarbon facilities, hydroelectric facilities, and other utilities such as water, wastewater, and communication lines.

Major roads in the Study Area include Highway 584 running north-south, and TransCanada Highway 11 running east-west through the southern portion. Numerous minor arterial roads also are in the Study Area, predominantly in Geraldton.

The Study Area contains the decommissioned Canadian National Railway Kinghorn Subdivision line which connected Thunder Bay to Longlac, via Geraldton and Nipigon, until 2004. (Thunder Bay mining report).

The preferred route will commence at the existing Enbridge Gas Valve Site located along an active TransCanada natural gas transmission pipeline is located at the northern extent of the Study Area.

Low and high voltage overhead electric transmission lines suspended from wooden poles are present throughout the Study Area in road RoWs, several of which will be intersected by the preferred route.

A variety of other buried and overhead utilities (telephone, fiber optic, water mains, and sewer mains) are in the Study Area in road RoWs.

4.3.10 Heritage Resources and Cultural Heritage Landscapes

A Heritage Overview was conducted to identify potential heritage resources in and adjacent to the pipeline corridor. The Heritage Overview looked at potential built heritage resources and cultural heritage landscapes. The Heritage Overview also sought to identify whether further assessment of the built environment is required based on the identification of heritage resources, including built heritage and cultural heritage landscapes, in the limits of the Study Area. For the purposes of the Heritage Overview, the Study Area included a band 50 m wide on all properties that the preferred route crosses. The Heritage Overview included agency consultation, review of historic mapping, and a visual assessment of the Study Area to determine the presence of potential heritage resources and protected properties.

Potential heritage resources were identified. Subsequently, a Cultural Heritage Assessment Report (CHAR) was prepared and is provided in Appendix E. The CHAR determined the impacts of the Project, if any, on heritage resources in and adjacent to the preferred route.

4.3.11 Archaeological Resources

A Stage 1 Archaeological Assessment, including a Stage 1 property inspection, was conducted along the Preliminary Preferred Route in 2017 as per the Ministry of Tourism, Culture, and Sport's (MHSTCI) 2011 *Standards and Guidelines for Consultant Archaeologists*. The Stage 1 Archaeological Assessment included the review of available information about the known and potential archaeological resources in the Study Area.

A Stage 2 Archaeological Assessment was also completed for the Project. Both the Stage 1 and Stage 2 Archeological Assessments can be seen in Appendix F.

Upon Study Re-Commencement, Stantec determined that no further archeological studies were needed to assess the area north of the termination point captured under the new routing modification. The Stage 1 Archaeological Assessment completed for the 2018 Greenstone Mine Project evaluated the area of the proposed routing modification. The Report and fieldwork undertaken for that Project by Stantec found no archaeological concerns or resources in this area. See PIF number: P256-0302-2014.

4.3.12 Indigenous Communities

The Project is located in the traditional territory of the Ojibwe and Oji-Cree people who have resided along the Kenogamisis River since time immemorial. The Project is also located in the area in which the Metis people have traditionally resided. Lastly, the Project is located in Treaty 9 and Robinson Superior Treaty territory, the Metis Nation of Ontario's Region 2, and the Red Sky Metis Independent Nation territory.

A high-level summary of the communities the MENDM identified has having a potential to be impacted by the Project is presented below. A high-level summary of the Animbiigoo Zaagi'igan Anishinaabek First Nation and Biinjitiwaabik Zaaging Anishinaabek communities are also presented in the list below:

Long Lake 58 First Nation

Long Lake 58 First Nation is located on Trans-Canada Highway 11 approximately 300 kilometers northeast of Thunder Bay and approximately 2 km west of the town of Longlac, between the TransCanada Highway and the Canadian National Railway. Long Lake 58 First Nation consists of approximately 1,200 band members with approximately 500 living on reserve.

Aroland First Nation

Aroland First Nation is an Ojibwa and Oji-Cree First Nation located approximately 20 km west of Nakina. Their community, the Aroland Indian Settlement, has Indian Reserve status though the settlement itself is not a Reserve. Aroland First Nation consists of approximately 600 band members with approximately 400 members living on the reserve.

Ginoogaming First Nation

Ginoogaming First Nation (formerly Long Lake 77 First Nation) is a small Ojibway community located approximately 40 km east of Geraldton. The community is located on the northern shore of Long Lake, immediately south of Long Lake #58 First Nation and Longlac. The community is in the territory boundaries of the James Bay Treaty of 1905 – Treaty No. 9. Ginoogaming First Nation consists of approximately 773 band members with approximately 168 living on reserve.

Metis Nation of Ontario (MNO)

Greenstone is identified as a Historical Metis Community, in Region 2 of the MNO and in the region, approximately 1500-2000 Metis People reside, and practice their way of life.

Red Sky Métis Independent Nation™ (RSMIN)

The Red Sky Métis Independent Nation™ (RSMIN) consists of descendants of the 84 “half-breeds” who were recognized by the Crown as beneficiaries and annuitants under the Robinson Superior Treaty of 1850, in concurrence with the First Nation peoples. However, RSMIN is distinct from the First Nation peoples by ways of their traditional lands, traditions, customs, and practices.

Biinjitiwaabik Zaaging Anishinaabek

The Biinjitiwaabik Zaaging Anishinaabek (formerly known as Rocky Bay First Nation) is an Ojibway First Nation band government in Northwestern Ontario, Canada. Their territory is located on the Rocky Bay 1 reserve in Greenstone, Ontario, bordering on the community of Macdiarmid. In October 2008, they had a total registered population of 678 people, of which 327 people lived on their own Indian reserve.

Animbiigoo Zaagi'igan Anishinaabek First Nation

Animbiigoo Zaagi'igan Anishinaabek First Nation is an Ojibwe First Nation in northwestern Ontario. It has a reserve on Partridge Lake called Lake Nipigon Indian Reserve within the town of Greenstone. It is a member of Waaskiinaysay Ziibi Inc.

5.0 POTENTIAL IMPACTS, MITIGATION AND PROTECTIVE MEASURES

5.1 METHODOLOGY

The potential effects and impacts of the Project on physical, biophysical, and socio-economic features have been assessed along the preferred route. With an understanding of pipeline construction and operation activities (see Sections 5.1.1 and 5.1.2, below), the assessment:

- Describes the environmental and socio-economic setting
- 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 consultation program
- Information available from published and unpublished literature
- Maps and digital data
- Mitigation guidance documents, and
- 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 analysis of alternative routes, to technical surveys of features along the preferred route. 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 to avoid or reduce them.

Specific information requests were made to several agencies during the Project. The information collected assisted in identifying environmental features and constraints located on and adjacent to the route, 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, such information has been withheld from the report or mapped in such a way that specific site locations cannot be determined.

Preliminary site-specific field surveys were completed during preparation of the ER. This information was used to confirm background and third-party information and assist in developing mitigation and site-specific protective measures.

5.1.1 Construction

The pipeline construction process includes various activities. For areas where an open trench is required, the following activities will be undertaken:

1. A pre-construction crew typically prepares the site by removing trees and shrubs (as required) from construction areas prior to the breeding bird nesting period (April 1 - August 31).
2. The first activity typically prepares the construction area by installing environmental (silt fencing) and safety fencing (orange construction fence) at the required locations. Aspects of any traffic management plans, such as the installation of signage and the establishment of alternative vehicle/pedestrian access, are also implemented at this time.
3. The trench is excavated with the use of a hoe excavator or trencher.
4. Pipe is laid on pipe supports on the working side of the construction zone adjacent to the area to be trenched.
5. Various segments of the pipe are welded together and lowered into the trench.
6. The installed pipeline and trench is backfilled with suitable material.
7. Following pipeline installation, a tie-in crew will complete road and watercourse crossings to connect the mainline sections. Road crossings will be completed by drill or open cut. During open cut construction, the road will be temporarily closed, and the pipeline installed. Watercourse crossings will be completed via HDD.
8. The pipeline is hydrostatically tested with surface water from nearby sources or water trucked to the site from approved suppliers. Once hydrostatic testing has been completed the water is drained to a suitable area and according to permitting requirements, the pipeline is dried, and then filled with natural gas.
9. Re-establishment of pre-construction conditions, including clean-up and repairs to roads, driveways, fences; disposal of debris; and seeding of disturbed areas, ditch banks and drainage feature crossings.
10. Post-construction monitoring to assess the success of mitigation measures, including implementing additional mitigation measures as necessary to correct any issues.

5.1.2 Operation and Maintenance

Pipeline operation consists of pressurized natural gas flowing through the pipeline. Mainline valves 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, fence stiles, foot bridges for ditch crossings, 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 are undertaken to patrol and maintain the pipeline:

- Performing Standard Operating Practices on distribution mains and stations.
- Completing inspection of the entire pipeline by Enbridge Gas every four years 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 – an electric current that runs along the length of the pipeline to prevent the development of corrosion.
- Reviewing operating conditions of pipeline facilities such as valve sites and stations.

5.2 SUMMARY TABLE

Table 5.1 provides a summary of the recommended supplemental studies, mitigation and protective measures identified in Sections 4.

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
PHYSICAL FEATURES			
Bedrock Geology and Drift Thickness *Section 4.1.1*	Based on the shallow nature of the excavation and outcropping that is present along portions of the proposed route, it is likely that bedrock may be encountered during trenching. If bedrock is encountered during trenching, a hoe-ram will break up the rock to the required trench depth and width. Blasting may also be used to excavate through rock where necessary. Where hoe-ram and blasting are used to excavate bedrock material, potential impacts may include fly rock damage, increased noise, blasting vibration, increase in water turbidity and potential disturbance to fisheries, impacts to nearby wells, and impacts to structural foundations. Disturbance to the overburden along the proposed pipeline may cause surface soil erosion during construction.	• If the bedrock encountered during trenching is fractured or of an unconsolidated consistency, the preferred method of trenching is with the use of an excavator with a bucket or hoe-ram. However, ripping or hoe ramming will likely not be feasible in all locations and blasting is anticipated to be required. • Where blasting is required, blasting mats should be used to assist in controlling the blast. Immediately after blasting/hoe-ramming, 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. • Enbridge Gas should consider informing surrounding landowners of the timing of bedrock removal, given the potential for nuisance noise. • In locations where blasting is required near residential homes or buildings, a blasting consultant should be retained to assess the need to monitor potential blasting impacts. If a monitoring program is initiated, it should include the inspection of foundations and other structures for integrity prior to blasting activity. The identification of homes and buildings to be	With the implementation of the mitigation and protective measures, no significant adverse residual impacts as a result of bedrock removal are anticipated.

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		monitored, in proximity to the blast, should be determined by the blasting consultant. • Mitigation measures for water wells adjacent to the preferred route are discussed in Section 4.1.3. • Blasting procedures should be conducted by a licensed blasting contractor in accordance with applicable regulations. In addition, the handling, transportation, and storage of explosives should be undertaken in a safe and secure manner. If required, blasting in watercourses should be conducted in accordance with the DFO *Guidelines for the Use of Explosives in Canadian Fisheries Waters* (1995). • Construction 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 exposed areas as appropriate. Final landscaping and vegetation should be installed as soon as practical.	
Physiography and Surficial Geology *Section 4.1.2*	Disturbance to the overburden in the Study Area may cause surface soil erosion and trench slumping during construction.	• Surface soil erosion can occur in the absence of vegetative cover. Where there is potential for soil erosion, the need for and location of erosion and sediment control (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.	With the implementation of the mitigation and protective measures, no significant adverse residual impacts to or from the overburden material are anticipated.

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		• The contractor should 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 through 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. • To avoid the trench from slumping, trench walls should be sloped and should be monitored during wet conditions for the potential to slump. • Slope stability should be reviewed at watercourse crossing locations. Watercourse banks should be seeded and stabilized immediately following crossing. ESC and stabilization measures should be maintained during construction, restoration, and rehabilitation until vegetative cover is established. Where evidence of erosion exists, corrective control measures should be implemented as soon as conditions permit. • At areas of the landscape with steep slopes, including steep banks at watercourse crossings, site-specific mitigation and protective measures should be considered at the discretion of the on-site inspection team, including:	

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		o placing erosion control measures at intervals along the slopes o restricting the movement of heavy machinery and construction personnel during construction on the slope o re-establishing existing contours and drainage upon completion of construction o re-establishing slopes and applying hydro-mulch and hydro-seed with a quick germinating seed mixture appropriate to the surrounding vegetation at the final stages of construction and watercourse crossing o monitoring and maintaining erosion and sediment controls during construction, restoration and rehabilitation until vegetative cover is established; and o where evidence of erosion exists, implementing corrective control measures as soon as conditions permit.	
Groundwater *Section 4.1.3*	<u>Private Water Wells</u> There is approximately 1 private water well in 100 m of the Project installed at a depth of 11.3 m. The approximate depth to bedrock at this well is 0.9 m. Depending on groundwater levels encountered during excavation, trench dewatering has the potential to impact water well quality or quantity at this overburden supply well.	<u>Private Water Wells</u> • A private well survey should be conducted to assess domestic groundwater use near the Project and a private well monitoring program is 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 the 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.	With the implementation of the mitigation and protective measures, no significant adverse residual impacts on groundwater are anticipated.

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	Municipal Water Supply There are no municipal wells, IPZ's, or WHPAs associated with the surrounding municipal groundwater supply system in 100 m of the Project. Based on the Clean Water Act (2006), the Project construction activities do not pose a significant threat to drinking water supply or source water threats. However, in the event of a contaminant spill during construction, there is potential that the water quality in the underlying aquifer(s) and/or nearby surface water bodies may be negatively impacted.	Municipal Water Supply • To reduce the risk of water quality impacts to underlying aquifers and nearby surface water, Stantec recommends that vegetation clearing be minimized, to the extent possible, in the significant groundwater recharge area. • Refueling of equipment should be undertaken 50 m from wetlands and watercourses to reduce potential impacts to surface water and groundwater quality if an accidental spill occurs. If a 50 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. • 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.	
Hydrostatic Testing *Section 4.1.4*	Hydrostatic Testing and Dewatering The pipeline will be hydrostatically tested before commissioning. Select sections of pipe may also be pre-tested, such as at road crossings. Water required for the testing may be obtained from a municipal or natural source. Before the withdrawal of water from a municipal source, the municipality will	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 effective implementation of the mitigation measures discussed, no net impacts are anticipated to result of hydrostatic testing.

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	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 foreign aquatic organism to a drainage basin and 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. • If municipal water is used as the source water for the hydrostatic test, approval should be obtained from the MECP for a Class IV – Planned Spill. The request for approval would include details of proposed discharge, proposed mitigation measures and potential impacts to the receiving environment. • 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.	

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		• 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. • Gas powered water pumps used for testing should be protected against the potential for a spill of fuel or lubrication oil. Tub containers that are designed to contain any potential fuel spill or leak should be in place to contain the equipment. • A plan for a suitable dissipation location of the test water should be confirmed prior to dewatering the lines.	
Soil and Soil Capability *Section 4.1.5*	The detailed design of the pipe is planned to include construction mostly in road allowances. Previously disturbed soils, as found in many road allowances can be found in a range of conditions. Some areas in the road allowances are anticipated to have been stripped re-graded with a graveled or paved surface. Some areas are anticipated to have been stripped regraded and rehabilitated to a vegetated surface. As well, it is anticipated that some areas of the preferred route will have natural undisturbed soils. Generally, topsoil has a higher organic matter content that increases its' water	<u>Excess Soil</u> • It is noted that the MECP has new regulations for the movement of excess soils in the province of Ontario. Though the Project is not expected to generate significant quantities of 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. <u>Wet Soil Shutdown</u> • To the extent feasible, construction activities should occur during drier times of the year when evapotranspiration is greatest. Lands affected by heavy rainfall events should be monitored for wet	With the implementation of the mitigation and protective measures, no significant adverse residual impacts on soil or soil capability are anticipated.

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	holding capacity and resilience to wear compared to subsoil. During construction, excessive passes with heavy equipment on topsoil can result in damage to the point of greatly diminished crop productivity. Soil characteristics relating to the potential for damage include: soil structure, moisture content, texture, organic matter content. To facilitate the successful rehabilitation of the construction area, topsoil may be stripped and stored separately from the subsoils. 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 many 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.	soil conditions, to avoid the potential for topsoil and subsoil mixing and loss of structure. 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. <u>High Winds</u> • During construction activities, weather should be monitored to identify the potential onset of high wind conditions and to preserve topsoil. In the event that high winds occur, the contractor should implement protective measures such as: o Suspend earth moving operations o Apply dust suppressants or vegetate the piles o Protect soil stockpiles with a barrier or windscreen • In conjunction with the above measures, all required materials and equipment should be readily accessible and available for use as required.	

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	Trenching and construction activities have the potential to affect soil quality. When exposed, soils are more prone to erosion due to the loss of vegetative cover. Improperly salvaged topsoil can result in topsoil and subsoil mixing, rutting, and erosion.	<u>Soil Stripping</u> • Topsoil stripped from the portions of the pipeline RoW which are planned for vegetative cover should be stripped during moderately dry soil conditions to allow for the separation of soil layers. In these areas, identification of the topsoil and subsoil interface should be carefully monitored to ensure that all topsoil with limited subsoil is stored together and apart from the underlying subsoil. This topsoil should be stockpiled for use during clean-up and rehabilitation. • If clean-up is not practical during the construction year, it should be undertaken in the year following construction, starting once the soils have sufficiently dried. Interim soil protection measures should be implemented in sensitive areas to stabilize the RoW for over-wintering.	
Extractive Resources *Section 4.1.6*	The preferred route will not cross any lands currently utilized for resource extraction, or land on which future resource extraction is likely.	As no potential impacts will occur to extractive resources as a result of the Project, no mitigation or protective measures are recommended.	No net impacts are anticipated to extractive resources.
Natural Hazards *Section 4.1.7*	The probability of significant seismic activity in the Study Area is low; therefore, no potential impacts are anticipated. Inundation of Kenogamisis Lake, located 3.8 km east of the Project, occurs 1:100 years (Stantec 2018). The Kenogamisis Lake Dam controls water levels in Kenogamisis Lake and thus, extreme flooding is more likely to occur to due rapid snowmelt. Rapid snowmelt and ice jams, can lead to flooding,	• If flooding necessitates a change in the construction schedule, affected landowners and regulatory agencies should be notified and construction should continue at non-affected locations. • Temporary workspaces should be located above the floodplain to the extent practical, unless necessary for watercourse crossings.	With the implementation of the mitigation and protective measures, no significant adverse residual impacts from natural hazards are anticipated.

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	especially in Northern Ontario (Chiottie and Lavender 2008). The likelihood of a flooding event interfering with Project construction is reduced by construction occurring outside of the spring freshet. A flooding event during construction could result in construction delays, soil erosion, sedimentation of a watercourse, trench slumping, and damage or loss of construction equipment and contamination of a watercourse as a result of equipment entering a watercourse. The nature of these impacts would depend on the spatial extent, duration, and magnitude of the flooding event.		
BIOPHYSICAL FEATURES			
Aquatic Features *Section 4.2.1*	The proposed pipeline includes the following watercourse crossings: • Watercourse X • Hardrock Creek (two crossings) • Barton Bay • Watercourse B The pipeline also comes in proximity to Cecile Lake. Water quality and fish habitat may potentially be affected during construction of the pipeline because of: • an inadvertent release of drilling mud during a HDD	• The following general mitigation measures, or equivalent, are recommended at watercourse crossings. Additional, activity-specific measures related to the crossing methods are provided following the general mitigation measures. Measures presented are intended to be consistent with DFO's measures to protect fish and fish habitat (DFO 2019), but DFO's website (https://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures-eng.html) should be consulted immediately prior to construction to confirm that the construction plan is consistent with the most up-to-date measures to protect fish and fish habitat.	With the implementation of the mitigation and protective measures, no significant adverse residual impacts to aquatic features are anticipated.

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	• erosion or sediment release due to inappropriate dewatering techniques • removal of stabilizing vegetative cover • accidental spills due to inappropriate handling or storage of fuel, dust suppressants, lubricants, or other potential contaminants and from construction vehicles working in or adjacent to the ditch	<u>General Mitigation Measures</u> When working near surface water features, the following general mitigation measures are recommended: • Watercourses should not be obstructed in a way that impedes the free movement of water and fish • Silt fencing should be used adjacent to sensitive receptors when exposed soil slopes are at risk of eroding. • Mitigation measures for sediment erosion and dust control should be implemented to prevent sediment and dust from entering sensitive natural features. • Materials requiring stockpiling (fill, topsoil, etc.) should be stabilized and kept as far away as is reasonably feasible from watercourses, natural features, drainage features and top of steep slopes. Where stockpiled material is near watercourses it should be separated from the watercourse with silt fencing. • Exposed soil areas within 200 m of a watercourse should be stabilized and re-vegetated through the placement of seed and mulching or seed and an erosion control blanket no later than September 30. • Refueling of equipment should be carried out away from sensitive natural features to avoid potential impacts if an accidental spill occurs. If a 50m buffer is not achievable, sorbent materials and/or drip pans should be used at the fueling source and receiving equipment to intercept leakage.	

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		• Fueling and lubrication of equipment should be carried out in a manner that reduces the possibility of spills. On-site fuel tanks and generators should be situated in designated contained areas. • Refueling activities should be monitored, and vehicles should not be left unattended when being refueled. Containers, hoses, and nozzles on the RoW should be free of leaks. Fuel nozzles should be equipped with functional automatic shut-off devices. • To reduce the potential for impact to surficial watercourses, the release of pumped water should be done with appropriately sized filter bags or vegetative buffers to removed sediment from the water prior to discharge to a watercourse and if required, the discharge velocity should be dissipated with the use of riprap, blast mats or similar structure to prevent downstream scour or erosion. • In addition to any specified requirements, additional silt fence should be available on site, prior to grading operations, to provide a contingency supply in the event of an emergency. • Erosion and sediment controls should be monitored regularly and properly maintained, as required. Controls are to be removed only after the soils of the construction area have been stabilized and adequately protected until cover is re-established. • In the unlikely event of a spill, spills containment and clean-up procedures should be implemented immediately. Enbridge Gas will contact the MECP Spills Action Centre. The MECP Spills Action Centre is the first point of contact for spills at the provincial and federal level.	

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		• The limits of construction adjacent to natural features identified to be specifically protected will be fenced prior to construction in that area and will be monitored during construction (along with erosion and sediment control measures) to maintain limits of vehicular traffic and soil or equipment stockpiling. • The Contractor will be required to restore any disturbed natural areas to pre-construction conditions. • Banks of watercourses disturbed during construction should be re-stabilized to pre-construction configuration and condition (or better) using native species, where possible. The following mitigation and protective measures should be employed during construction to reduce the risk of impacts to fish and fish habitat. • Additional supplies should be maintained on-site, in a readily accessible location, for maintenance and contingency purposes. Prior to construction, adequate quantities of the materials listed below, or comparable substitutions, should be on site to control erosion and sediment deposition: o Sediment control fencing o Sediment control logs (i.e., SiltSoxx™) o Straw bales o Wooden stakes o Sandbags o Water energy dissipater o Filter cloth o Water pumps (including stand-by pumps and sufficient lengths of hose)	

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		In-Water Timing Windows Works adjacent to aquatic resources that provide fish habitat, or have the potential to support fish habitat, are often restricted to certain periods to avoid construction-related impacts to fish species during their most sensitive/vulnerable life cycles (i.e., during reproduction and early development stages of eggs and larvae). • Based on the cool water fish community in study area, in-water works are prohibited between April 1 and June 20 (http://www.dfo-mpo.gc.ca/pnw-ppe/timing-periodes/on-eng.html). An additional timing restriction of September 15 to May 31 will be applied to the Barton Bay crossing, due to the presence of Lake Whitefish and Cisco in Kenogamisis Lake. Timing windows should be confirmed with the Ministry of Natural Resources and Forestry. Flow Diversion/Dewatering • Use HDD methods where feasible to reduce the need for in-water work. • Where in-water works are required, the work area will be isolated from the remainder of the surface water feature. Maintenance of downstream flow will avoid potential upstream flooding and desiccation of downstream aquatic habitat and organisms. Dewatering operations will be managed to prevent erosion and/or release of sediment laden or contaminated water to the waterbody (e.g., settling basin, filter bag, energy dispersion measures). An isolation/containment plan should be prepared and implemented to isolate temporary in-water work zones to maintain clean flow to downstream/around the work zone.	

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		Fish Rescue Plan • If dewatering is required, fish within in the construction area should be collected and moved using capture, handling, and release techniques to reduce harm and stress. The intakes of pumping hoses should be equipped with an appropriate device to avoid entraining and impinging fish (see Interim code of practice: End of pipe fish protection screens for small water intakes in freshwater at the following DFO website https://www.dfo-mpo.gc.ca/pnw-ppe/codes/screen-ecran-eng.html). If required, fish rescue plans should be developed on a site-specific basis and implemented by qualified professionals with the appropriate licence in place (i.e., MNRF Licence to Collect Fish for Scientific Purposes). Site Restoration and Riparian Planting • Following construction, the bed and banks of the crossing locations will be restored similar to pre-construction conditions. Bank slopes should be restored to match existing grades; however, alterations may be made to maintain slope stability and limit future erosion. Exposed banks should be re-vegetated with native shrubs and grasses to provide riparian cover and aid in erosion and sediment control. Stream beds should be restored to maintain slopes and tie in with existing grades. Bed material will be replaced to match pre-construction conditions. Permitting The *Fisheries Act* (R.S.C., 1985, c. F-14) prohibits activities that result in the death of fish or the harmful alteration, disruption or destruction (HADD) of fish	

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		habitat (s.35[1]) unless authorized by the Minister of Fisheries and Oceans Canada (DFO). The *Species at Risk Act* (S.C. 2002, c. 29), prohibits the killing, harming, harassing, capturing or taking of a species (s.32) or damaging or destroying the residence of a species (s.33) that is listed as extirpated, endangered or threatened. For federally regulated aquatic species, these activities may be permitted through a *Species at Risk Act* (SARA) Permit, issued by DFO. The above prohibitions apply to activities that occur in or near waterbodies that support fish and fish habitat and/or aquatic species at risk protected under the SARA. If in-water works (i.e., open cut, dam and pump) are expected, a consultation with DFO may be required. Enbridge Gas' on-site inspection team should monitor watercourse crossings to check adherence to plans and permits, check that pre-construction preparation is complete prior to commencement of the watercourse crossing, check that work areas are restored to preconstruction conditions, and determine when contingency measures for watercourse crossings should be implemented.	
Designated Natural Areas and Vegetation *Section 4.2.2*	The majority of the pipeline route follows existing roads and is located in existing road allowances. Approximately one-third of the route occurs in anthropogenic/built up areas. The southern extent of the preferred route (approximately 1.5 km) crosses native vegetation communities including conifer and deciduous forests and swamps.	Mitigation and protective measures are outlined in Section 4.1.1 for dust, Section 4.1.2 for erosion and Sections 4.1.3 and 4.2.1 for accidental spills. Environmental mitigation and protective measures for natural areas and vegetation during construction include the following: • reduce clearing and disturbance to natural areas to the extent possible • surveying and staking the limits of clearing in the field • in-cutting of brush and trees so that they fall in the limits of clearing	With the implementation of the mitigation and protective measures, no significant adverse residual impacts on designated natural areas and vegetation are anticipated.

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	Where the route departs from the existing road allowance, or where native vegetation occurs in the road allowance, the Project will result in the removal of native vegetation. Other potential impacts include the introduction or spread of invasive species, reduced wetland connectivity and indirect effects such as dust, erosion, and accidental spills.	• conducting clearing during dry soil conditions, to the extent practical, to limit disturbance to terrain • clearing should be completed in accordance with the municipal tree clearing by-law managing soils so that the native seed bank in the replaced soil is viable and facilitates successful revegetation • seeding of the disturbed temporary work areas and permanent easement with a native seed mix appropriate to the area • implementing erosion and sedimentation control measures • using dust suppressants (e.g., water) on roadways as needed • cleaning and inspecting work vehicles or heavy equipment prior to use at a work site and following transportation between sites to prevent the introduction of weed/invasive/non-native species • using clean, coarse fill material for grading to reduce the risk of introducing or spreading exotic or invasive plant species • one year following construction, planted vegetation should be inspected for survival; in areas of severe dieback, dead and diseased planted vegetation should be replaced Mitigation measures specific to wetlands include the following: • establishing and maintaining natural buffers around wetlands and riparian zones, where possible • limiting construction activities in wetland areas to the extent possible to reduce potential environmental effects of disturbance (erosion and sedimentation, introduction or spread of exotic or invasive vascular plant species)	

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		• leaving drainage courses undisturbed or with low disturbance where possible to limit effects down gradient. • removing vegetation at ground level, leaving existing root systems. • limiting tree stump removal and grading activities • installing water control swales, as required, to facilitate cross easement water movements • establishing travel areas by installing swamp mats • stripping the top 0.15 – 0.30 m of topsoil/muck separately from the subsoil in the area disturbed by trenching • regularly inspecting the off-easement water regime, monitoring for possible off-easement ponding • storing on-site fuel tanks and generators in designated contained areas • fueling and lubrication of equipment in a manner that reduces the possibility of spills • Refueling of equipment away from wetlands to avoid potential impacts if an accidental spill occurs. If a 50 m buffer is not achievable, sorbent materials and/or drip pans will be used at the fueling source and receiving equipment to intercept any leakage. • reducing construction equipment traffic in wetland areas to the amount necessary to complete the pipeline construction • replacing small ephemeral ponds and seasonal depressions post-construction	
Wildlife Habitat, Wildlife, and Species at Risk *Section 4.2.3*	Vegetation communities and open aquatic areas in the BSA provide bird, mammal, reptile, and amphibian habitat, including the significant wildlife habitats	Mitigation and protective measures are discussed in Section 4.2.2 for vegetation removal, and Sections 4.1.3 and 4.2.1 for accidental spills. Environmental	With the implementation of the mitigation and protective measures, no significant adverse residual impacts on

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	identified above. Vegetation clearing activities have the potential to result in direct loss of wildlife habitat. Loss of habitat will occur on the portion of the route north of Highway 11 where the route crosses forest and wetland habitat away from established corridors and solely on the proposed mine property (approximately 1.5 km in length). Habitat will be lost in areas where native vegetation occurs in the road allowance. The Project does not require the removal of any buildings, therefore there will be no direct impacts to barn swallow nesting or potential anthropogenic bat maternity roosting habitat. Potential indirect effects to wildlife habitat from construction may include habitat degradation through spills and sensory disturbance of wildlife during construction. Sensory disturbance (e.g. noise, light) has the potential to result in indirect habitat loss due to reduced effectiveness (i.e., avoidance) however the additional sensory disturbance from the construction of the pipeline is anticipated to have minimal effect on habitat for wildlife as most of the pipeline is sited in proximity to an existing highway or occurs in an existing built area (i.e. town of Geraldton). Potential impacts on wildlife include increased risk of direct mortality from vegetation clearing or construction	mitigation and protective measures during construction include the following: <u>General mitigation measures</u> • On-site 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. • Construction activities with the potential to remove migratory bird habitat, such as vegetation clearing, should be avoided to the extent possible during the breeding season which is generally from the beginning of May to mid-August in this zone of Ontario (Environment Canada 2017). Should vegetation clearing activities be unavoidable during this window, a program should be implemented to reduce and avoid impacts to migratory birds and their nests. This program should include preventative and include mitigation measures but may also include avoidance of clearing during key sensitive periods and in key locations. • Retain actual or potential wildlife trees (e.g., cavity trees or snags) where safe to do so. • 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 to allow for the potential movement of wildlife across the ROW. • Fencing should be erected around deep excavations such as bore bays to prevent wildlife entrapment.	wildlife habitat, wildlife and SAR are anticipated.

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	vehicles, and/or adults abandoning young due to disturbance. This risk is greatest for species with limited avoidance capability or wildlife that are occupying specialized habitat features such as amphibian breeding habitats, turtle overwintering or nesting sites, nesting birds, or roosting bats. Risk can be reduced by avoiding high risk activities to the extent possible during the time these habitats would be occupied.	• Garbage, particularly food wastes, should be properly disposed of to avoid attracting wildlife. • Construction, clean-up, and restoration activities should be conducted expeditiously to minimize potential barriers and hazards to wildlife. • The contractor should ensure that crews do not threaten, harass, or injure any wildlife. • If any terrestrial wildlife is encountered during construction, personnel are required to move a safe distance away from the animal and wait for the animal to move off the construction site. • Equipment and vehicles are to yield the ROW to wildlife. • Any SAR individual that is incidentally encountered in the Study Area must be allowed to leave of its own accord. Activities in 20 m should cease until the individual disperses. Construction machinery/equipment must maintain a minimum operating distance of 20 m from the individual until it disperses from the work zone 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, MECP must be contacted immediately for additional guidance. • Any SAR individual that is 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.	

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		• Temporary alterations to SAR habitat must be limited to the duration and spatial extent possible and be remediated upon completion of activity and monitored as necessary. • If SAR are found in the Study Area, Enbridge Gas will undertake consultation with the MECP to identify species specific mitigation and/or permitting requirements under the ESA. <u>Site-specific Wildlife and Wildlife Habitat Mitigation Measures</u> • Complete the removal of potential bat maternity roosting habitat (treed habitat) outside the core active season for bats (i.e., April 1 to September 30) (Broders et al. 2006; Cagle and Cockrum 1943; Gerson, 1984). • Where practical avoid construction near amphibian breeding habitat (i.e., wetlands) during the amphibian breeding season (May 1-July 15; BSC 2009). • Avoid in-water works during the turtle hibernation period (October 15 – April 15). • Avoid construction near turtle nesting areas during the turtle nesting period (June 1 – September 30) if possible. If construction must occur during nesting season, silt fence this area prior to June 1 of the year of construction to avoid potential nesting prior to construction.	
SOCIO-ECONOMIC ENVIRONMENT			
Residents *Section 4.3.2*	During pipeline construction residents 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	• Additional consultation with residents adjacent to the Project should be held in advance of construction commencement. Contact information for a designated representative should be	With the implementation of the mitigation and protective measures, no significant adverse residual impacts on residents are anticipated.

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	vehicular traffic, dust, and equipment exhaust. Residents and business owners may experience temporary access issues. 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.	available prior to and during construction to address questions and concerns. • Motorized construction equipment should be equipped with mufflers and silencers as available. 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 Municipality of Greenstone Noise By-law No. 03-28 (2003), which states that noise caused by construction equipment in 500 feet of an occupied dwelling may only occur between 7:00 a.m. and 10:00 p.m. from Monday to Saturday and 12:00 noon and 9:00 p.m. on Sunday. Sources of continuous noise, such as portable generators, should be shielded or located to minimize disturbance to residents and businesses. • Site practices during construction should be implemented that are in line with the document 'Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities' prepared by Cheminfo Services Inc. for Environment Canada (Cheminfo Services Inc. 2005), which may include: o Maintaining equipment in compliance with regulatory requirements o Protecting stockpiles of friable material with a barrier or windscreen in the event of dry conditions and dust o Dust suppression of source areas o Covering loads of friable materials during transport	

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		• 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. • 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. • Safety fencing should be installed at the edge of the construction RoW where public safety considerations are required. A Traffic Management Plan (TMP) should be implemented for all roads affected by construction, which at a minimum, outlines measures to: o Control the movement of materials and personnel to and from the construction site o Post signs to warn oncoming motorists of construction activity o Control traffic at road crossings o Reduce on-road disturbance and land closures o Store equipment as far from the edge of the road as practical	

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		o Install construction barricades at road crossings	
Cultural, Tourism, and Recreational Facilities *Section 4.3.3*	Two cultural, institutional, or recreational facilities are located along the preferred route – Theresa's Church, and the Geraldton Community Centre. St. James Anglican Church and the Geraldton Faith Chapel are located in 100 m of the preferred route.	• Mitigation for nuisance construction concerns are recommended in the sections above.	With the implementation of the mitigation and protective measures, no significant adverse residual impacts on culture, tourism, and recreational facilities are anticipated.
Community Services and Infrastructure *Section 4.3.4*	One municipal facility is located in 100 m of the preferred route – Greenstone Administration Office, located at 1800 Main Street. During pipeline construction, employees and users of this facility may experience a general nuisance, and temporary disruption in the use of the facility. Impacts to community services and infrastructure may also result as demands on local community services and infrastructure increase as a result of the Project. Construction activities may affect recycling/waste pickup, and the response of emergency services. The transportation of project goods, services and workers has the potential to lead to increased use of existing transportation infrastructure. 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	• The contractor should have emergency response equipment and trained personnel on-site during construction. In addition, an Emergency Response Plan should be developed and implemented, which will address field health services, emergency call-out procedures and fire response plans. Safety fencing should be used where necessary to separate the work area. • Environmental mitigation should 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. • Approval should be sought from the Municipality for pipeline installation in the existing road allowance. • A Traffic Management Plan should be in place for all roads affected by construction. • The capacity of waste disposal sites will be considered and if Project needs are not easily accommodated, alternative disposal locations will be considered.	Community services and infrastructure appear to have additional capacity to absorb potential increased temporary demands that may result from the Project. 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 infrastructure are anticipated.

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	potential vehicle and workplace accidents.	• Contact information for a designated Enbridge representative will be available to address questions and concerns during construction. Consultation has been initiated and will continue with municipal personnel.	
Land Use Designations *Section 4.3.5*	The preferred route could potentially impact residential and commercial lands, and institutional and recreational facilities. Municipal approvals and permitting will be required for the Project. Updates to the existing Emergency Response Plan will be required to address the facility expansion. Potential effects on residents and businesses are discussed in Section 4.3.2 and 4.3.3, cultural, tourism, and recreational facilities in Section 4.3.3.	• Enbridge Gas will undertake consultation with municipal staff to determine which municipal approvals and permits are required. All required approvals and permits will be obtained prior to construction. • Mitigation and protective measures for residents and businesses are discussed in Section 4.3.2 and 4.3.3, cultural, tourism, and recreational facilities in Section 4.3.3.	As no impacts are anticipated, no net impacts will occur.
Employment and Business *Section 4.3.6*	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	• Overall, it is expected that the Project will generally result in positive effects on employment by providing work opportunity for local and Indigenous people and increasing the employment rate. These positive effects do not require mitigation, but Enbridge Gas will identify and implement various mechanisms to enhance Project benefits. • To further increase the positive effects generated from the Project, contractors should make all reasonable efforts, where practicable, to procure	With the initiatives to encourage local participation in the Project, it is anticipated that the effects from the Project on employment and business will generate 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 economy of the

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	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 During all phases of the Project, labour conditions will be affected by direct, indirect, and induced employment. The unemployment rate in Greenstone is higher than the provincial average, at 10.6 per cent. The required workforce will create work needed opportunity for those living in Greenstone and will result in increased employment income and municipal government revenue. Local businesses, including businesses owned by Indigenous peoples, will also likely benefit from the Project through purchases of labour, goods, and services that will be needed to complete construction of the Project.	services and materials from local suppliers, where services or materials are available in required quantity and at competitive prices. To help encourage further local and Indigenous content on the Project, it is recommended that Enbridge Gas 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. • To mitigate the extent of the adverse impacts to the businesses along 1st Street East and Main Street: o dust control measures should be implemented as outlined in Section 4.3.2 and 4.3.4 o construction should be restricted to daylight hours where possible o the local noise bylaw should be followed • A Traffic Control Plan should be implemented, and safety measures should be put in place.	Greenstone. Additionally, those who have worked on the Project will gain transferrable skills and experience that could help them gain employment in other industries. Mitigation measures and consultation with landowners and businesses along 1st Street East and Main Street, will also address concerns to their operations. With the implementation of the Project, local procurement, and mitigation and protective measures, positive residual impacts on the economy and employment are anticipated.

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	While construction will generally result in positive effects on employment, some local businesses may be temporarily adversely impacted by the Project. These businesses include bars and restaurants, retail stores, office buildings, and a motel, that are located along 1st Street East and Main Street. Potential adverse effects are disruption to the use of property and increases in noise and traffic volumes.		
Air Quality and Noise *Section 4.3.7*	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.	• Mitigation and protective measures for air quality and noise are outlined in Section 4.3.2.	With the implementation of the mitigation and protective measures, no significant adverse residual impacts from air quality and noise are anticipated.
Landfills and Contaminated Sites *Section 4.3.8*	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 RoW. Litter generated during construction may also become a nuisance to adjacent properties if not contained.	• The construction contractor should implement a site-specific waste collection and disposal management plan, which may include: o Waste materials, sanitary waste, and recycling transported off-site by private waste contractors licensed by the MECP. o Contractors required to remove their excess materials from the site. o Labelling and storage of hazardous and liquid wastes in a secure area that would contain material in the event of a spill. o Implementation of a waste management program consisting of reduction, reuse, and recycling of materials.	With the implementation of the mitigation and protective measures, no significant adverse residual impacts from landfills and contaminated sites are anticipated.

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
Infrastructure Section 4.3.9	The preferred route has the potential to interact with roads, hydrocarbon pipelines and buried and overhead utilities. Potential impacts include damage to the infrastructure and safety harm to personnel.	Consultation has been initiated, and will continue, with municipal personnel to obtain road use permits. Where roads will be affected via open cut, a traffic management plan will be developed. The contractor will be responsible for locating, exposing, and appropriately marking existing buried pipelines and utilities on lands which will be affected by trench excavation. Machine operators will be informed where electrical transmission lines are present overhead. Overhead lines that may interfere with the operation of construction equipment will be identified with warning poles and suspended red flags.	With the effective implementation of the above mitigation and protective measures, no significant adverse residual effects to infrastructure are anticipated.
Heritage Resources and Cultural Heritage *Section 4.3.10*	A total of 14 heritage resources were identified in 50 m of the Project location. They were assessed as being at risk of indirect vibration related impacts resulting from construction activities. These resources include multiple properties located along the proposed preferred route including those fronting on First Street East, First Avenue Northwest, Second Avenue Southeast, Second Avenue Northwest, Third Street North, . Michael Power Boulevard, Arena Road, and Rosedale Point.	Following analysis and reporting in the CHAR, it was determined that the use of isolation and a 50 m buffer zone is the preferred mitigation option to reduce the potential for negative indirect Project impacts. Where construction must occur in the 50 m buffer zone, vibration monitoring should be conducted based on the methods set in the CHAR (Appendix D). Further assessment to refine the areas of potential impact may be beneficial as ground movements induced by construction vibration are found to dissipate with distance from the source.	As no direct impacts are anticipated, no net impacts will occur.
Archaeological Resources *Section 4.3.11*	Based on the results of the Stage 1-2 Archeological Assessment completed for the Project and the Stage 1 Archaeological Assessment completed for the Greenstone Mine Project (PIF P256-0302-2014), no archaeological	No mitigation or protective measures are necessary as demonstrated in the Stage 1-2 Archeological Assessment completed for the Project and Stage 1 Archeological Assessment completed for the Greenstone Mine Project (PIF P256-0302-2014).	N/A.

Table 5.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	resources were identified and, as such, no further studies are needed and impacts are not anticipated.		
Indigenous Interests *Section 4.3.12*	The Project is not located in an Indigenous community, though may affect a traditional territory of an indigenous community. While not known to currently occur, the Project will remove natural areas that could be used for traditional harvesting and hunting.	Enbridge Gas has sought input from the identified Indigenous communities and will continue engaging with Indigenous communities as the Project moves forward. Enbridge Gas will also continue to work with their respective Economic Development departments and Enbridge Gas' contractors to find opportunities for their participation in providing goods and services during construction. Information on the current state of Indigenous engagement will be provided in the application to the OEB.	By undertaking the engagement and archaeological assessments, no significant adverse residual impacts on Indigenous interests are anticipated.

6.0 CUMULATIVE EFFECTS ASSESSMENT

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

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, such as alterations in routing, or timing of construction. The cumulative effects assessment has been prepared with consideration of this direction from the OEB.

6.1 METHODOLOGY

This cumulative effects assessment describes the potential cumulative effects resulting from the interaction of residual effects of construction and operation of the Project 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 in an area or system due of 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, such as an increase in employment, increase in property taxes, security of natural gas supply, and ability to meet future natural gas demands, have not been assessed in the cumulative effects assessment.

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:

1. existing infrastructure, facilities, and activities as determined from available data sets
2. the proposed Project
3. 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. The decommissioning and abandonment of the Project is another event that is beyond the temporal boundaries of the cumulative effects assessment and therefore has not been assessed.

6.2 STUDY BOUNDARIES

Spatial

To make conservative assumptions about the magnitude and probability of possible effects, a 100 m boundary around the pipeline was used for the cumulative effects assessment. The 100 m boundary has been found, through previous pipeline construction experience, to be appropriate for commonly encountered net effects of erosion, noise, dust, air quality and safety.

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:

1. ER and technical design – 2015 to 2021
2. Construction – 2021/2022
3. Operation and Maintenance - 2022 to 2072*

**Fifty years of pipeline 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: 2022 and 2027. The year 2022 was selected to represent the construction period, and the year 2025 was selected to represent the operation and maintenance period. Forecasting beyond 2025 increases the uncertainty in predicting whether Projects will proceed, and the effects associated with these Projects.

6.3 PROJECT INCLUSION LIST

As part of the study of cumulative effects, projects that are either currently existing, and those that have been approved and are scheduled (or are likely to be scheduled) during the construction period and early operation and maintenance of the Project were reviewed and added to the project inclusion list. The 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 in the spatial and temporal study boundaries. The following resources were reviewed:

- Canadian Environmental Assessment Registry (CEA Agency 2020)
- Environmental Assessment Projects by Category (Government of Ontario 2021a)
- Renewable Energy Approval Projects (2021b)
- Ontario's Highway Program (MTO n.d.)
- Instructure Ontario Projects – Interactive Map (IO, Government of Ontario n.d.)
- Major Facilities Applications (CER 2020)
- Consultation with the Greenstone Municipal Staff

Based on a review of the above-referenced resources, no new developments have been proposed for this area. As such, the Project Inclusion List, Table 6.1 below, outlines the two projects that are in closest proximity to proposed pipeline*:

Table 6.1: Project Inclusion List for Cumulative Effects

Project Name	Project Location	Owner	Project Description	Interaction with the Proposed Pipeline
Kenogamisis Lake Bridges	Highway 11 (4 km northeast of the Project)	MTO	Rehabilitation of two bridges located 2 km and 5 km east of Geraldton.	The build-out and operation of the Project will overlap with the bridge rehabilitation projects, set to commence in 2022.
Greenstone Mine Project	Located approximately 4 km south of Geraldton, at the intersection of Provincial Highway 584 and Trans-Canada Highway 11.	Greenstone Gold Mines GP Inc.	Greenstone Gold Mines GP Inc. is advancing on plans to design, construct, and operate an open-pit gold mine, processing plant, and ancillary facilities. Project infrastructure will include a process plant operating 365 days per year and a mill with throughput averaging 27,000 tonnes per day. The overall Project schedule will consist of the following phases: construction (up to 3 years), operation (up to 15 years), and closure, (to take place after 16 to 20 years of operation).	Construction of the Greenstone Mine commenced in 2021 and is set to be ongoing for 3 years, with ore stockpiling commencing after the first year of construction. The project is projected to be in operation for 16-20 years. The construction and operation of the pipeline will overlap the construction and operation of the Greenstone Mine.

* The developments outlined in the Table 6-1 are outside the 100 m study boundary but have been included in the Cumulative Effects Analysis for discussion purposes.

6.4 ANALYSIS OF CUMULATIVE EFFECTS

Sections 4.1- 4.3 of the ER consider the potential impacts of the Project on specific features and conditions and propose mitigation and protective measures to eliminate or reduce the potential impacts. The cumulative effects assessment evaluates the significance of residual impacts (after mitigation) of the Project along with the effects of other unrelated Projects.

Year 2022: Construction

The Greenstone Mine Project as well as the Kenogamisis Lake Bridges rehabilitation, on Highway 11, will be under construction during the time of construction of the pipeline. Renovations to the Geraldton Public Secondary School and the expansion of the BA Parker Public Elementary School, located at 500 Second Street W (200 m from the centre line of the Project), are expected to be completed 6 months prior to construction of the pipeline. The expansion and improvement of the schools is underway, and the current estimated competition date is September 2021 (Government of Ontario n.d.). As these projects are expected to be completed up to 6 months prior to the construction of the pipeline, they are not included as part of this analysis of cumulative effects. No additional Projects were identified in the area that may have a high probability of proceeding just prior to or concurrent with construction. It is assumed, however, that improvements to municipal infrastructure such as bridges, culverts, drains or roads could occur in the future.

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

The pipeline and both concurrent projects will be taking place in or adjacent to Highway 11. Residents and businesses will experience temporary disruption of use and access to the Highway. The projects may also disrupt, or place added pressure on community services and infrastructure. Coordination of services and materials in the community will, therefore, be required to maintain accessibility for the residents.

Mitigation and protective measures for erosion control are outlined in Section 5. Provided that concurrent Projects follow mitigation measures like those outlined in this report, the probability of erosion control failure occurring concurrently is low and the magnitude of such an event would be low. As such, adverse residual effects on the natural environment from erosion are not anticipated to be significant.

Vegetation removal during construction of the pipeline may be required along the boundary of the road allowances and the cross-country portion at the south end of the route. If the concurrent Project follow mitigation measures like those outlined in this report, cumulative effects on vegetation are not anticipated to be significant.

Potential residual effects on wildlife and wildlife habitat associated with construction of the Project are accidental direct mortality, habitat removal and sensory disturbance. In the event of significant Project-related wildlife deaths, the MNRF will 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. Regarding wildlife habitat removal, the preferred route is a previously

developed site containing minimal natural wildlife habitat. If concurrent Projects follow mitigation measures like those outlined in this report, cumulative effects on wildlife habitat are not anticipated to be significant. Provided that the above measures are undertaken, adverse cumulative effects on wildlife and wildlife habitat will be of low probability and will be mitigated as coordinated through the MNRF, and therefore are not anticipated to be significant.

Potential residual effects on air quality associated with construction of the Project and concurrent projects are an increase in air pollutants from operation of vehicles and equipment, and an increase in dust from construction activities. Provided that the concurrent projects follow mitigation measures like those outlined in this report, cumulative effects will be of low magnitude and reversible. Therefore, adverse residual cumulative effects on air quality are not anticipated to be significant.

As construction of the Project and concurrent projects will cause noise and vibration, cumulative effects may occur. Provided that the concurrent projects follow noise and vibration reduction practices like those outlined in this report, cumulative effects will be of low magnitude and reversible. Therefore, adverse residual cumulative effects on the acoustic environment are not anticipated to be significant.

Year 2025: Operation and Maintenance

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

1. Road works: Future road rehabilitation and resurfacing
2. Water works: Future installation of water and wastewater pipelines
3. The on-going operation of the Greenstone Mine Project

Operation and maintenance of the proposed Project 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 be necessitated, this is the only anticipated instance when the Project would have potential temporary impacts during its operation.

During the operation phase of the Project, Enbridge Gas will conduct internal inspections on the pipeline system to determine if anomalies such as cracks, corrosion, or dents may be present. If an anomaly is dedicated, subsequent excavation along a section of the pipe will be required to confirm and field verify if maintenance work is required. This is known as an integrity dig. If necessitated, it can be assumed that during an integrity dig, the operation of construction vehicles and daylighting of the pipe may have potential impacts on the surrounding environment. These impacts, however, would be temporary and easily mitigated or reduced by following standard mitigation measures. While there is a potential that an integrity dig may occur during the operational phase, the likelihood of one taking place is low given the conditions of the natural environment in which the pipeline is situated and the modern technology that the pipeline will be using.

Any operation and maintenance activities undertaken by Enbridge Gas, such as an integrity dig, will be completed in co-ordination with the Enbridge Gas Environmental Planning Team and will consider any potential impacts on natural heritage and the 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 and operation of the pipeline. Communications with the Municipality of Greenstone regarding the town of Geraldton was used to assess the potential for additive and interactive effects of the Project and other developments on environmental and socio-economic features.

It was determined that two additional Projects are planned to occur during the construction of the pipeline in 2022: the Greenstone Mine Project and the Kenogamisis Lake Bridges rehabilitation. Improvements to municipal infrastructure such as additional bridges, culverts, drains, or roads may also occur during operation of the pipeline. 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 be significant.

7.0 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. With this in mind, 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 Environmental Construction Plan (ECP) detailing construction activity. The ECP should also include site and feature specific mitigation. The ECP 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 pipeline route should be done approximately one year after construction 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

Monitoring of potential effects on exposed soils should occur during construction by Enbridge Gas' on-site inspection team. Restored bank slopes should be inspected one year after construction for erosion, and restoration measures should be implemented as necessary.

7.1.2 Watercourse Crossings

Watercourse crossings have the potential to affect fish, fish habitat, and water quality. Enbridge Gas' on-site inspection team should oversee all watercourse crossings and confirm that work is conducted as outlined as per relevant permits and as per mitigation outlined in Table 5.1.

7.1.3 Groundwater

Prior to construction, an independent hydrogeologist should review local hydrological conditions to determine the need for water wells to be monitored and develop a well monitoring program, as outlined in Section 4.1.3.

7.1.4 Vegetation

For at least one year after construction, planted vegetation should be inspected for survival. Dead and diseased vegetation should be replaced in areas of severe dieback or in areas with important environmental functions (e.g., riparian or slope cover).

7.1.5 Species at Risk

Should SAR be identified during field investigations, construction monitoring may need to be undertaken. The exact nature of monitoring will be determined in consultation with the MECP and DFO and will depend on the species present.

7.1.6 Landowner and Community Relations Program

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' on-site inspection team should also monitor the contractors' implementation of the TMP, to see that site access to residences and businesses has been maintained and that traffic is not being unnecessarily interrupted.

7.1.7 Cultural Heritage

As discussed in section 4.3.10, the archaeological assessment is documented in the CHAR (Appendix E). Details of mitigation measures to be taken including baseline vibration monitoring where construction activities will occur in 50 m of one of the thirteen identified structures can be found in the CHAR. Further assessment to refine the areas of potential impact may be beneficial as ground movements induced by construction vibration are found to dissipate with distance from the source.

7.1.8 Municipal Roads

Municipal roads affected by pipeline construction should be restored to their pre-construction condition in consultation with municipal engineers. Municipality of Greenstone Public Works staff should be given an opportunity to inspect any repairs or modifications. For a period of one year after construction (first year of operations), roads should be monitored following a heavy rain event and following spring runoff to check if erosion, bank slumping, road subsidence or major rutting has occurred because of the construction

activities. As appropriate, affected roadside ditches and drains would be repaired and monitored to check that they are functioning properly.

7.2 CONTINGENCY PLANS

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

The following unexpected events require contingency planning during construction: adverse weather causing watercourse sedimentation, human error causing accidental spills, and the discovery of unexpected finds. Although unexpected problems are not anticipated to occur during construction, Enbridge Gas and the pipeline contractor should be prepared to act when unexpected events occur. Construction personnel should be made aware of and know how to implement contingency measures.

7.2.1 Construction Delays

Delays in the construction schedule may result from poor field conditions generated by adverse weather. If a change in the construction schedule is necessary, contingency measures should be implemented as outlined in Table 5.1.

7.2.2 Watercourse Sedimentation

Even with properly installed erosion and sedimentation control measures, extreme runoff events could result in collapse of silt fencing, overflow or bypass of barriers, slope or trench failures and other problems which could lead to sedimentation of watercourses. If sedimentation of a watercourse occurs, the contingency measures outlined in section 4.1.1 should be implemented.

7.2.3 Accidental Spills

During construction, accidental spill of fluids may occur. The impact of the spill will depend upon the type of fluid, 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. If necessary, the MECP Spills Action Center should be notified at 1-800-268-6060.

A Spills Response Plan should be developed by the contractor, 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. Should a spill occur in the project area the spill response contingency plan should be implemented. Specifics of the contingency plan should be documented on site.

7.2.4 Inadvertent Fluid Release during Horizontal Directional Drillings

If watercourses are crossed using an HDD technique, the nature features should be monitored continuously by qualified personnel. An emergency response and contingency plan for inadvertent fluid release should be developed and implemented. At the very least, the plan should address containment, clean-up and remediation, alternative drilling/crossing plans, disposal of waste materials, monitoring, and reporting.

7.2.5 Unexpected Finds: Archaeological or Heritage Resources and Unknown Contaminated Soils

Should previously unidentified archaeological or heritage resources be uncovered or suspected of being uncovered during construction, ground disturbance in the find location should cease immediately. An archaeologist licensed in the Province of Ontario should be notified immediately. As needed, the licensed archaeologist will consult with the MHSTCI, and other relevant stakeholders, i.e., Indigenous communities, to develop a site-specific response plan. A site-specific response plan for the newly identified archaeological or heritage resource 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. In the event that human remains are uncovered or suspected of being uncovered during ground disturbance, the above measures should be implemented along with notifying local police, the coroner's office, and the Cemeteries Regulation Unit of the Ontario Ministry of Government and Consumer Services (1-800-889-9768).

If previously unknown materials or contaminated soils are uncovered or suspected of being uncovered, particularly during pipeline decommissioning, construction in the find location should cease immediately. In such an instance, Enbridge Gas should retain expert advice on assessing and developing a plan to include soil sampling, handling, disposal, and remediation.

8.0 CONCLUSION

The environmental study investigated data on the physical, biophysical, and socio-economic environment in the Project area, including the proposed Project facilities. In the opinion of Stantec, the Project will have minimal potential for environmental effects as most sensitive features were avoided at the pipeline route selection stage. The recommended program of supplemental studies, and standard mitigation and protection measures are considered appropriate to protect the features anticipated to be encountered. Monitoring and contingency measures will check that mitigation and protective measures have been effective in both the short and long term.

With the implementation of the recommendations in this ER, on-going communication and consultation, and adherence to related permit, regulatory and/or legislative requirements, any adverse residual environmental and/or socio-economic effects of this Project are not anticipated to be significant.

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Statistics Canada. 2017.b. *Longlac [Population centre], Ontario and Ontario [Province]* (table). *Census Profile*. 2016 Census. Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released November 29, 2017. Available online: https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E . Accessed May 2021.

Statistics Canada. 2017.c. *Greenstone, MU [Census subdivision], Ontario and King [Population centre], Ontario* (table). *Census Profile*. 2016 Census. Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released November 29, 2017.Avaiable online: https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E. Accessed May 2021.

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APPENDIX A
FIGURES

\\Ca0220-ppfss01\work_group\01609\active\60960975\drawing\MXD\APC\ReportFigures\Environmental_Report\AppendixA\160961408_Fig_A1_StudyArea_20210730.mxd
Revised: 2021-07-30 By: CLee

N

Marie Lake
WC- W
Reesor Creek
Dionne Lake
Annette Lake
Dafoe Lake
Ashton Lake
Highway 584
Cecile Lake
WC- X
Yvonne Lake
Pipeline Road
Emilie Lake
Quintuplet Lake
Dionne Creek
WC-Y
Hogarth Avenue West
Geraldton
1St Street West
Main Street
1St Street East
Hardrock Creek
Magnet Creek
Kenogamisis Lake (Outlet Basin)
Barton Bay (West)
WC- A
Barton Bay (East)
Old Arena Road
Michael Power Blvd.
WC- C
WC- B
GCP-1
GCP-3
GCP-2
WC- E
Mosher Lake
WC- GH
Glory Hole
WC- F
WC- H
Trans-Canada Highway 11
Hardrock Road
Kenogamisis Lake (Central Basin)
Lahtis Road
Pond A
WC-J1
WC- G
SWP3
SWP4
SW Arm Tributary
Marron Lake
SWP1
WC-L
SWP2
Kenogamisis Lake (Southwest Arm)

0 0.75 1.5 Km
1:30,000

499000 500000 501000 502000 503000 504000 505000 506000
5512000 5511000 5510000 5509000 5508000 5507000 5506000 5505000 5504000 5503000 5502000

July 2021
160961408

Stantec

Notes

1. Coordinate System: NAD 1983 UTM Zone 16N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2015.

Legend

- Study Area
- Existing Enbridge Gas Station
- Trans Canada Pipeline

Existing Features

- Contour Line (10 m intervals)
- Highway
- Major Road
- Local Road
- Railway
- Watercourse- Permanent
- Watercourse- Intermittent
- Provincial Park
- Waterbody

Client/Project

Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix A

Figure No.

A1

Title

Study Area

\\Ca0220-ppfss01\work_group\01609\active\60960975\drawing\MXD\APC\ReportFigures\Environmental_Report\AppendixA\160961408_Fig_A2_AlternativeRoutes_20210730.mxd
Revised: 2021-07-30 By: CLee

N

Section 1

Section 2

Section 3

Highway 584

Marie Lake

Annette Lake

Dafoe Lake

Dionne Lake

Ashton Lake

Cecile Lake

Yvonne Lake

Emilie Lake

Quintuplet Lake

Pipeline Road

Hogarth Avenue West

Geraldton

1St Street West

Main Street

Kenogamisis Lake (Outlet Basin)

Barton Bay (West)

Barton Bay (East)

Michael Power Blvd.

GCP-1

GCP-3

GCP-2

Mosher Lake

Glory Hole

Trans-Canada Highway 11

Old Arena Road

Hardrock Road

Lahtis Road

Pond A

Kenogamisis Lake (Central Basin)

SWP4

SWP3

SWP1

SWP2

Marron Lake

Kenogamisis Lake (Southwest Arm)

0 0.75 1.5 Km

1:30,000

July 2021
160961408

Stantec

Notes
1. Coordinate System: NAD 1983 UTM Zone 16N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2015.

Legend

- Study Area
- Existing Enbridge Gas Station
- Proposed Greenstone Mine Processing Facility
- Preferred Route

Alternative Routes

- Alternative 1A
- Alternative 2A
- Alternative 2B
- Alternative 2C
- Alternative 3A

Existing Features

- Contour Line (10 m intervals)
- Highway
- Major Road
- Local Road
- Railway
- Trans Canada Pipeline
- Watercourse- Permanent
- Watercourse- Intermittent
- Provincial Park
- Waterbody

Client/Project
Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix A

Figure No.
A2

Title
Alternative Routes

\\Ca0220-ppfs01\work_group\01609\active\60966975\drawing\MXD\APC\ReportFigures\Environmental_Report\AppendixA\160961408_Fig_A3_PreliminaryPreferredRoute_20210730.mxd
Revised: 2021-07-30 By: CLee

N

Marie Lake
WC- W
Reesor Creek
Dionne Lake
Annette Lake
Dafoe Lake
Ashton Lake
Highway 584
Cecile Lake
WC- X
Yvonne Lake
Pipeline Road
Emilie Lake
Quintuplet Lake
Dionne Creek
WC-Y
Hogarth Avenue West
Geraldton
1St Street West
Main Street
1St Street East
Hardrock Creek
Magnet Creek
Kenogamisis Lake (Outlet Basin)
Barton Bay (West)
WC- A
Barton Bay (East)
Old Arena Road
Michael Power Blvd.
WC- C
WC- B
GCP-1
GCP-3
GCP-2
WC- E
Mosher Lake
Glory Hole
WC- GH
WC- F
WC- H
Trans-Canada Highway 11
Hardrock Road
Lahtis Road
Pond A
WC- J1
Kenogamisis Lake (Central Basin)
WC- G
SWP3
SWP4
SW Arm Tributary
Marron Lake
SWP1
WC- L
SWP2
Kenogamisis Lake (Southwest Arm)

0 0.75 1.5 Km
1:30,000

July 2021
160961408

Legend

- Study Area
- Existing Enbridge Gas
- Proposed Greenstone Mine Processing Facility
- Preliminary Preferred

Existing
- Contour Line (10 m
- Highway
- Major Road
- Local Road
- Railway
- Trans Canada
- Watercourse-
- Watercourse-

- Provincial Park
- Waterbody

Stantec

Notes

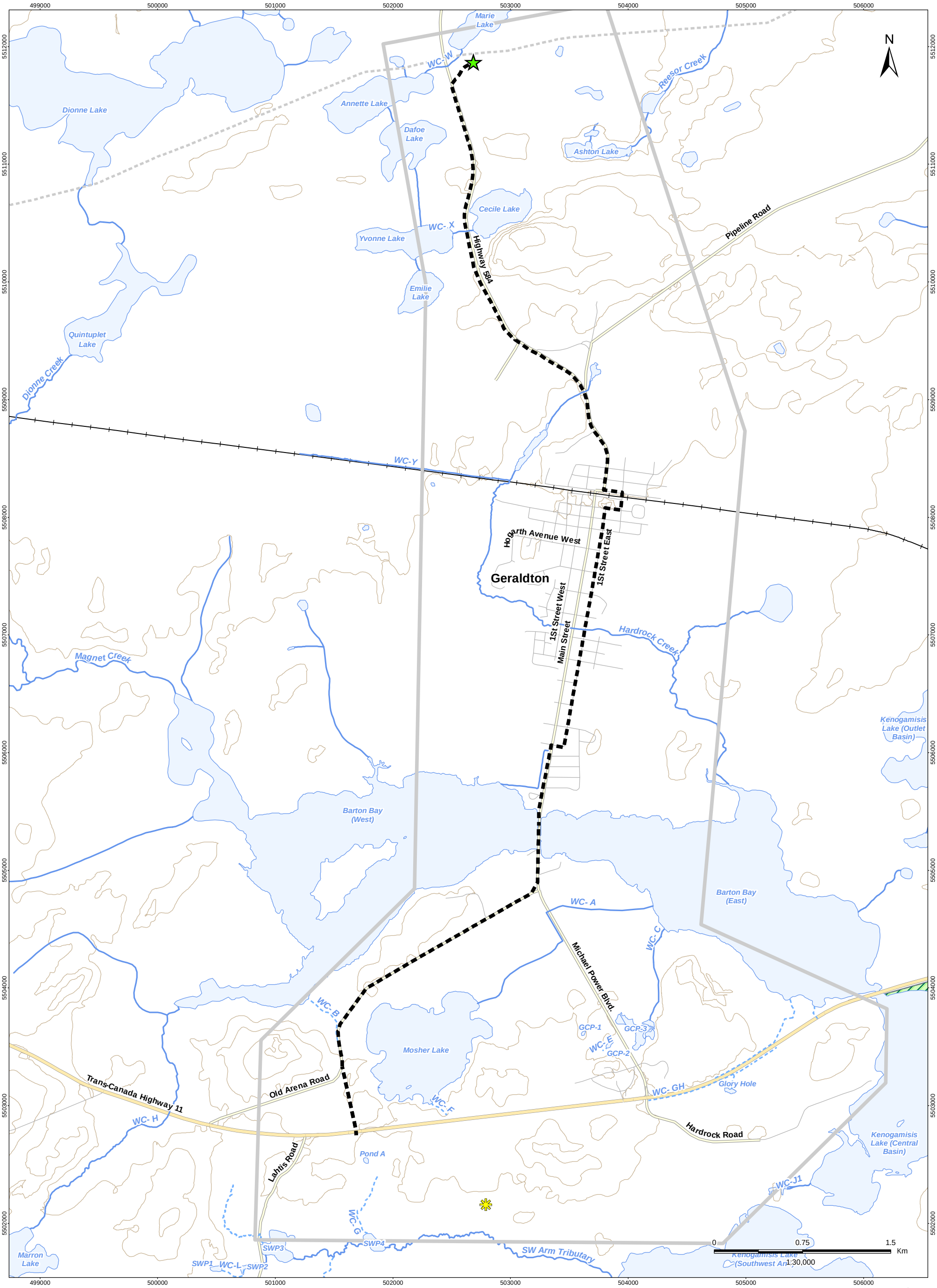
1. Coordinate System: NAD 1983 UTM Zone 16N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2015.

Client/Project
Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix A

Figure No.
A3

Title
Preliminary Preferred Route

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Revised: 2021-07-30 By: CLee



July 2021
160961408

Stantec

Notes

1. Coordinate System: NAD 1983 UTM Zone 16N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2015.

Legend

- Study Area
- Existing Enbridge Gas
- Proposed Greenstone Mine Processing Facility
- Preferred Route

Existing

- Contour Line (10 m
- Highway
- Major Road
- Local Road
- Railway
- Trans Canada
- Watercourse-
- Watercourse-
- Provincial Park
- Waterbody

Client/Project

Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix A

Figure No.

A4

Title

Preferred Route

APPENDIX B
CONSULTATION

APPENDIX B1
PHASE II: INITIAL STUDY CONTACT LISTS

Appendix B1: Phase II: Initial Study Contact Lists

Table B1.1: Indigenous Contacts

Title	First Name	Last Name	Nation	Department	Position	Address	City	Prov	Postal	Phone	Email
Chief	Sonny	Gagnon	Aroland First Nation #242			P.O. Box 10	Aroland First Nation	ON	P0T 1B0	807-329-5970	arolandfirstnation@yahoo.ca
Chief	Allen	Towegishig	Long Lake #58 First Nation			209 Otter Street, P.O. Box 609	Longlac	ON	P0T 2A0	807-876-2292 x224	redfox001_2@hotmail.com allen.towegishig@longlake58fn.ca
Chief	Celia	Echum	Ginoogaming First Nation			101 Poplar Place	East Longlac	ON	P0T 2A0	807-876-2242	celia.echum@ginoogamingfn.ca
Chief	Troy	DeLaRonde	Red Sky Métis Independent Nation			406 East Victoria Avenue	Thunder Bay	ON	P7C 1A5	807-623-4635	troy@rsmin.ca
Mr.	William	Gordon	Métis Nation of Ontario	MNO Greenstone Métis Council	President	P.O. Box 825 211-401R 4th Avenue	Geraldton	ON	P0T 1M0	807-854-1172	torch50@live.ca

Table B1.2: Agency Contacts

Title	First Name	Last Name	Agency	Department	Position	Address	City	Prov	Postal	Phone	Email
FEDERAL AGENCIES											
			Aboriginal Affairs and Northern Development Canada	Lands and Economic Development	Environmental Assessment Coordination Environment Unit	25 St. Clair Avenue East, 8th Floor	Toronto	ON	M4T 1M2		EACoordination_ON@aandc-aadnc.gc.ca
Mr.	Aaron	Stadnyk	Canadian National Railway	CN Environment	Environmental Officer	4 Welding Way (off Administration Road) P.O. Box 1000	Vaughan	ON	L4K 1B9	Phone: 905-669-3377 Cell: 416-575-3647	aaron.stadnyk@cn.ca
PROVINCIAL AGENCIES AND AUTHORITIES											
Mr.	Gavin	Battarino	Ministry of the Environment and Climate Change	Project Coordination	Project Officer	2 St. Clair Avenue West, Floor 12A	Toronto	ON	M4V 1L5	416-212-4279	gavin.battarino@ontario.ca
Ms.	Lisa	Myslicki	Infrastructure Ontario	Realty Services, Environmental Services	Environmental Advisor	1 Dundas Street West, Suite 2000	Toronto	ON	M5G 2L5	416-212-3768	lisa.myslicki@infrastructureontario.ca
Mr.	Kevin	Tarini	Infrastructure Ontario	Leasing Services	Leasing Services Manager	1 Dundas Street West, Suite 2000	Toronto	ON	M5G 2L5	705-564-7206	kevin.tarini@infrastructureontario.ca
Mr.	Andrew	Cotter	Infrastructure Ontario		Portfolio Performance Manager – Thunder Bay	421 James Street South, Suite 103	Thunder Bay	ON	P7E 2V6	807-473-3063	andrew.cotter@infrastructureontario.ca
Ms.	Ashley	Johnson	Ministry of Aboriginal Affairs	Consultation Unit, Aboriginal Relations and Ministry Partnerships Division	Advisor	160 Bloor Street, 9th Floor	Toronto	ON	M7A 2E6	416-326-6313	ashley.johnson@ontario.ca
Mr.	Roman	Dorfman	Hydro One Networks Inc.	Facilities and Real Estate Services	Sr. Real Estate Coordinator	185 Clegg Road	Markham	ON	L6G 1B7	905-946-6243	roman.dorfman@hydroone.com
Mr.	Ali	Veshkini	Ministry of Community Safety and Correctional Services		Director (Acting)	George Drew Building 25 Grosvenor Street, 17th Floor	Toronto	ON	M7A 2G8	416-314-6683	ali.veshkini@ontario.ca
Mr.	Damian	Dupuy	Ministry of Economic Development, Employment and Infrastructure	Cabinet Office Liaison and Policy Support Unit	Manager	900 Bay Street, 6th Floor, Hearst Block	Toronto	ON	M7A 2E1	416-326-0938	damian.dupuy@ontario.ca

Table B1.2: Agency Contacts

Title	First Name	Last Name	Agency	Department	Position	Address	City	Prov	Postal	Phone	Email
Mr.	Michael	Helfinger	Ministry of Economic Development, Employment and Infrastructure	Cabinet Office Liaison and Policy Support Unit	Senior Policy Advisor	900 Bay Street, 6th Floor, Hearst Block	Toronto	ON	M7A 2E1	416-325-6519	michael.helfinger@ontario.ca
Ms.	Jennifer	Heneberry	Ministry of Energy	First Nation and Metis Policy and Partnerships Office	Manager (Acting)	77 Grenville Street, 6th Floor	Toronto	ON	M7A 2C1	416-327-2116	jennifer.heneberry@ontario.ca
Ms.	Cheryl	O'Donnell	Ministry of Energy	Strategic Policy Division	Senior Policy Advisor	77 Grenville Street, 6th Floor	Toronto	ON	M7A 2C1	416-327-7302	cheryl.o'donnell@ontario.ca
Ms.	Lindsay	Wright	Ministry of Energy	Transmission Policy Unit	Senior Policy Advisor	77 Grenville Street, 6th Floor	Toronto	ON	M7A 2C1	416-314-6204	lindsay.wright@ontario.ca
Mr.	Mike	Grant	Ministry of Northern Development and Mines	Thunder Bay Office	Regional Supervisor	435 James Street South, Suite B002	Thunder Bay	ON	P7E 6S7	807-475-1746	mike.grant@ontario.ca
Ms.	Elaine	Lynch	Ministry of Tourism, Culture and Sport	North Region	Manager	435 James Street South, Suite 334	Thunder Bay	ON	P7E 6S7	807-475-1635	elaine.lynch@ontario.ca
Ms.	Anna	Ilnyckyj	Ministry of Tourism, Culture and Sport	Sport, Recreation and Community	Director	777 Bay Street, 23rd Floor, Suite 2302	Toronto	ON	M7A 1S5	416-326-0825	anna.ilnyckyj@ontario.ca
Ms.	Cindy	Brown	Ministry of Transportation	Corridor Management	Head	615 South James Street, 3rd Floor	Thunder Bay	ON	P7E 6P6	807-473-2127	cindy.brown2@ontario.ca
Ms.	Linda	Trapp	Ontario Parks	MacLeod Provincial Park	Park Superintendent	MNR Terrace Bay Area Office P.O. Box 280	Terrace Bay	ON	P0T 2W0	807-825-3403	linda.trapp@ontario.ca
OPCC MEMBERS											
Ms.	Zora	Crnojacki	Ontario Energy Board	Ontario Pipeline Coordinating Committee	Project Advisor Applications & Regulatory Audit	2300 Yonge Street, 26th Floor P.O. Box 2319	Toronto	ON	M4P 1E4	416-440-8104	zora.crnojacki@oeb.gov.on.ca
Mr.	Arthur	Churchyard	Ministry of Agriculture, Food, and Rural Affairs	Ontario Pipeline Coordinating Committee	Rural Planner	1 Stone Road West, 3rd Floor	Guelph	ON	N1G 4Y2	613 475 4764	arthur.churchyard@ontario.ca
Mr.	Chris	Schiller	Ministry of Culture, Tourism and Sport	Ontario Pipeline Coordinating Committee	Manager Cultural Services Unit	400 University Avenue, 4th Floor	Toronto	ON	M7A 2R9	416-314-7144	chris.schiller@ontario.ca
Mr.	Tony	Difabio	Ministry of Transportation	Ontario Pipeline Coordinating Committee	Senior Planner and Policy Advisor Corridor Management and Property Section	301 St. Paul Street, 2nd Floor	St. Catharines	ON	L2R 7R4	905-704-2656	tony.difabio@ontario.ca
Mr.	Oscar	Alonso	Technical Standards and Safety Authority	Ontario Pipeline Coordinating Committee	Fuels Safety Engineer	3300 Bloor Street West, 14th Floor – Centre Tower	Toronto	ON	M8X 2X4	416-734-3353	oalonso@tssa.org
Ms.	Sally	Renwick	Ministry of Natural Resources and Forestry	Ontario Pipeline Coordinating Committee	Team Lead (Acting) Environmental Planning	300 Water Street, 5th Floor	Peterborough	ON	K9J 3C7	705-755-5195	sally.renwick@ontario.ca
Ms.	Victoria	Kosny	Ministry of Municipal Affairs and Housing – North (Thunder Bay)	Ontario Pipeline Coordinating Committee	Manager Community Planning and Development	435 James Street S, Suite 223	Thunder Bay	ON	P7E 6S7	807-473-3025	victoria.kosny@ontario.ca
Ms.	Paula	Allen	Ministry of Environment and Climate Change (Northern Regional Contact)	Ontario Pipeline Coordinating Committee	Supervisor Air, Pesticides and Environmental Planning	199 Larch Street, 12th Floor	Sudbury	ON	P3E 5P9	705-564-3273	paula.allen@ontario.ca
Ms.	Emma	Sharkey	Ministry of Energy	Ontario Pipeline Coordinating Committee	Senior Advisor Aboriginal Energy Policy	77 Grenville Street, 6th Floor	Toronto	ON	M7A 2C1	416-327-2116	emma.sharkey@Ontario.ca

Table B1.2: Agency Contacts

Title	First Name	Last Name	Agency	Department	Position	Address	City	Prov	Postal	Phone	Email
Ms.	Marlo	Spence Lair	Ministry of Energy	Ontario Pipeline Coordinating Committee	Senior Policy Advisor Regulatory and Agency Policy Unit	77 Grenville Street, 5th Floor	Toronto	ON	M7A 2C1	416-212-7489	marlo.spencelair@ontario.ca
Mr.	Patrick	Grace	Infrastructure Ontario	Ontario Pipeline Coordinating Committee	Director/Project Coordinator Land Transactions- Hydro Corridors & Public Works	1 Dundas Street West, Suite 2000	Toronto	ON	M5G 2L5	416-327-2959	patrick.grace@infrastructure.ca
Mr.	Joseph	Vecchiolla	Ministry of Economic Development, Employment and Infrastructure	Ontario Pipeline Coordinating Committee	Policy Lead Realty Policy Branch	777 Bay Street, 4th Floor, Suite 425	Toronto	ON	M5G 2E5	416-325-1561	joseph.vecchiolla@ontario.ca
MUNICIPAL											
Mr.	Roy	Sinclair	Municipality of Greenstone		CAO	1800 Main Street P.O. Box 70	Geraldton	ON	P0T 1M0	807-854-1100 x2026	roy.sinclair@greenstone.ca
Councillor	Bill	Assad	Municipality of Greenstone	Geraldton Ward		1800 Main Street P.O. Box 70	Geraldton	ON	P0T 1M0	807-854-1100	bill.assad@greestone.ca
Councillor	Eric	Pietsch	Municipality of Greenstone	Geraldton Ward							eric.pietsch@greenstone.ca
Councillor	Matthew	Donovan	Municipality of Greenstone	Nikina Ward							matthew.donovan@greenstone.ca
Councillor	Claudette	Trottier	Municipality of Greenstone	Beardmore Ward							claudette.trottier@greenstone.ca
Councillor	James	McPherson	Municipality of Greenstone	Longlac Ward							james.mcpherson@greenstone.ca
Councillor	Sylvie	Lemieux	Municipality of Greenstone	Longlac Ward							sylvie.lemieux@greenstone.ca
Councillor	Armand	Giguere	Municipality of Greenstone	Rural East Ward							agiguere@tbaytel.net
Councillor	Andre	Blanchard	Municipality of Greenstone	Rural West ward							andre.blanchard@greenstone.ca
Mr.	Stephen	Mykulak	Municipality of Greenstone	Protective and Planning Services	Director	1800 Main Street P.O. Box 70	Geraldton	ON	P0T 1M0	807-854-1100 x2027	stephen.mykulak@greenstone.ca
Mr.	Brian	Aaltonen	Municipality of Greenstone	Public Services	Director	1800 Main Street P.O. Box 70	Geraldton	ON	P0T 1M0	807-854-1100 x2060	brian.aaltonen@greenstone.ca
Chief	Brad	Lemaich	Municipality of Greenstone		Fire Chief	1800 Main Street P.O. Box 70	Geraldton	ON	P0T 1M0	807-854-1100 x2007	brad.lemaich@greenstone.ca
Mayor	Renald	Beaulieu	Municipality of Greenstone			1800 Main Street P.O. Box 70	Geraldton	ON	P0T 1M0	807-854-1100	renald.beaulieu@greenstone.ca
Ms.	Gabrielle	Lecuyer	Municipality of Greenstone		Clerk	1800 Main Street P.O. Box 70	Geraldton	ON	P0T 1M0	807-854-1100 x2059	gabrielle.lecuyer@greenstone.ca
Dr.	David	Williams	Thunder Bay District Health Unit		Medical Officer of Health	999 Balmoral Street	Thunder Bay	ON	P7B 6E7	807-625-5900	
Mr.	Edgar	Lavoie	Greenstone History		President	P.O. Box 938	Geraldton	ON	P0T 1M0		edgarlavoie@hotmail.com

Table B1.3: Landowner Contacts

First Name	Surname	City/Town
J.K.	B.	Geraldton
James	M.	Longlac
Hayley	K.	
Ron	A.	
Dina	Q.	
Laura	B.	
Claude	F.	
Larissa	M.	
Jose	B.	
Jean	C.	
Marla	M.	
Cheryl	L.	
Pierre	C.	
William	G.	Geraldton
Oscar	D.	Geraldton
Francois	S.	Geraldton
Chris	W.	
Robert	P.	Geraldton
Andre	B.	
Wayne	A.	Geraldton
Jerry	J.	Geraldton
Jason	R.	Thunder Bay
Jim	M.	Geraldton
George J	H.	Geraldton
Brian	D.	

APPENDIX B2
PHASE IV: STUDY RE-COMMENCEMENT CONTACT LISTS

Table B2.1: Indigenous Contacts

TITLE	FIRST NAME	SURNAME	ORGANIZATION	POSITION/DEPARTMENT	ADDRESS	CITY /TOWN	PROVINCE	Postal Code	E-MAIL	NoC Letter
	Sheri	Taylor	Ginoogaming First Nation		P.O. Box 825 211-401R 4th Avenue	Longlac	ON	P0T 2A0	sheri.taylor@ginoogamingfn.ca	14-Jul-21
Chief	Dorothy	Towedo	Aroland First Nation		P.O. Box 10	Aroland	ON	P0T 1B0	chiefdorothytowedo@gmail.com	14-Jul-21
	John	Onabigon	Long Lake 58 First Nation	Economic Development Manager	209 Otter Street, P.O. Box 609	Long Lac	ON	P0T 2A0	john.onabigon@longlake58fn.ca	14-Jul-21
	Nicholas	Richard	Greenstone Metis Council	Consultation Assessment Advisor, Region 2	101 Poplar Place	Thunder Bay	ON	P7E 1B4	nicholasr@metisnation.org	14-Jul-21
	Donelda	DeLaRonde	Red Sky Independent Nation	Executive Director	406 East Victoria Avenue	Thunder Bay	ON	P7C 1A5	mda@rsmin.ca	14-Jul-21
	Frank	Hardy	Biinjitiwaabik Zaaging Anishinaabek (formerly Rocky Bay First Nation)	Lands & Resources Coordinator	501 Spirit Bay Road	Macdiarmid	ON	P0T 2B0		27-Jul-21
Chief	Theresa	Nelson	Animbiigoo Zaagi igan Anishinaabek		204 Main Street, P.O. Box 120	Beardmore	ON	P0T 1G0	tnelson@aza.ca	27-Jul-21

Table B2.2: Agency Contacts

Title	First Name	Surname	Organization	Department	Position	Address	City/Town	Province	Postal Code	Telephone	E-Mail	NoC (e-mail only)
FEDERAL AGENCIES												
	Sandro	Leonardelli	Environment and Climate Change Canada	Environmental Protection Operations - Ontario	Manager, Environmental Assessment Section	4905 Dufferin Street, 2nd Floor	Toronto	ON	M3H 5T4	416-749-5858	sandro.leonardelli@canada.ca	Email sent July 9, 2021
	Kim	Valentine	Impact Assessment Agency of Canada	Ontario Region	Administrative Clerk						Kimberly.Valentine@iaac-aeic.gc.ca	Added to the contact list August 24, 2021
	Anjala	Puvananathan	Impact Environmental Assessment Agency	Ontario Regional Office	Director	55 York Street, Suite 600	Toronto	ON	M5J 1R7	416-952-1575	anjala.puvananathan@canada.ca	Email sent July 9, 2021
To Whom it May Concern			Transport Canada					ON			enviroOnt@tc.gc.ca	Email sent July 9, 2021
To Whom it May Concern			Crown-Indigenous Relations and Northern Affairs Canada								aadnc.infopubs.aandc@canada.ca	Email sent July 9, 2021
	Aaron	Stadnyk	CN Environment	Environmental Officer		4 Welding Way, P.O. Box 1000	Vaughan	ON	L4K 1B9	416-575-3647	aaron.stadnyk@cn.ca	Email sent July 9, 2021
PROVINCIAL AGENCIES												
	Karla	Barboza	Ministry of Heritage, Sport, Tourism and Culture Industries	Heritage, Tourism and Culture Division	Team Lead - Heritage (Acting)	401 Bay Street	Toronto	ON	M7A 0A7	416-314-7120	Karla.barboza@ontario.ca	Email sent July 9, 2021
	Kevin	Green	Ministry of Environment, Conservation and Parks	Environmental Assessment Branch	Northern Species at Risk Specialist						kevin.green1@ontario.ca	Added to the contact list September 15, 2021.
	Mira	Majerovich	Ministry of Environment, Conservation and Parks	Environmental Assessment Branch, Northern Region	Regional Environmental Planner					807-707-5052	Mira.Majerovich@ontario.ca	Notice of Comm. sent August 11, 2021.
	Trina	Rawn	Ministry of Environment, Conservation and Parks	Thunder Bay District Office	Manager	3rd Flr Suite 331B, 435 James St S	Thunder Bay	ON	P7E 6S7	807-468-2734	trina.rawn@ontario.ca	Email sent July 9, 2021

Table B2.2: Agency Contacts

Title	First Name	Surname	Organization	Department	Position	Address	City/Town	Province	Postal Code	Telephone	E-Mail	NoC (e-mail only)
To Whom it May Concern			Ministry of Environment, Conservation and Parks	Source Protection Programs Branch		40 St.Clair Ave. W. 14th Floor	Toronto	ON	M4V 1M2		sourceprotectionscreening@ontario.ca	Email sent July 9, 2021
	Kathleen	O'Neil	Ministry of Environment, Conservation and Parks	Environmental Assessment and Permissions Branch	Director	135 St. Clair Ave. W, 1st Floor	Toronto	ON	M4V 1P5		Kathleen.Oneill@ontario.ca	Added to contact list July 8, 2021
	Erinn	Lee	Ministry of Environment, Conservation and Parks	Environmental Assessment Branch	Regional environmental Planner	135 St. Clair Ave. W, 1st Floor	Toronto	ON	M4V 1P5		Erinn.Lee2@ontario.ca	Added to contact list August 8, 2021
To Whom it May Concern			Ministry of Environment, Conservation and Parks								eanotification.nregion@ontario.ca	Notice of Comm. sent August 11, 2021.
	Joseph	Harvey	Ministry of Heritage, Sport, Tourism and Culture Industries	Heritage Planning Unit	Heritage Planner					613-242-3743	joseph.harvey@ontario.ca	Email sent July 19, 2022
	Lisa	Myslicki	Infrastructure Ontario	Realty Portfolio Planning	Environmental Specialist	1 Dundas Street West, Suite 2000	Toronto	ON	M5G 1Z3	416-557-3116	lisa.myslicki@infrastructureontario.ca	Email sent July 9, 2021
	Alex	Lye	Infrastructure Ontario	Specialist	Environmental Specialist	1 Dundas Street West, Suite 2000	Toronto	ON	M5G 1Z3	416-326-0483	alex.lye@infrastructureontario.ca	Email sent July 9, 2021
	Ainsley	Davidson	Infrastructure Ontario	Land Use Planning	Director	2 Dundas Street West, Suite 2000	Toronto	ON	M5G 1Z4	416-327-8018	ainsley.davidson@infrastructureontario.ca	Email sent July 9, 2021
	David	Cooper	Ministry of Agriculture and Food, Ministry of Rural Affairs	Land Use Policy & Stewardship	Manager	1 Stone Road West, 3rd Floor SE	Guelph	ON	N1G 4Y2	519-766-5990	david.cooper@ontario.ca	Email sent July 9, 2021
	Michele	Doncaster	Ministry of Agriculture and Food, Ministry of Rural Affairs	Land Use Policy & Stewardship	Policy Advisor	1 Stone Road West, 3rd Floor	Guelph	ON	N1G 4Y2	226-979-1552	michele.doncaster@ontario.ca	Email sent July 9, 2021
	Michael	Falconi	Ministry of Economic Development, Job Creation and Trade	Cabinet Office Liaison Unit, Policy Coordination Branch	Senior Manager	56 Wellesley Street West, 11th Floor	Toronto	ON	M5S 2S3	647-325-9535	michael.falconi@ontario.ca	Email sent July 9, 2021
	Omer	Omerdin	NDMNRF							705 280 7952	Omerdin.Omer@ontario.ca	Added to the contact list September 15, 2021
	Kimberly	McNaughton	Ministry of Natural Resources and Forestry	Nipigon District	Planner						kimberly.mcnaughton@ontario.ca	Added to the contact list September 2, 2021
	Heather	Nelson	Ministry of Natural Resources and Forestry	Thunder Bay District		435 James Street South, Suite B001	Thunder Bay	ON	P7E 6E3	807-475-1457	heather.nelson@ontario.ca	Email sent July 9, 2021
To Whom it May Concern			Ministry of Natural Resources and Forestry	Geraldton Field Office		Ontario Government Bldg, 208 Beamish Ave W, PO Box 640	Geraldton	ON	P0T 1M0	807-854-1030		Letter mailed July 20, 2021
	Tracey	Dawson-Kinnonen	Ministry of Energy, Northern Development and Mines	Strategic Support Unit	Manager	Willet Green Miller Centre, 2nd Flr, 933 Ramsey Lake Rd	Sudbury	ON	P3E 6B5	705-670-5806	tracey.dawson-kinnonen@ontario.ca	Email sent July 9, 2021
	Jennifer	Paetz	Ministry of Energy, Northern Development and Mines	Strategic Support Unit	Initiatives Coordinator	Willet Green Miller Centre, 2nd Flr , 933 Ramsey Lake Rd	Sudbury	ON	P3E 6B5	705-670-5918	jennifer.paetz@ontario.ca	Email sent July 9, 2021

Table B2.2: Agency Contacts

Title	First Name	Surname	Organization	Department	Position	Address	City/Town	Province	Postal Code	Telephone	E-Mail	NoC (e-mail only)
	Robert	Greene	Ministry of Community Safety and Correctional Services		Director (Acting)	George Drew Building, 25 Grosvenor Street, 17th Floor	Toronto	ON	M7A 2G8	416-327-1470	robert.greene@ontario.ca	Email sent July 9, 2021
To Whom it May Concern			Hydro One Networks Inc.								SecondaryLandUse@HydroOne.com	Email sent July 9, 2021
	Linda	Trapp	Ontario Parks	MacLeod Provincial Park	Park Superintendent	MNR Terrace Bay Area Office P.O. Box 280	Terrace Bay	ON	P0T 2W0	807-825-3403	linda.trapp@ontario.ca	Email sent July 9, 2021
	Kevin	Ellis	Ministry of Transportation	Corridor Management Secion	Senior Project Manager						Kevin.Ellis@ontario.ca	Added to the contact list October 5, 2021.
	Cindy	Brown	Ministry of Transportation	Corridor Management	Head	615 South James Street, 3rd Floor	Thunder Bay	ON	P7E 6P6	807-473-2127	cindy.brown2@ontario.ca	Email sent July 9, 2021
ONTARIO PIPELINE COORDINATING COMMITTEE												
	Zora	Crnojacki	Ontario Pipeline Coordinating Committee	Ontario Energy Board		2300 Younge Street, 26th Floor, PO Box 2319	Toronto	ON	M4P 1E4	416-440-8104	zora.crnojacki@oeb.ca	Email sent July 9, 2021
	Helma	Geerts	Ontario Pipeline Coordinating Committee	Ministry of Agriculture, Food and Rural Affairs		1 Stone Road West, 3rd Floor SE	Guelph	ON	N1G 4Y2	519-546-7423	Helma.Geerts@ontario.ca	Email sent July 9, 2021
	Dan	Minkin	Ontario Pipeline Coordinating Committee	Ministry of Heritage Sport Tourism and Culture Industries	Team Lead, Heritage	401 Bay Street	Toronto	ON	M7A 0A7	416-314-7147	dan.minkin@ontario.ca	Email sent July 9, 2021
	Tony	Di Fabio	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	Email sent July 9, 2021
	Kourosh	Manouchehri	Ontario Pipeline Coordinating Committee	Technical Standards and Safety Authority		345 Carlingview Drive	Toronto	ON	M9W 6N9	416-734-3539	kmanouchehri@tssa.org	Email sent July 9, 2021
	Sally	Renwick	Ontario Pipeline Coordinating Committee	Ministry of Natural Resources and Forestry	Team Lead, Land Use and Environmental Planning	300 Water Street	Peterborough	ON	K9J 8M5	705-755-5195	sally.renwick@ontario.ca	Email sent July 9, 2021
	Jason	McCullough	Ontario Pipeline Coordinating Committee	Ministry of Energy, Northern Development and Mines	Senior Advisor, Indigenous Energy Policy Unit	77 Grenville Street, 6th Floor	Toronto	ON	M7A 2C1	416-526-2963	Jason.McCullough@ontario.ca	Email sent July 9, 2021
	Dan	Delaquis									Dan.Delaquis@ontario.ca	Email sent July 9, 2021
	Cory	Ostrowka	Ontario Pipeline Coordinating Committee	Infrastructure Ontario	Environmental Specialist	1 Dundas Street West, Suite 2000	Toronto	ON	M5G 2L5	416-571-8294	cory.ostrowka@infrastructureontario.ca	Email sent July 9, 2021
	Uyen	Ha	Ontario Pipeline Coordinating Committee	Ministry of Government and Consumer Services. Realty Policy Branch, Realty Division	Policy Lead	777 Bay Street, 2nd Fl Suite 2300	Toronto	ON	M5G 2E5		uyen.ha@ontario.ca	Email sent July 9, 2021
	Kathy	McDonald	Ontario Pipeline Coordinating Committee	Ministry of the Environment, Conservation and Parks (MECP) Regional Contact-Northern	Supervisor, APEP	199 Larch Street, Suite 1101	Sudbury	ON	P3E 5P9	705-564-3273	kathy.mcdonald@ontario.ca	Email sent July 9, 2021
To Whom it May Concern			Ontario Pipeline Coordinating Committee	Ministry of Municipal Affairs and Housing (Thunder Bay)		435 James St S, Suite 223	Thunder Bay	ON	P7E 6S7	807-475-1665		Letter mailed July 20, 2021

Table B2.3: Municipal Contacts

Title	First Name	Surname	Title	Agency	Department	Address	City/Town	Province	Postal Code	Telephone	E-Mail	NoC (email only)
Major	Renald	Beaulieu	Mayor	Municipality of Greenstone	Elected official	285 Main Street, PO Box 270	Geraldton	ON	P0T 1M0	1-807-854-1100, ext. 2026	renald.beaulieu@greenstone.ca	Email sent July 9, 2021
Councllor	Claudette	Trottier	Council Member – Beardmore Ward	Municipality of Greenstone	Elected official	285 Main Street, PO Box 270	Beardmore	ON	P0T 1G0	1-807-875-2639	claudette.trottier@greenstone.ca	Email sent July 9, 2021
Councllor	Bill	Assad	Council Member - Geraldton Ward	Municipality of Greenstone	Elected official	285 Main Street, PO Box 270	Geraldton	ON	P0T 1M0		bill.assad@greenstone.ca	Email sent July 9, 2021
Councllor	John J.	Marino	Council Member – Geraldton Ward	Municipality of Greenstone	Elected official	285 Main Street, PO Box 270	Geraldton	ON	P0T 1M0		john.marino@greenstone.ca	Email sent July 9, 2021
Councllor	Claudette	Abraham	Council Member – Nakina Ward	Municipality of Greenstone	Elected official	200 Centre Ave., PO Box 210	Nakina	ON	P0T 2H0	1-807-329-5361	claudette.abraham@greenstone.ca	Email sent July 9, 2021
Councllor	Gloria	McCraw	Council Member – Rural East Ward	Municipality of Greenstone	Elected official	285 Main Street, PO Box 270	Geraldton	ON	P0T 1M0		gloria.mccraw@greenstone.ca	Email sent July 9, 2021
Councllor	Andre	Blanchard	Council Member – Rural West Ward	Municipality of Greenstone	Elected official	285 Main Street, PO Box 270	Geraldton	ON	P0T 1M0		andre.blanchard@greenstone.ca	Email sent July 9, 2021
Councllor	James	McPherson	Council Member – Longlac Ward	Municipality of Greenstone	Elected official	105 Hamel Ave., PO Box 640	Longlac	ON	P0T 2A0	1-807-876-2316	james.mcpherson@greenstone.ca	Email sent July 9, 2021
Councllor	Elaine	Mannisto	Council Member – Longlac Ward	Municipality of Greenstone	Elected official	106 Hamel Ave., PO Box 640	Longlac	ON	P0T 2A1	1-807-876-2317	elaine.mannisto@greenstone.ca	Email sent July 9, 2021
	Mark	Wright	Chief Administrative Officer	Municipality of Greenstone	General Government	1800 Main St., Box 70	Geraldton	ON	P0T 1M0	1-807-854-1100, ext. 2026	mark.wright@greenstone.ca	Email sent July 9, 2021
	John	Duhaime	Director of Public Works	Municipality of Greenstone	General Government	1800 Main St., Box 70	Geraldton	ON	P0T 1M0	1-807-854-1100, ext. 2057	john.duhaime@greenstone.ca	Email sent July 9, 2021
	Brian	Aaltonen	Director of Public Services	Municipality of Greenstone	General Government	1800 Main St., Box 70	Geraldton	ON	P0T 1M0	807-854-1100 x2060	brian.aaltonen@greenstone.ca	Email sent July 9, 2021
	Jeff	Lipskie	Director of Fire Services/Fire Chief	Municipality of Greenstone	Fire Services	1800 Main St., Box 70	Geraldton	ON	P0T 1M0	1-807-854-1100 ext 2007	jeff.lipskie@greenstone.ca	Email sent July 9, 2021
	Gabrielle	Lecuyer	Muncipial Clerk	Municipality of Greenstone	Clerk's Department	1800 Main St., Box 70	Geraldton	ON	P0T 1M0	1-807-854-1100, ext. 2059	gabrielle.lecuyer@greenstone.ca	Email sent July 9, 2021
	Stephen	Mykulak	Director of Protective & Planning Services	Municipality of Greenstone	Protective & Planning Services	1800 Main St., Box 70	Geraldton	ON	P0T 1M0	1-807-854-1100 ext. 2027	stephen.mykulak@greenstone.ca	Email sent July 9, 2021
Dr.	David	Williams	Medical Officer of Health	Thunder Bay District Health Unit		999 Balmoral Street	Thunder Bay	ON	P7B 6E7	807-625-5900		Mailed to contact.
	Edgar	Lavoie	President	Greenstone History		P.O. Box 938	Geraldton	ON	P0T 1M0		edgarlavoie@hotmail.com	Email sent July 9, 2021

Table B2.4: Landowner and Public Contacts

First Name	Surname	Address	City/Town	Postal Code	Telephone	E-Mail
Lorette			Geraldton			
Micheal			Geraldton			

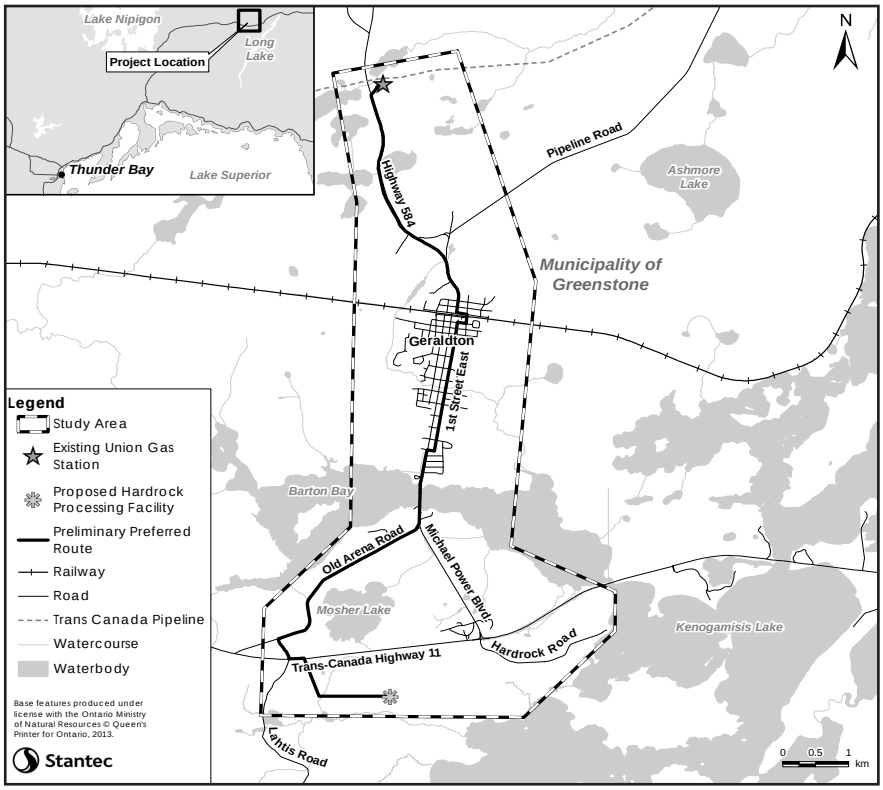
APPENDIX B3
NOTICE OF STUDY COMMENCEMENT

UNION GAS LIMITED
NOTICE OF PROJECT COMMENCEMENT AND INFORMATION SESSION

Greenstone Pipeline Project

To service the proposed Greenstone Gold Mines Hardrock Project with clean, affordable natural gas, Union Gas Limited (Union Gas) is proposing to construct a 6-inch (15.24 cm) diameter steel natural gas pipeline in the Municipality of Greenstone, Ontario. The pipeline will commence at the existing Union Gas valve site located on the TransCanada Pipeline and terminate at the proposed Hardrock Processing Facility located south of Trans-Canada Highway 11 between Lahtis Road and Hardrock Road.

Union Gas is committed to developing and operating its facilities and pipelines in an environmentally responsible manner. As part of the planning process, Union Gas has retained Stantec Consulting Ltd. 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 (2011). If approved, construction could begin as early as spring 2017.



A route evaluation and selection process was completed and a preliminary preferred route has been identified. The preliminary preferred route is located within the road allowances of Highway 584, 1st Street E, Old Arena Road, Lahtis Road and Trans-Canada Hwy 11.

Union Gas will continue to consult and engage with landowners, municipalities, government agencies, First Nations, the Métis Nation of Ontario and other interested parties throughout the project. An Information Session regarding the project will be held as follows:

April 20, 2016
5:00 p.m. to 8:00 p.m.
Royal Canadian Legion Branch 133
522 Main Street
Geraldton, ON

If you are unable to attend the Information Session but have questions or comments regarding the project, please contact:

Steve Thurtell, M.Sc., P.Ag., CISEC
Senior Project Manager
Stantec Consulting Ltd.
Phone: (519) 780-8108
steve.thurtell@stantec.com

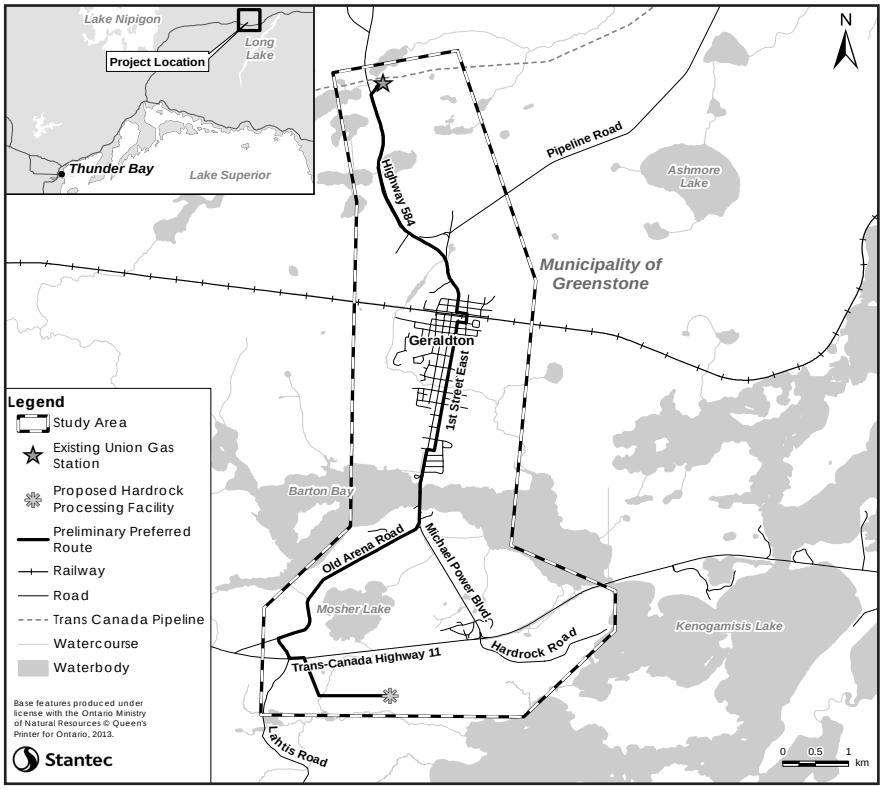
uniongas
A Spectra Energy Company

UNION GAS LIMITED
AVIS DE DÉBUT DE PROJET ET D'UNE SÉANCE D'INFORMATION

Projet de pipeline de Greenstone

Afin d'approvisionner le projet proposé de Greenstone Gold Mines Hardrock en gaz naturel propre et abordable, Union Gas Limited (Union Gas) propose de construire un pipeline de gaz naturel de 6 po (15,24 cm) de diamètre dans la municipalité de Greenstone (Ontario). La construction du pipeline débutera sur le site existant de la vanne de Union Gas située sur le réseau de TransCanada PipeLines et se terminera à l'installation proposée de Hardrock Processing situé au sud de la route Transcanadienne 11 entre Lahtis Road et Hardrock Road.

Union Gas s'engage à élaborer et à l'exploiter ses installations et ses pipelines de manière respectueuse de l'environnement. Dans le cadre du processus de planification, Union Gas a retenu les services de Stantec Consulting Ltd. pour la réalisation d'une étude environnementale liée à la construction et à l'exploitation du pipeline projeté. L'étude environnementale permettra de satisfaire aux exigences de Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario (2011) de la Commission de l'énergie de l'Ontario (CEO) (lignes directrices en matière d'environnement). Si le projet est approuvé, la construction pourrait commencer dès le printemps 2017.



Un processus d'évaluation et de sélection de route a été complété et un itinéraire préliminaire privilégié a été identifié. Le tracé préliminaire privilégié se situe au sein de l'emprise routière de l'autoroute 584, 1st Street E, Old Arena Road, Lahtis Road et la route Transcanadienne 11.

Union Gas continuera de collaborer avec les propriétaires fonciers, les municipalités, les organismes publics, les Premières nations, la Nation métisse de l'Ontario ainsi qu'avec les autres parties intéressées dans l'ensemble du projet et de les consulter. Une séances d'information concernant le projet se tiendra comme suit :

Le 20 avril 2016
De 17 h à 20 h
Filiale 133 de la Légion royale canadienne
522 Main Street
Geraldton, ON

Si vous êtes dans l'impossibilité d'assister à la séance d'information, mais avez des questions ou des commentaires concernant le projet, veuillez communiquer avec :

Steve Thurtell, M.Sc., P.Ag., CISEC
Chargé de projet principal
Stantec Consulting Ltd.
Téléphone : 519 780-8108
steve.thurtell@stantec.com

uniongas
A Spectra Energy Company

Union Gas Limited - Greenstone Pipeline Project
Notice of Project Commencement and Information Session

To service the proposed Greenstone Gold Mines Hardrock Project with clean, affordable natural gas, Union Gas Limited is proposing to construct a 6-inch diameter natural gas pipeline in the Municipality of Greenstone, Ontario. An Information Session regarding the project will be held as follows:

April 20, 2016
5:00 p.m. to 8:00 p.m.
Royal Canadian Legion Branch 133
522 Main Street
Geraldton, ON



If you are unable to attend the Information Session but have questions or comments regarding the project, please contact:
Steve Thurtell, Stantec by phone (519-780-8108) or by email (steve.thurtell@stantec.com)

APPENDIX B4
PHASE II: LETTERS

April 4, 2016
File: 160960975

Attention: «Title» «First_Name» «Last_Name», «Position»
«Department»
«Agency»
«Address»
«City», «Prov» «Postal»

Dear «Title» «Last_Name»,

Reference: Union Gas Limited – Notice of Project Commencement and Information Session
Greenstone Pipeline Project

To service the proposed Greenstone Gold Mines Hardrock Project with clean, affordable natural gas, Union Gas Limited (Union Gas) is proposing to construct a 6-inch (15.24 cm) diameter steel natural gas pipeline in the Municipality of Greenstone, Ontario. The pipeline will commence at the existing Union Gas valve site located on the TransCanada Pipeline and terminate at the proposed Hardrock Processing Facility located south of Trans-Canada Highway 11 between Lahtis Road and Hardrock Road.

Union Gas is committed to developing and operating its facilities and pipelines in an environmentally responsible manner. As part of the planning process, Union Gas has retained Stantec Consulting Ltd. (Stantec) to undertake an environmental study of the construction and operation of the proposed pipeline. An Environmental Report, summarizing the results of the environmental study, will accompany Union Gas' application to the OEB, whose review and approval is needed before this project can proceed. The environmental study and Environmental Report 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, 6th Edition (2011)*. If approved by the OEB, project construction is targeted for spring 2017.

A route evaluation and selection process was completed and a preliminary preferred route has been identified. The preliminary preferred route is located within the road allowances of Highway 584, 1st Street E, Old Arena Road, Lahtis Road and Trans-Canada Hwy 11. Please see the map in the attached Notice.

As a stakeholder with jurisdiction or a potential interest in developments in the project location you are invited to provide comments on the project and preliminary preferred route. Specifically, Stantec is seeking information that may affect construction and operation of the proposed pipeline, including: background environmental and socio-economic information, planning

principles or guidelines which fall under your jurisdiction and other proposed developments known in the area to assess potential cumulative effects.

Union Gas will continue to consult and engage with landowners, municipalities, government agencies, First Nations, the Métis Nation of Ontario and other interested parties throughout the project. **An Information Session regarding the Greenstone Pipeline Project will be held on April 20, 2016.** Please see the attached Notice for more details. We hope you are able to attend the Information Session.

If you are unable to attend the Information Session but have questions or comments regarding the project, please do not hesitate to contact the undersigned.

Regards,

STANTEC CONSULTING LTD.

Steve Thurtell, M.Sc., P.Ag., CISEC
Senior Project Manager
Phone: (519) 780-8108
Fax: (519) 836-2493
steve.thurtell@stantec.com

Attachment: Notice of Project Commencement

c. Norm Dumouchelle, Union Gas

April 1, 2016
File: 160960975

Dear Sir/Madam,

Reference: Union Gas Limited – Notice of Project Commencement and Information Session
Greenstone Pipeline Project

To service the proposed Greenstone Gold Mines Hardrock Project with clean, affordable natural gas, Union Gas Limited (Union Gas) is proposing to construct a 6-inch (15.24 cm) diameter steel natural gas pipeline in the Municipality of Greenstone, Ontario. The pipeline will commence at the existing Union Gas valve site located on the TransCanada Pipeline and terminate at the proposed Hardrock Processing Facility located south of Trans-Canada Highway 11 between Lahtis Road and Hardrock Road.

Union Gas is committed to developing and operating its facilities and pipelines in an environmentally responsible manner. As part of the planning process, Union Gas has retained Stantec Consulting Ltd. (Stantec) to undertake an environmental study of the construction and operation of the proposed pipeline. An Environmental Report, summarizing the results of the environmental study, will accompany Union Gas' application to the OEB, whose review and approval is needed before this project can proceed. The environmental study and Environmental Report 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, 6th Edition (2011)*. If approved by the OEB, project construction is targeted for spring 2017.

A route evaluation and selection process was completed and a preliminary preferred route has been identified. The preliminary preferred route is located within the road allowances of Highway 584, 1st Street E, Old Arena Road, Lahtis Road and Trans-Canada Hwy 11. Please see the map in the attached Notice. As an adjacent landowner you are invited to provide comments on the proposed project and the preliminary preferred route.

Union Gas will continue to consult and engage with landowners, municipalities, government agencies, First Nations, the Métis Nation of Ontario and other interested parties throughout the project. **An Information Session regarding the Greenstone Pipeline Project will be held on April 20, 2016.** Please see the attached Notice for more details. We hope you are able to attend the Information Session.

If you are unable to attend the Information Session but have questions or comments regarding the project, please do not hesitate to contact the undersigned.

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,

STANTEC CONSULTING LTD.

Steve Thurtell, M. Sc., P. Ag., CISEC
Senior Project Manager
Phone: (519) 780-8108
Fax: (519) 836-2493
steve.thurtell@stantec.com

Attachment: Notice of Project Commencement and Information Session

c. Norm Dumouchelle, Union Gas

Le 1 avril 2016
Dossier : 160960975

Chère, cher Madame, Monsieur,

Référence : Union Gas Limited - Avis de début de projet et d'une séance d'information
Projet de pipeline de Greenstone

Afin d'approvisionner le projet proposé de Greenstone Gold Mines Hardrock en gaz naturel propre et abordable, Union Gas Limited (Union Gas) propose de construire un pipeline de gaz naturel de 6 po (15,24 cm) de diamètre dans la municipalité de Greenstone (Ontario). La construction du pipeline débutera sur le site existant de la vanne de Union Gas située sur le réseau de TransCanada PipeLines et se terminera à l'installation proposée de Hardrock Processing située au sud de la route Transcanadienne 11 entre Lahtis Road et Hardrock Road.

Union Gas s'engage à élaborer et à l'exploiter ses installations et ses pipelines de manière respectueuse de l'environnement. Dans le cadre du processus de planification, Union Gas a retenu les services de Stantec Consulting Ltd. (Stantec) pour la réalisation d'une étude environnementale liée à la construction et à l'exploitation du pipeline projeté. Un rapport environnemental, résumant les résultats de l'étude environnementale, accompagnera la demande Union Gas à l'OEB, dont l'examen et l'approbation est requise avant que ce projet ne puisse être entrepris. L'étude environnementale et le rapport sur l'environnement permettront de satisfaire aux exigences de *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 6e édition* (2011) de la Commission de l'énergie de l'Ontario (CEO) (lignes directrices en matière d'environnement). Si elle est approuvée par la CEO, la construction relative à ce projet est prévue pour le printemps 2017.

Un processus d'évaluation et de sélection de route a été complété et un itinéraire préliminaire privilégié a été identifié. Le tracé préliminaire privilégié se situe au sein de l'emprise routière de l'autoroute 584, 1st Street E, Old Arena Road, Lahtis Road et la route Transcanadienne 11. Veuillez voir la carte dans l'avis ci-joint. En tant que propriétaire d'un terrain adjacent, vous êtes invité à formuler des commentaires sur le projet proposé et sur le tracé préliminaire privilégié.

Union Gas continuera de collaborer avec les propriétaires fonciers, les municipalités, les organismes publics, les Premières nations, la Nation métisse de l'Ontario ainsi qu'avec les autres parties intéressées dans l'ensemble du projet et de les consulter. **Une séance d'information concernant le projet de pipeline de Greenstone se tiendra le 20 avril 2016.** Veuillez voir l'avis ci-joint pour plus de détails. Nous espérons que vous serez en mesure d'assister à la séance d'information.

Si vous êtes dans l'impossibilité d'assister à la séance d'information, mais avez des questions ou des commentaires concernant le projet, n'hésitez pas à communiquer avec le soussigné.

N'hésitez pas à partager cette lettre avec vos voisins. Si vous êtes un propriétaire foncier, il serait également apprécié que cette lettre soit partagée avec vos locataires.

Cordialement,

STANTEC CONSULTING LTD.

Steve Thurtell, M. Sc., P. Ag., CISEC
Chargé de projet principal
Téléphone : 519 780-8108
Fax : 519 836-2493
steve.thurtell@stantec.com

Pièce jointe : Avis de début de projet et d'une séance d'information

c. Norm Dumouchelle, Union Gas

APPENDIX B5
OPENHOUSE DISPLAY BOARDS, NEWSLETTERS, AND QUESTIONNAIRES

Welcome

to the

Greenstone Pipeline Project

Information Session

A Union Gas Pipeline Project

Stantec Consulting Ltd. has been retained by Union Gas Limited to complete environmental services for the Greenstone Pipeline Project.

Union Gas Limited
Greenstone Pipeline Project

Information Session

Welcome

Thank you for coming. We invite you to view the display boards, speak to members of Union Gas or Stantec, and complete a questionnaire providing your feedback.

Please sign up at the front desk to have your attendance recorded as part of the environmental study and to receive future project updates.



Stantec Consulting Ltd. has been retained by Union Gas Limited to complete environmental services for the Greenstone Pipeline Project.

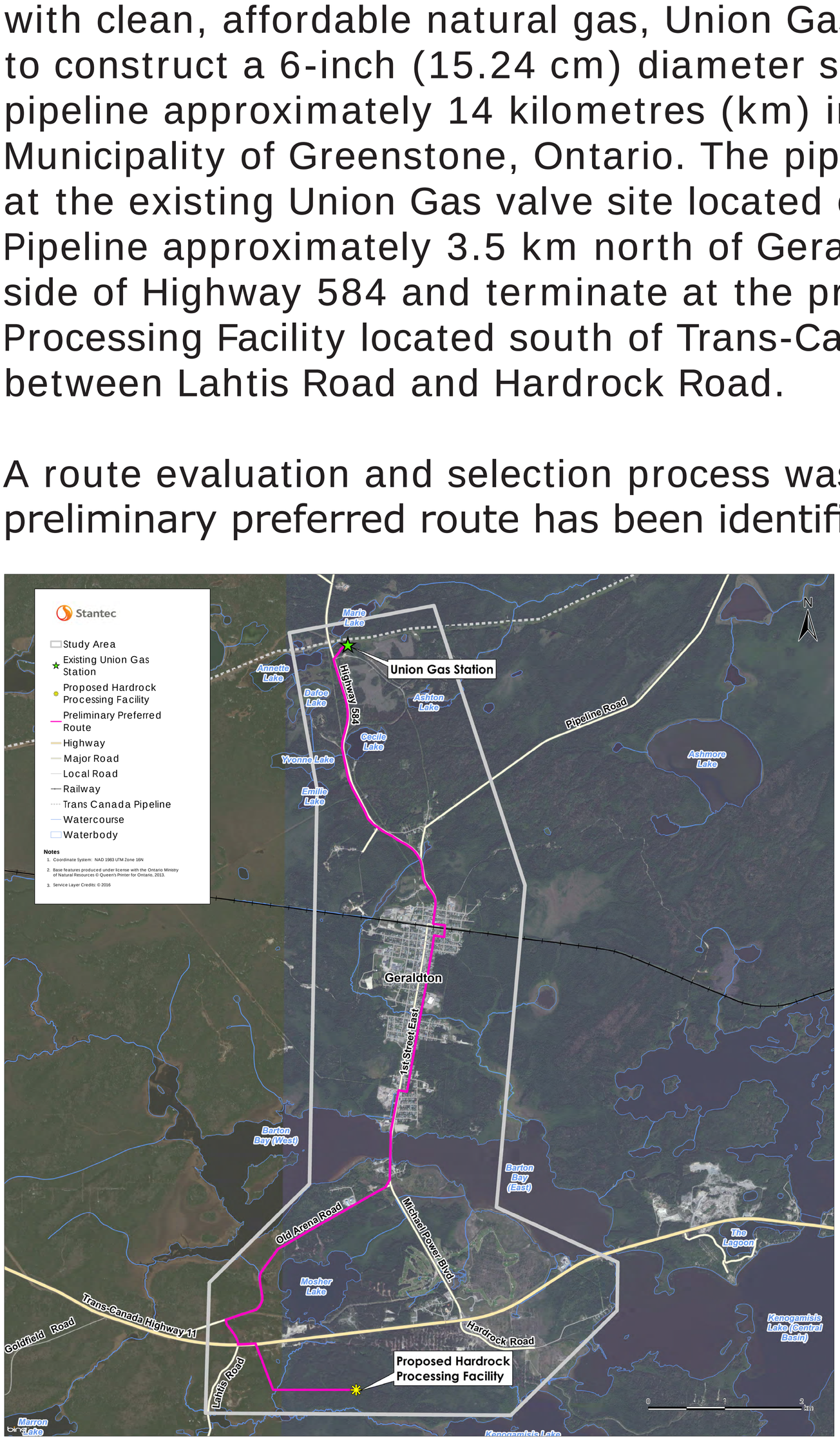
Union Gas Limited
Greenstone Pipeline Project
Information Session

uniongas
A Spectra Energy Company

Project Overview

To service the proposed Greenstone Gold Mines Hardrock Project with clean, affordable natural gas, Union Gas is proposing to construct a 6-inch (15.24 cm) diameter steel natural gas pipeline approximately 14 kilometres (km) in length within the Municipality of Greenstone, Ontario. The pipeline will commence at the existing Union Gas valve site located on the TransCanada Pipeline approximately 3.5 km north of Geraldton on the east side of Highway 584 and terminate at the proposed Hardrock Processing Facility located south of Trans-Canada Highway 11 between Lahtis Road and Hardrock Road.

A route evaluation and selection process was completed and a preliminary preferred route has been identified. The preliminary preferred route is located within the road allowances of Highway 584, 1st Street E, Old Arena Road, Lahtis Road and Trans-Canada Hwy 11. If approved by the Ontario Energy Board, project construction is targeted for spring 2017.



Environmental Study Process

The environmental study and subsequent Environmental Report for the project will be completed as per the Ontario Energy Board's (OEB) "**Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario (2011)**."

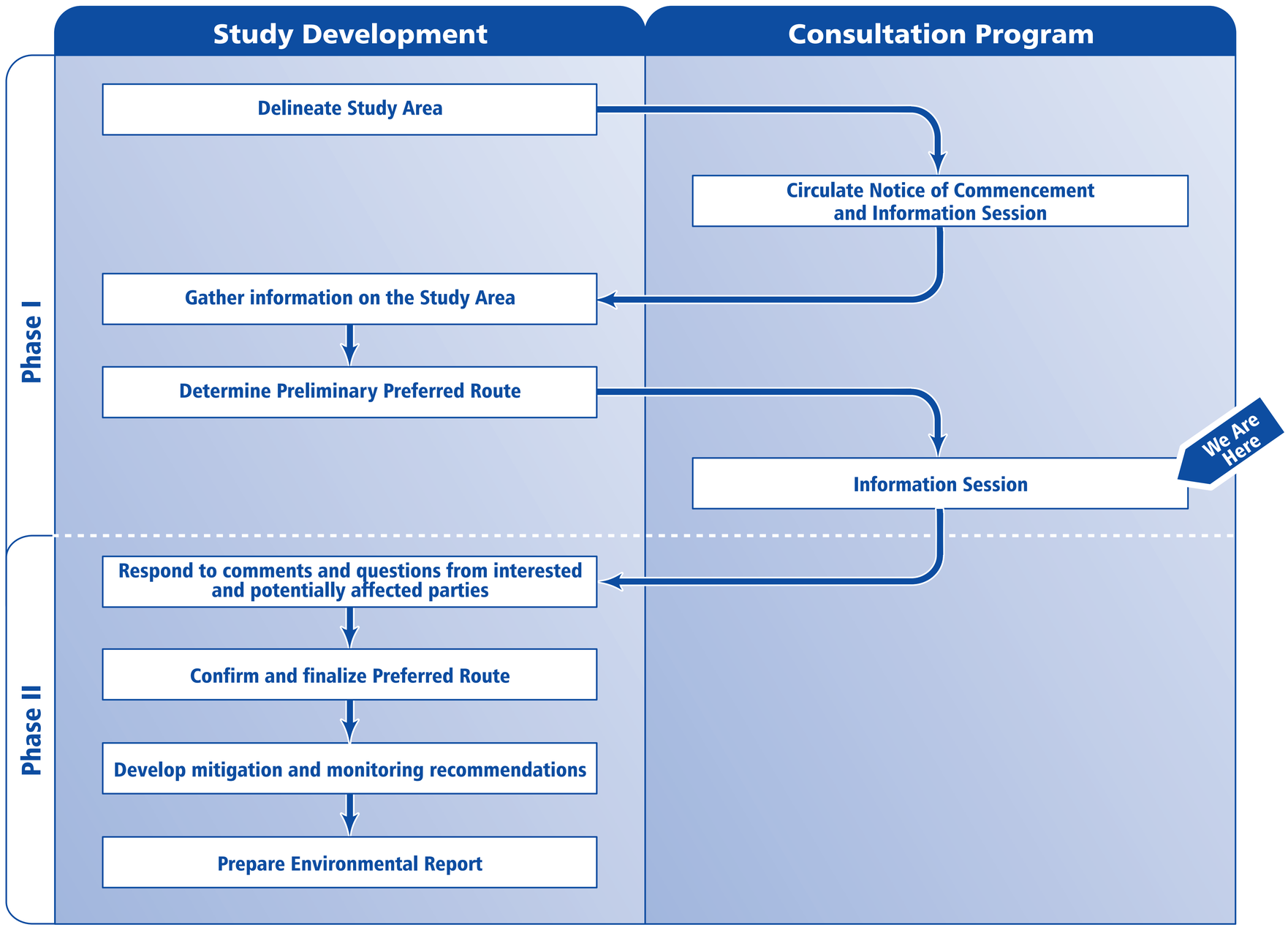
The study will:

- Be conducted during the earliest phase of the project
- Identify potential impacts of construction and operation of the proposed pipeline in regards to environmental and socio-economic conditions
- Undertake consultation to understand the views of interested and potentially affected parties
- Assess the potential cumulative effects of the project in conjunction with other projects that are planned for the area
- Develop mitigation and protective measures to avoid or minimize potential impacts
- Develop an appropriate inspection, monitoring and follow-up program for the project to facilitate the success of mitigation and protective measures

Union Gas Limited
Greenstone Pipeline Project
Information Session

uniongas
A Spectra Energy Company

Environmental Study Process



Ontario Energy Board Review and Approval Process

The Ontario Energy Board (OEB) is the body that regulates the natural gas industry in Ontario, in the public's interest.

Union Gas plans to submit an application for this project to the OEB, whose review and approval is needed before this project can proceed. This application will include comprehensive information on the project including: the need for the project, facility alternatives, project costs and economics, pipeline design and construction, environmental mitigation measures, land requirements, and consultation with First Nations and the Métis Nation of Ontario.

The OEB will then hold a public hearing to review the project. This will include notices in local newspapers, letters to landowners, the opportunity for the general public and landowners to submit questions regarding the project, a formal hearing, and a written decision regarding the project.

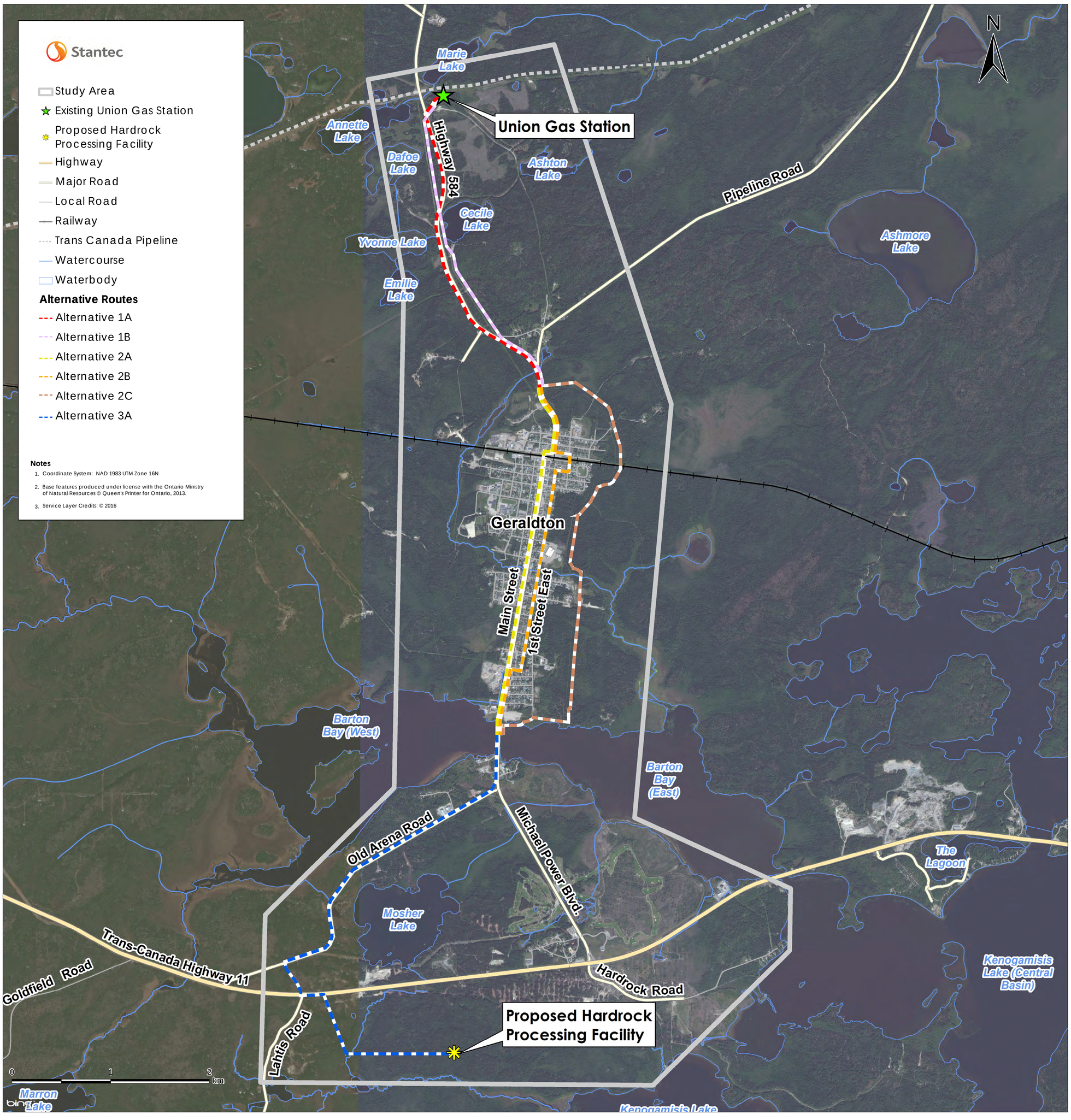
If after this review the OEB determines that the project is in the public's interest it will approve construction of the project. The OEB normally attaches conditions to the approval which Union Gas will comply with during the construction and restoration process.

Additional information about the OEB process and information about how to participate in the OEB hearing process can be found at: www.ontarioenergyboard.ca

Submit application → Public hearing → Approval → Construction

Union Gas Limited
Greenstone Pipeline Project
Information Session

Alternative Routes



Route Evaluation and Selection Process

Stantec completed a route evaluation and selection process to determine the preliminary preferred route. Geographic information system (GIS) was used to evaluate the alternative routes using select environmental and socio-economic base data acquired from government data warehouses, aerial photo interpretation, site visits and published sources to determine potential impacts. Base data assessed, listed alphabetically, included aquatic, physical, socio-economic and terrestrial characteristics. Experience of the Project Team in routing linear infrastructure was also applied.

Preliminary Preferred Route

The results of the evaluation indicated that the preliminary preferred route was a combination of Alternatives 1B, 2B and 3A. This combination of route alternatives sites the proposed pipeline within the road allowances of Highway 584, 1st Street E, Old Arena Road, Lahtis Road and Trans-Canada Hwy 11. Locating the pipeline within existing road allowances reduces potential impacts on wetlands, wooded areas and potential wildlife habitat, and eliminates the need to disturb previously undisturbed lands. The municipality had demonstrated support of the preliminary preferred route.

Natural Gas Safety

Safety Is Our Top Priority

Public safety is our highest priority and a core company value.Union Gas is an experienced pipeline operator, delivering natural gas to customers around the province through more than 60,000 km of operational pipelines. Union Gas has safely served the majority of communities in Southwestern Ontario for more than 100 years.
Union Gas pipelines and facilities are designed, constructed and maintained to meet or exceed the stringent codes and requirements of:

- Ontario Energy Board Act
- Canadian Standards Association
- Technical Standards and Safety Authority

Facilities used to transport natural gas are monitored 24 hours a day. Operators can shut off valves located at regular intervals along the pipeline, as well as stop the flow of gas altogether.



Natural Gas Safety

- Employees are highly trained and daily safety briefings are an integral part of the construction process.
- During construction working hours, all workers and inspectors are vigilant in ensuring unauthorized people are kept out of the work area. Security fences and signage are erected around open trenches near road crossings.
- The new pipeline will be pressure tested prior to being placed in-service.
- Once construction is complete a comprehensive facility maintenance and integrity program will ensure the pipelines remain in safe operating condition. This includes regular monitoring for corrosion, leaks or any other potential damage.
- Residents in proximity to the pipeline will be contacted regarding pipeline safety and emergency preparedness through our ongoing public awareness program.
- After construction, the pipeline location is marked with above ground “pipeline marker” signs.





Construction

Union Gas is committed to minimizing the effects of our projects and operations on the environment. Our environmental management practices help to avoid, mitigate and/or compensate for impacts to environmental and socio-economic features related to our projects. Such practices relevant to the current project include:

- Pre-construction environmental planning to avoid, to the extent possible, impacts to environment and socio-economic features
- Environmental management practices to address potential impacts to geophysical features, soil, vegetation, water, wildlife, air quality, noise and socio-economic features
- Contingency plans in the unlikely event of spills, extreme weather conditions, the discovery of previously unknown heritage resources and/or contaminated soils
- Post construction monitoring and follow-up.



Access and Land Requirements

Union Gas will soon begin discussions with landowners for the appropriate land rights. Union Gas is committed to working with all directly affected landowners in anticipation of negotiating early access agreements and acquiring the necessary land rights. These land rights consist of permanent easements where required and temporary land use requirements. The temporary land use areas are only required during construction activities.

Union Gas will ensure that a Land Relations Agent is available during pipeline construction. The Agent will keep all landowners informed of the project progress and assist with any concerns that may arise, as a result of the construction activities.

Commitment to Natural and Cultural Heritage

- Environmental investigations will be developed in consultation with the appropriate agencies and completed prior to construction during the appropriate timing windows. The environmental investigations will help to develop appropriate mitigation and protective measures by identifying environmental features.
- Prior to construction, the Ministry of Natural Resources and Forestry (MNRF) will be consulted regarding any watercourse crossings. The contractor will follow any conditions set by the MNRF during construction.
- A water well monitoring program will be designed and implemented by an independent third-party hydrogeologist.
- During construction, archaeological finds and cultural heritage features may be encountered. Archaeological Assessment and Cultural Heritage Assessment (for built heritage features and cultural heritage landscapes) will be undertaken by an independent third-party and submitted to the Ministry of Tourism Culture and Sport.
- Surveys are planned to commence in spring 2016.



Commitment to Surrounding Landowners

During the course of construction, surrounding landowners will experience noise, dust and equipment exhaust. As construction will occur in stages, disturbance will not be continuous. Union Gas will implement mitigation measures to reduce disturbance, including:

- Shielding sources of noise.
- Requiring the contractor to avoid idling where practical, and implement measures to control on-site dust.
- Consulting with regulatory bodies to develop re-planting plans for any vegetation removed from public land.
- Installing fencing at the edge of the construction right-of-way where public safety considerations are required.

A Land Relations Agent will be available to serve as a designated contact during construction to answer any questions or concerns that landowners may have.

With diligent construction and restoration, following installation little evidence will remain that a pipeline is present.

Project Schedule

Project Timeline

2015/2016

- Delineate Study Area
- Circulate Notice of Commencement and Information Session
- Gather Information on the Study Area
- Determined preliminary preferred alternative
- **We Are Here** — Information Session
- Respond to comments and questions from interested and potentially affected parties
- Confirm and finalize preferred route
- Pre-construction activities

(If the OEB approves the application)

2017

- Prepare Environmental Report
- Complete OEB filing
- Construction
- Pipeline in service

Ongoing communication with municipal staff, elected officials, landowners, First Nations, the Métis Nation of Ontario, government agencies, special interest groups and members of the community.

Union Gas Limited
Greenstone Pipeline Project
Information Session

Thank You!

On behalf of the Project Team, thank you for attending this Information Session. We appreciate your involvement in the consultation process and we would like to hear from you.

Please fill out the Exit Questionnaire. If you have any further comments or questions please contact:

Steve Thurtell, M.Sc., P.Ag, CISEC.
Stantec Consulting Ltd.
Project Manager
Phone: (519) 780-8108
Email: steve.thurtell@stantec.com

Or visit our project webpage: www.uniongas.com/projects

Appendix B5: Openhouse Display Boards, Newsletters, and Questionnaires

Table B5.1: Open House Attendees

First Name	Surname	City/Town
J.K.	B.	Geraldton
James	M.	Longlac
Hayley	K.	
Ron	A.	
Dina	Q.	
Laura	B.	
Claude	F.	
Larissa	M.	
Jose	B.	
Jean	C.	
Marla	M.	
Cheryl	L.	
Pierre	C.	
William	G.	Geraldton
Oscar	D.	Geraldton
Francois	S.	Geraldton
Chris	W.	
Robert	P.	Geraldton
Andre	B.	
Wayne	A.	Geraldton
Jerry	J.	Geraldton
Jason	R.	Thunder Bay
Jim	M.	Geraldton
George J	H.	Geraldton
Brian	D.	

GREENSTONE PIPELINE PROJECT
Public Information Session
April 20, 2016

Comments:

Comments recorded by: _____

Follow Up Required: ***YES*** □ ***NO*** □

Details:

Contact Information:

Name:

Address:

Email Address:

Telephone No:

Union Gas Limited
Greenstone Pipeline Project
Information Newsletter

Project Overview

To service the proposed Greenstone Gold Mines Hardrock Project with clean, affordable natural gas, Union Gas is proposing to construct a 6-inch (15.24 cm) diameter steel natural gas pipeline approximately 14 kilometres (km) in length within the Municipality of Greenstone, Ontario. The pipeline will commence at the existing Union Gas valve site located on the TransCanada Pipeline approximately 3.5 km north of Geraldton on the east side of Highway 584 and terminate at the proposed Hardrock Processing Facility located south of Trans-Canada Highway 11 between Lahtis Road and Hardrock Road.

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Facilities used to transport natural gas are monitored 24 hours a day. Operators can shut off valves located at regular intervals along the pipeline, as well as stop the flow of gas altogether.

Ontario Energy Board Review and Approval Process

The Ontario Energy Board (OEB) is the body that regulates the natural gas industry in Ontario, in the public's interest. The OEB's approval is required before this pipeline can be constructed.

Union Gas plans to submit an application for this project to the OEB, whose review and approval is needed before this project can proceed. This application will include comprehensive information on the project including: the need for the project, facility alternatives, project costs and economics, pipeline design and construction, environmental mitigation measures, land requirements, and consultation with First Nations and the Métis Nation of Ontario.

The OEB will then hold a public hearing to review the project. This will include notices in local newspapers, letters to directly affected landowners, the opportunity for the general public and landowners to submit questions regarding the project, a formal hearing, and a written decision regarding the project.

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Additional information about the OEB process and information about how to participate in the OEB hearing process can be found at: www.ontarioenergyboard.ca

Submit Application > Public Hearing > Approval > Construction

Environmental Study Process

(Please see attachment)

Thank You!

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Please fill out the Exit Questionnaire. If you have any further comments or questions please contact:

Steve Thurtell, M.Sc., P.Ag, CISEC.
Stantec Consulting Ltd.
Project Manager
Phone: (519) 780-8108
Email: steve.thurtell@stantec.com

Or visit our project webpage: **www.uniongas.com/projects**

Union Gas Limited
Projet de pipeline de Greenstone
Bulletin d'information

Vue d'ensemble du projet

Afin d'approvisionner le projet proposé de Greenstone Gold Mines Hardrock en gaz naturel propre et abordable, Union Gas propose de construire un pipeline de gaz naturel en acier de 6 po (15,24 cm) de diamètre et d'une longueur d'environ 14 kilomètres (km) dans la municipalité de Greenstone (Ontario). La construction du pipeline débutera sur le site existant de la vanne d'Union Gas située sur le réseau de TransCanada PipeLines, à environ 3,5 km au nord de Geraldton à l'est de l'autoroute 584 et se terminera à l'installation proposée de Hardrock Processing située au sud de la route Transcanadienne 11 entre Lahtis Road et Hardrock Road.

Un processus d'évaluation et de sélection de route a été complété et un itinéraire préliminaire privilégié a été identifié. Le tracé préliminaire privilégié se situe au sein de l'emprise routière de l'autoroute 584, 1st Street E, Old Arena Road, Lahtis Road et la route Transcanadienne 11. Si le projet de construction est approuvé par la Commission de l'énergie de l'Ontario, il débutera selon les prévisions au printemps 2017.

Sécurité en matière de gaz naturel

La sécurité est notre priorité

La sécurité publique est notre priorité et une valeur essentielle de l'entreprise. Union Gas est un opérateur de gazoduc chevronné, distribuant du gaz naturel aux clients de l'ensemble de la province grâce à ses pipelines fonctionnels qui s'étendent sur plus 60 000 km. Union Gas offre depuis plus d'un siècle des services en toute sécurité à la majorité des communautés du sud-ouest de l'Ontario.

Les pipelines et les installations d'Union Gas sont conçus, construits et entretenus de façon à satisfaire ou à dépasser les rigoureux codes et exigences de :

- La Loi sur la Commission de l'énergie de l'Ontario
- L'Association canadienne de normalisation
- La Commission des normes techniques et de la sécurité

Les installations utilisées pour le transport du gaz naturel font l'objet d'une surveillance 24 heures par jour. Les exploitants peuvent fermer les vannes situées à intervalle régulier le long du pipeline, et peuvent tout aussi bien interrompre le flux de gaz.

Processus d'examen et d'approbation de la Commission de l'énergie de l'Ontario

La Commission de l'énergie de l'Ontario (CEO) est l'organisme qui réglemente le secteur du gaz naturel en Ontario, dans l'intérêt public. L'approbation de la CEO est requise pour que ce pipeline puisse être construit.

Union Gas prévoit faire une demande concernant ce projet auprès de la CEO, dont l'examen et l'approbation sont nécessaires pour que le projet puisse aller de l'avant. Cette demande comprendra des informations détaillées relatives au projet, y compris : la nécessité de voir ce projet se réaliser, les solutions de rechange en ce qui concerne l'installation, les coûts et les caractéristiques économiques du projet, la conception et la construction du pipeline, les mesures d'atténuation environnementale, les exigences concernant le terrain et la consultation auprès des Premières nations et la Nation métisse de l'Ontario.

La CEO tiendra alors une audience publique pour examiner le projet. Cela comprendra des avis dans les journaux locaux, des lettres aux propriétaires fonciers qui sont directement affectés, la possibilité pour le grand public et les propriétaires fonciers de soumettre des questions concernant le projet, une audience officielle et une décision écrite concernant le projet.

Dans le cas où la CEO établit après examen que le projet est conforme à l'intérêt public, elle approuvera la construction du projet. Union Gas est tenu de se conformer au cours du processus de construction et de restauration à des conditions d'ordinaire requises par la CEO pour donner son approbation.

Des renseignements supplémentaires concernant le processus suivi par la CEO et des renseignements sur la manière de participer au processus d'audiences de la CEO sont disponibles à http://www.ontarioenergyboard.ca

Soumettre la demande > Audience publique > Approbation > Construction

Merci!

Au nom de l'équipe de projet, merci d'avoir assisté à cette séance d'information. Nous apprécions votre participation au processus de consultation et nous souhaitons recevoir de vos nouvelles.

Veuillez remplir le questionnaire à la sortie. Si vous avez des questions ou des commentaires, veuillez prendre contact avec :

Steve Thurtell, M.Sc., P.Ag, CISEC.
Stantec Consulting Ltd.
Chef de projet
Téléphone : 519 780-8108
Courriel : steve.thurtell@stantec.com

Ou consultez la page Web de notre projet : **www.uniongas.com/projects**

Please read the newsletter and look over the displays, and then take a few moments to answer the following questions. Your comments are appreciated. If you require any assistance or clarification while completing the questionnaire please speak with a Union Gas or Stantec representative.

Completed questionnaires can be dropped off at the front table. If you would like additional time to consider your comments, pre-paid envelopes are available at the front table. We request your comments by April 29, 2016.

1. What is your interest in this project?

   ☐ Directly affected landowner
   ☐ Surrounding landowner
   ☐ Interested citizen
   ☐ Member of interest group
   ☐ Government official
   ☐ Other: _____

2. Please indicate if the project will have any impacts to you, your property or your business.

3. Please identify any features along the Preliminary Preferred Route that you feel are important to consider during the environmental study.

4. Do you agree that the Preliminary Preferred Route is the most appropriate option?

   ☐ Yes ☐ No

   Please comment:

5. Do you have any questions or comments about this project that you would like to bring to our attention?

6. Did the content provided at this Information Session meet your needs?

Thank you for completing this questionnaire. If you have a question about the project that has not been addressed or for which you would like more information, please provide us with your full contact information so that we can respond to you.

Please Print Clearly

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 Union Gas 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.

Veuillez d'abord jeter un coup d'œil au bulletin d'information, puis prendre quelques moments pour répondre aux questions suivantes. Vos commentaires sont les bienvenus. Si vous avez besoin d'aide ou de précisions pour remplir le questionnaire, adressez-vous à un représentant d'Union Gas ou de Stantec.

Vous pouvez déposer les questionnaires remplis sur la table à l'avant. Si vous désirez avoir plus de temps pour réfléchir à vos commentaires, des enveloppes-réponses affranchies sont prévues à cet effet sur la table à l'avant. Nous vous prions de nous faire part de vos commentaires au plus tard le 29 avril 2016.

1. Quel intérêt portez-vous à ce projet?

   ☐ Propriétaire foncier directement affecté
   ☐ Propriétaire foncier situé dans les environs
   ☐ Citoyen intéressé
   ☐ Membre d'un groupe d'intérêt
   ☐ Fonctionnaire
   ☐ Autre : _____

2. Veuillez indiquer si le projet aura des conséquences quelconques pour vous, votre propriété ou votre entreprise.

3. Veuillez indiquer toute caractéristique présente sur le tracé préliminaire privilégié que vous jugez suffisamment importante pour qu'il en soit tenu compte lors de l'étude environnementale.

4. Selon vous, le tracé préliminaire privilégié est-il le choix le plus approprié?

   ☐ Oui ☐ Non

   Veuillez nous faire part de vos commentaires :

5. Avez-vous des questions ou des commentaires concernant ce projet que vous souhaitez porter à notre attention?

6. Le contenu présenté dans le cadre de la séance d'information a-t-il répondu à vos besoins?

Merci d'avoir rempli ce questionnaire. Concernant le projet, si vous avez des questions auxquelles nous n'avons pas répondu ou pour lesquelles vous souhaitez obtenir de plus amples renseignements, veuillez indiquer vos coordonnées complètes pour que nous puissions prendre contact avec vous.

Veuillez écrire clairement en caractères d'imprimerie

Nom : _____

Adresse : _____

Courriel : _____

Téléphone : (_____)_____

Les informations seront recueillies et utilisées conformément à la Loi sur l'accès à l'information et la protection de la vie privée. Ces informations seront utilisées pour aider Union Gas à satisfaire les exigences applicables pour l'approbation. Le présent document sera conservé en dossier à des fins d'utilisation au cours de l'étude et pourra être inclus à la documentation du projet. Sauf mention contraire, les renseignements personnels et tous les commentaires feront partie intégrante des dossiers publics et pourront être diffusés publiquement dans le cadre de la documentation du projet.

APPENDIX B6
NOTICE OF STUDY RE-COMMENCEMENT

Enbridge Gas Inc.
Notice of Study Re-Commencement
Greenstone Pipeline Project

To service Greenstone Gold Mines GP Inc.'s Greenstone Mine Project with clean, affordable natural gas, Enbridge Gas Inc. is proposing to construct a 13 kilometre 6-inch diameter steel natural gas pipeline in the Municipality of Greenstone, Ontario. To share questions or comments regarding the proposed Greenstone Pipeline Project and to learn more about Project updates and details, please contact the Greenstone Pipeline Project Team:

Email: GreenstonePipelineEA@stantec.com
Or visit the Project website at:
enbridgegas.com/about-us#projects

ENBRIDGE GAS INC.
NOTICE OF STUDY RE-COMMENCEMENT

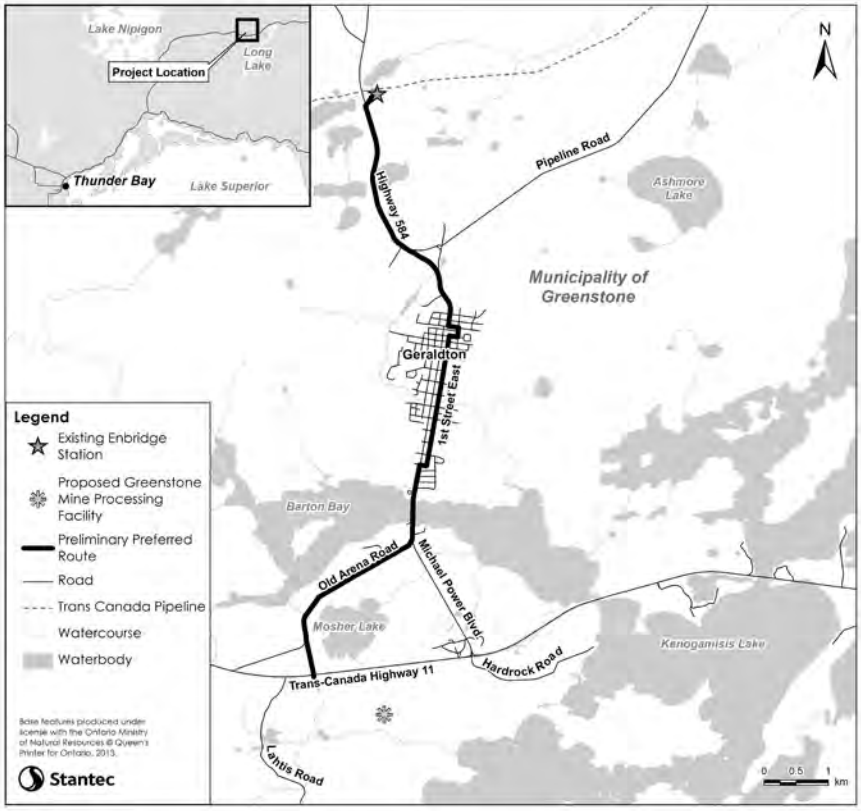
Greenstone Pipeline Project

To service Greenstone Gold Mines GP Inc.'s Greenstone Mine Project with clean, affordable natural gas, Enbridge Gas Inc. (Enbridge Gas) is proposing to construct a 13 kilometre (km) 6-inch diameter steel natural gas pipeline in the Municipality of Greenstone, Ontario.

The Greenstone Pipeline Project (the Project) will commence at the Enbridge Station located adjacent to the TransCanada pipeline, 3.5 km north of Geraldton, Ontario, and will terminate south of TransCanada Highway 11 between Lahtis Road and Hardrock Road.

Environmental Study Process

In 2014, Union Gas Inc., now Enbridge Gas, retained Stantec Consulting Ltd. (Stantec) to undertake an Environmental Study for the construction and operation of the Project. Since completion of the original study, Enbridge Gas has identified minor routing modifications near the termination point south of Highway 11. To capture the proposed modifications, Stantec will be recommencing the Environmental Study and updating the associated Environmental Report 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)". It is anticipated that the Environmental Report will be completed in Summer 2021, after which Enbridge Gas will file an application for the Project to the Ontario Energy Board (OEB). The OEB's review and approval is required before the proposed Project can proceed. If approved, construction is currently anticipated to begin in Spring 2022.



Public Consultation

Engagement with Indigenous Nations, landowners, government agencies, current customers, the general public, and other interested parties is an integral component of the environmental study process. Due to the current government restrictions on public gatherings, as a result of COVID-19, no in-person information session will be held at this time.

To share questions or comments regarding the Environmental Study or the proposed Greenstone Pipeline Project, please contact the Greenstone Pipeline Project Team:

Email: GreenstonePipelineEA@stantec.com
Or visit the Project website at: enbridgegas.com/about-us#projects

ENBRIDGE®
Life Takes Energy™

ENBRIDGE GAS INC.
AVIS DE REPRISE D'ÉTUDE

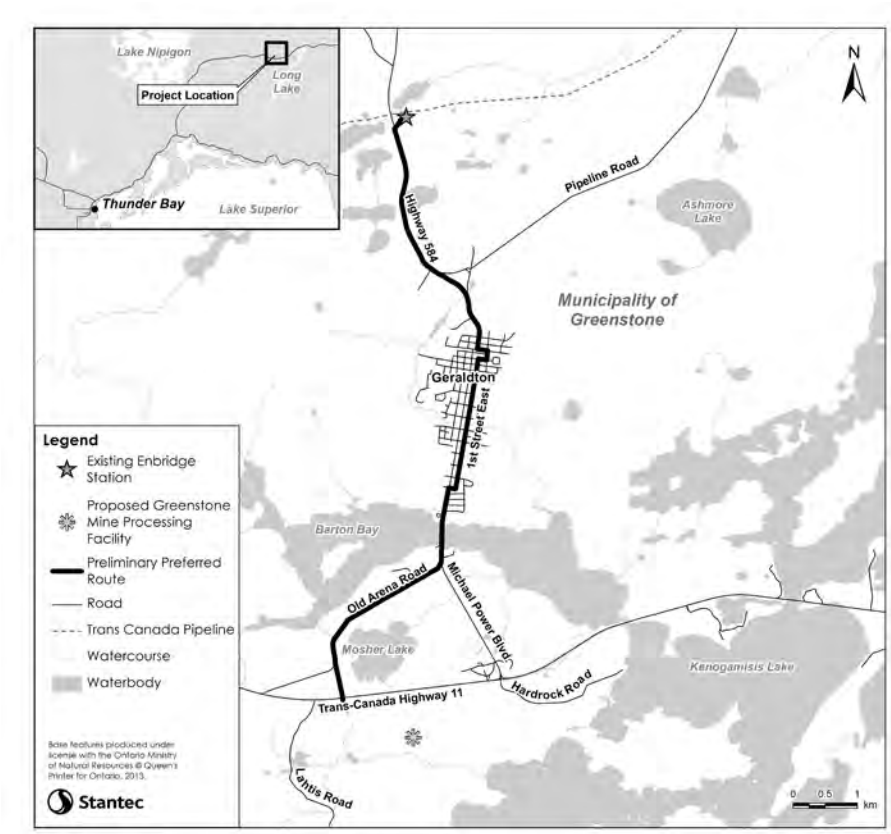
Projet de gazoduc Greenstone

Pour alimenter le projet minier Greenstone de Greenstone Gold Mines GP inc. avec du gaz naturel propre et abordable, Enbridge Gas inc. (Enbridge Gas) propose de construire un gazoduc en acier d'une longueur de 13 km et d'un diamètre de 15,2 cm (6 po) dans la municipalité de Greenstone, en Ontario.

Le projet de gazoduc Greenstone (le Projet) commence à la station Enbridge adjacente au pipeline TransCanada, à 3,5 km au nord de Geraldton (Ontario), et se termine au sud de la route 11, entre les routes Lahtis et Hardrock.

Évaluation environnementale

En 2014, Union Gas inc., maintenant Enbridge Gas, a retenu les services de Stantec Experts-conseils ltée (Stantec) pour réaliser l'étude environnementale pour le projet de construction et d'exploitation du gazoduc. Depuis la réalisation de cette étude, Enbridge Gas a effectué des modifications mineures au tracé du gazoduc près du point de terminaison. En raison des modi ications proposées, Stantec doit rouvrir l'étude environnementale et mettre à jour le rapport associé au Projet. L'étude environnementale doit satisfaire aux exigences de la Commission de l'énergie de l'Ontario (CEO) indiquées dans le document « Environmental Guidelines for Hydrocarbon Pipelines and Facilities in Ontario, 7th Edition (2016) » (Lignes directrices environnementales en matière de pipelines et d'installations destinés aux hydrocarbures en Ontario). Il est prévu que le rapport environnemental soit terminé à l'été 2021, après quoi Enbridge Gas déposera une requête pour la réalisation du Projet auprès de la CEO. La CEO doit examiner et approuver la requête avant que le projet puisse aller de l'avant. Si le Projet est approuvé, le début des activités de construction est prévu au printemps 2022.



Consultation publique

La consultation des Peuples autochtones, des propriétaires fonciers, des agences gouvernementales, des clients actuels, du grand public et de toute autre partie intéressée fait partie du processus d'évaluation environnementale. Compte tenu de la pandémie de COVID-19 et des restrictions mises en place par le gouvernement quant aux rassemblements publics, il n'y aura aucune séance d'information en personne pour le moment.
Pour transmettre vos questions ou commentaires relativement à l'étude environnementale ou au projet de gazoduc Greenstone proposé, veuillez communiquer avec l'équipe du projet Greenstone:

Courriel : GreenstonePipelineEA@stantec.com
ou consulter le site Web du projet : enbridgegas.com/about-us#projects

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APPENDIX B7
PHASE IV: LETTERS

Stantec Consulting Ltd.
100-300 Hagey Blvd, Waterloo, ON N2L 0A4

July 8, 2021

«FIRST_NAME» «SURNAME»
«POSITION»
«ORGANIZATION»
«DEPARTMENT»
«ADDRESS»
«CITYTOWN» «PROVINCE» «POSTAL_CODE»

«TITLE» «FIRST_NAME» «SURNAME»,

Reference: Enbridge Gas Inc. – Notice of Study Re-Commencement for the Greenstone Pipeline Project

To service Greenstone Gold Mines GP Inc's Greenstone Mine Project with clean, affordable natural gas, Enbridge Gas Inc. (Enbridge Gas) is proposing to construct a 14 kilometre (km) 6-inch diameter steel natural gas pipeline in the Municipality of Greenstone, Ontario. The Greenstone Pipeline Project (the Project) will commence at the Enbridge Station located adjacent to the TransCanada pipeline, 3.5 km north of Geraldton, Ontario, and will terminate south of TransCanada Highway 11 between Lahtis Road and Hardrock Road.

For more details, please refer to the map in the attached notice.

In 2014, Union Gas Inc., now Enbridge Gas, retained Stantec Consulting Ltd. (Stantec) to undertake an environmental study for the construction and operation of the Project. Since completion of the original study, Enbridge Gas has identified and proposed minor routing modifications for the Project near the termination point north of Highway 11. To capture the proposed modifications, Stantec will be recommencing the environmental study and updating the associated Environmental Report 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)".

It is anticipated that the Environmental Report for the study will be completed in Summer 2021, after which Enbridge Gas will file an application for the project to the OEB. The OEB's review and approval is required before the proposed project can proceed. If approved, construction is currently anticipated to begin in Spring 2022.

As an agency with jurisdiction or a potential interest in developments in that 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 background environmental, socio-economic, and archaeological/cultural heritage information that may be useful in compiling the inventory of the pipeline route.

To support the quality of the assessment process, we also request that you provide us with information regarding other proposed developments within vicinity of the pipeline route. This information will be

Reference: Enbridge Gas Inc. – Notice of Study Re-Commencement for the Greenstone Pipeline Project

incorporated into the Environmental Study and related report as a component of the cumulative effect's assessment. Please contact us to discuss the most efficient way to obtain this information.

Engagement with Indigenous communities, landowners, government agencies, current customers, the general public, and other interested parties is an integral component of the environmental study process. Due to the current government restrictions on public gatherings, as a result of COVID-19, no in-person information session will be held at this time.

If you have questions or comments regarding the Greenstone Pipeline Project, please do not hesitate to contact the undersigned.

Yours truly,

Stantec Consulting Ltd.



Steve Thurtell M.Sc., P.Ag., CAN-CISEC
Senior Environmental Scientist
Direct: 519 780-8108
Mobile: 519 820-4237

GreenstonePipelineEA@stantec.com

Attachment: Notice of Study Re-Commencement

c. Norm Dumouchelle, Environmental Planner, Enbridge Gas

June 8, 2021

«TITLE» «FIRST_NAME» «SURNAME», «position»
«ORGANIZATION»
«ADDRESS»
«CITY_TOWN_», «PROVINCE» «PostalCode»
«EMAIL»

Reference: Enbridge Gas Inc. Proposed Greenstone Pipeline Project, Notice of Study Re-Commencement

Dear «TITLE» «FIRST_NAME» «SURNAME»,

I am writing to advise you of an upcoming gas pipeline project in the Greenstone area and to begin engagement on the proposed work.

To service the Greenstone Gold Mines GP Inc.'s Greenstone Mine Project with clean, affordable natural gas, Enbridge Gas Inc. (Enbridge Gas) is proposing to construct a 14 kilometre (km) 6-inch diameter steel natural gas pipeline in the Municipality of Greenstone, Ontario. The *Greenstone Pipeline Project* (the Project) will commence at the Enbridge Station located adjacent to the TransCanada pipeline, 3.5 km north of Geraldton, Ontario, and will terminate south of TransCanada Highway 11 between Lahtis Road and Hardrock Road.

Due to the current government restrictions on public gatherings as a result of COVID-19, Enbridge Gas will be undertaking **remote engagement** for the Project. Please find attached the Notice of Study Commencement for further description of the Project being proposed.

In 2014, Union Gas Inc., now Enbridge Gas, retained Stantec Consulting Ltd. (Stantec) to undertake an environmental study for the construction and operation of the Project near the termination point north of Highway 11. Since completion of the original study, Enbridge Gas has identified and proposed minor routing modifications for the Project. To capture the proposed modifications, Stantec will be recommencing the environmental study and updating the associated Environmental Report for the Project.

The Study will examine and determine, from an environmental and socio-economic perspective, the impacts of the Project. Once the Environmental Report is complete, Enbridge Gas will apply to the Ontario Energy Board (OEB) for approval to construct. This Study is being conducted in accordance with the OEB's *Environmental Guidelines for the Location, Construction, and Operation of Hydrocarbon Pipelines and Facilities in Ontario* (2016).

It is anticipated that the Environmental Report for the study will be completed in Summer 2021, after which Enbridge Gas will file an application for the project to the OEB. The OEB's review and approval is required before the proposed project can proceed. If approved, construction is currently anticipated to begin in Spring 2022.

As an Indigenous community with a potential interest in the vicinity of the pipeline route, we are inviting «SURNAME» to provide comments and feedback regarding the Project. We are also seeking information about areas that may be culturally significant to your community in the vicinity of the pipeline route and

Reference: Enbridge Gas Inc. Proposed Greenstone Pipeline Project,
Notice of Study Re-Commencement

information about potential effects that the Project may have on asserted or established Indigenous and treaty rights. Stantec is presently compiling an environmental, socio-economic, and archaeological/cultural heritage inventory of the Project location. We would welcome your feedback and comments regarding the proposed Project as we undertake the requisite environmental study.

As you know, Enbridge Gas is committed to meaningful engagement with Indigenous communities. As such, we would be interested in holding a conference call with the «SURNAME» consultation office to share Project related information, should you wish. If you have any questions, would like to provide feedback or share knowledge or would be interested in setting up a briefing on this Project please feel free to contact me directly.

We kindly request that any initial input and comments regarding the Project are provided by your community by **August 22, 2021**. Please let us know if you are unable to respond by this date but are interested in participating in the consultation and engagement process for the Project.

If you have any questions or want to discuss the Project, please feel free to contact me at any time. We look forward to engaging with you to ensure your community's interests are being considered and represented.

Respectfully,

Melanie Book
ENBRIDGE GAS INC.
Sr. Advisor, Community & Indigenous Engagement
Public Affairs and Communications
613-355-6561
melanie.book@enbridge.com

Attachment: Notice of Study Commencement

c. Norm Dumouchelle, Environmental Planner, Enbridge Gas
Steve Thurtell, Project Manager, Stantec Consulting Ltd.

July 14, 2021

Dear Landowner / Resident,

Reference: Enbridge Gas Inc. – Notice of Study Re-Commencement for the Greenstone Pipeline Project

To service the Greenstone Gold Mines GP Inc.'s Greenstone Mine Project with clean, affordable natural gas, Enbridge Gas Inc. (Enbridge Gas) is proposing to construct a 13 kilometre (km) 6-inch diameter steel natural gas pipeline in the Municipality of Greenstone, Ontario. The Greenstone Pipeline Project (the Project) will commence at the Enbridge Station located adjacent to the TransCanada pipeline, 3.5 km north of Geraldton, Ontario, and will terminate south of TransCanada Highway 11 between Lahtis Road and Hardrock Road.

For more details, please refer to the map in the attached notice.

You are receiving this letter because the Project footprint is located near your property

In 2014, Union Gas Inc., Enbridge Gas retained Stantec Consulting Ltd. (Stantec) to undertake an environmental study for the construction and operation of the Project. Since completion of the original study, Enbridge Gas has identified and proposed minor routing modifications for the Project near the termination point north of Highway 11. To capture the proposed modifications, Stantec will be recommencing the environmental study and updating the associated Environmental Report 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)".

It is anticipated that the Environmental Report for the study will be completed in Summer 2021, after which Enbridge Gas will file an application for the project to the OEB. The OEB's review and approval is required before the proposed project can proceed. If approved, construction is currently anticipated to begin in Spring 2022.

Engagement with Indigenous communities, landowners, government agencies, current customers, the general public, and other interested persons is an integral component of the planning process. Due to the current government restrictions on public gatherings, as a result of COVID-19, no in-person information session will be held at this time.

To share questions or comments regarding the Environmental Study or the proposed Greenstone Pipeline Project, please contact:

Greenstone Pipeline Project Team
Email: GreenstonePipelineEA@stantec.com

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.

Yours truly,

Stantec Consulting Ltd.



Steve Thurtell M.Sc., P.Ag., CAN-CISEC
Senior Environmental Scientist
Direct: 519 780-8108
Mobile: 519 820-4237

GreenstonePipelineEA@stantec.com

Attachment: Notice of Study Re-Commencement

c. Norm Dumouchelle, Environmental Planner, Enbridge Gas Inc.

ENBRIDGE GAS INC.
NOTICE OF STUDY RE-COMMENCEMENT

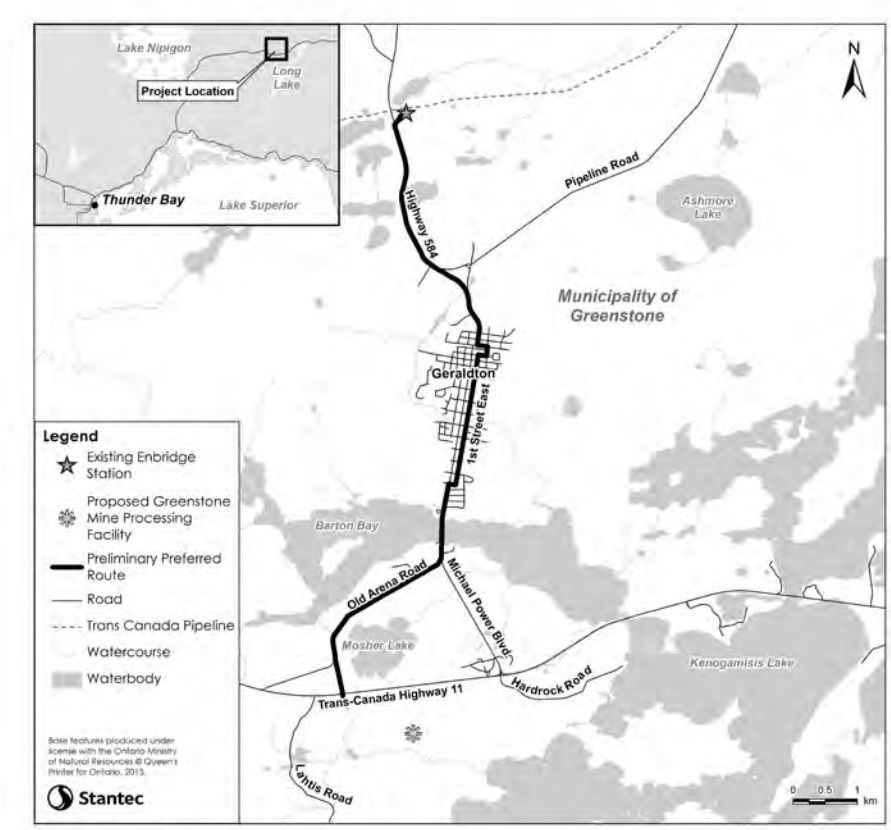
Greenstone Pipeline Project

To service Greenstone Gold Mines GP Inc.'s Greenstone Mine Project with clean, affordable natural gas, Enbridge Gas Inc. (Enbridge Gas) is proposing to construct a 13 kilometre (km) 6-inch diameter steel natural gas pipeline in the Municipality of Greenstone, Ontario.

The Greenstone Pipeline Project (the Project) will commence at the Enbridge Station located adjacent to the TransCanada pipeline, 3.5 km north of Geraldton, Ontario, and will terminate south of TransCanada Highway 11 between Lahtis Road and Hardrock Road.

Environmental Study Process

In 2014, Union Gas Inc., now Enbridge Gas, retained Stantec Consulting Ltd. (Stantec) to undertake an Environmental Study for the construction and operation of the Project. Since completion of the original study, Enbridge Gas has identified minor routing modifications near the termination point north of Highway 11. To capture the proposed modifications, Stantec will be recommencing the Environmental Study and updating the associated Environmental Report 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)". It is anticipated that the Environmental Report will be completed in Summer 2021, after which Enbridge Gas will file an application for the Project to the Ontario Energy Board (OEB). The OEB's review and approval is required before the proposed Project can proceed. If approved, construction is currently anticipated to begin in Spring 2022.



Public Consultation

Engagement with Indigenous Nations, landowners, government agencies, current customers, the general public, and other interested parties is an integral component of the environmental study process. Due to the current government restrictions on public gatherings, as a result of COVID-19, no in-person information session will be held at this time.

To share questions or comments regarding the Environmental Study or the proposed Greenstone Pipeline Project, please contact the Greenstone Pipeline Project Team:

Email: GreenstonePipelineEA@stantec.com
Or visit the Project website at: enbridgegas.com/about-us#projects

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AVIS DE REPRISE D'ÉTUDE

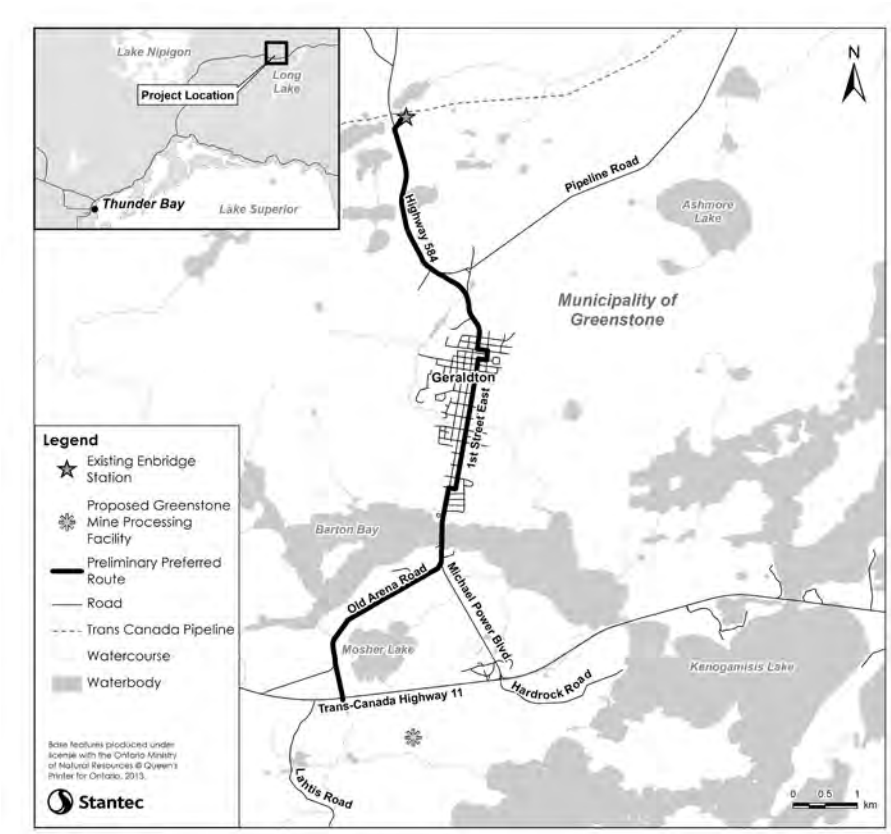
Projet de gazoduc Greenstone

Pour alimenter le projet minier Greenstone de Greenstone Gold Mines GP inc. avec du gaz naturel propre et abordable, Enbridge Gas inc. (Enbridge Gas) propose de construire un gazoduc en acier d'une longueur de 13 km et d'un diamètre de 15,2 cm (6 po) dans la municipalité de Greenstone, en Ontario.

Le projet de gazoduc Greenstone (le Projet) commence à la station Enbridge adjacente au pipeline TransCanada, à 3,5 km au nord de Geraldton (Ontario), et se termine au sud de la route 11, entre les routes Lahtis et Hardrock.

Évaluation environnementale

En 2014, Union Gas inc., maintenant Enbridge Gas, a retenu les services de Stantec Experts-conseils ltée (Stantec) pour réaliser l'étude environnementale pour le projet de construction et d'exploitation du gazoduc. Depuis la réalisation de cette étude, Enbridge Gas a effectué des modifications mineures au tracé du gazoduc près du point de terminaison au nord de la route 11. En raison des modifications proposées, Stantec doit rouvrir l'étude environnementale et mettre à jour le rapport associé au Projet. L'étude environnementale doit satisfaire aux exigences de la Commission de l'énergie de l'Ontario (CEO) indiquées dans le document « Environmental Guidelines for Hydrocarbon Pipelines and Facilities in Ontario, 7th Edition (2016) » (Lignes directrices environnementales en matière de pipelines et d'installations destinés aux hydrocarbures en Ontario). Il est prévu que le rapport environnemental soit terminé à l'été 2021, après quoi Enbridge Gas déposera une requête pour la réalisation du Projet auprès de la CEO. La CEO doit examiner et approuver la requête avant que le projet puisse aller de l'avant. Si le Projet est approuvé, le début des activités de construction est prévu au printemps 2022.



Consultation publique

La consultation des Peuples autochtones, des propriétaires fonciers, des agences gouvernementales, des clients actuels, du grand public et de toute autre partie intéressée fait partie du processus d'évaluation environnementale. Compte tenu de la pandémie de COVID-19 et des restrictions mises en place par le gouvernement quant aux rassemblements publics, il n'y aura aucune séance d'information en personne pour le moment.
Pour transmettre vos questions ou commentaires relativement à l'étude environnementale ou au projet de gazoduc Greenstone proposé, veuillez communiquer avec l'équipe du projet Greenstone:

Courriel : GreenstonePipelineEA@stantec.com
ou consulter le site Web du projet : enbridgegas.com/about-us#projects

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APPENDIX B8
COMMENT SUMMARY TABLE

Table B8.1: Correspondence Tracking – Government and Agencies

Comment Number	Stakeholder Group	Stakeholder Representative Name	Method of Communication	Date of Communication	Summary of Comment	Date of Response	Summary of Response
See Appendix B9	Municipality of Greenstone		Meeting	August 24, 2015	A meeting was held between Union Gas, now Enbridge Gas, Stantec and the Municipality to discuss the Project and environmental study.	N/A	N/A
See Appendix B1	All agencies and muncipaility on contact lists	N/A	Email	April 4, 2016	Notice of Commencement and Information Session.	N/A	N/A
1	Municipality of Greenstone	Councilor Andre Blanchard	Email	April 6, 2021	Greenstone Councilor confirmed he had received the Notice of Commencement.	N/A	N/A
2	Ministry of Municipal Affairs and Housing	Danica Edmonds, Business Support Officer	Email	April 7, 2016	Advised Project Team that Shannon Dodd Smith no longer works at the Ministry and all future correspondence should be sent to Victoria Kosny.	April 7, 2016	Stantec replied confirming that the Notice will be sent to Victoria Kosny and updated the Project Contact List accordingly.
3	Ministry of Transportation (MTO)	Cindy Brown, Head, Highway Corridor Management	Email	April 11, 2016	Advised that MTO permits may be required for the Project, including an Entrance Permit, a Building and Land Use Permit, and an Encroachment Permit.	N/A	No response sent. Stantec incoporated permit requirements into the Environmental Report for the Project.
4	Ministry of Environment, Conservation and Parks (MECP)		Email	April 15, 2016	MECP advised that the Environmental Report should address: - Water quality and quantity - Sewage and Water Supply SystemsWaste Management - Air Quality - Noise and Vibration - Land Use	N/A	N/A
5	Ministry of Energy, Northern Development and Mines (MENDM)	Dan Delaquis (MENDM)	Email	October 9, 2019	Enbridge Gas, sent an email, including a updated Project Description for the Project, noting that a Leave to Construct application will be filed with the Ontario Energy Board (OEB), and inquired as to if the Project triggers the Duty to Consult process.	January 20, 2020	The MENDM responded to the inquiry sent on December 9, 2019 and provided a letter noting that the Project may have the potential to affect Indigenous communities, and provided a list of these potentially affected communities to consult with.
6	MECP	Michelle Schott	Email	October 16, 2020	Confirmed MECP would provide comments on the Project shortly. October 16, 2020 Stantec thanked MECP for their response. October 28, 2020 MECP requested shapefiles for Project. November 3, 2020 Stantec provided shapefiles. December 7, 2020 MECP confirmed their review and asked Stantec to confirm that clearing will not occur May 1 to August 31. March 25, 2021 Stantec confirmed that clearing would not occur during that time period and indiciated their was a change to the project footprint south of Highway 17. Stantec indiciated that an addendum to the Environmental Report would be provided.	N/A	N/A
See Appendix B2	All agencies and muncipaility on contact lists	N/A	Email	July 9, 2021	Notice of Study-Commencement.	N/A	N/A

Table B8.1: Correspondence Tracking – Government and Agencies

Comment Number	Stakeholder Group	Stakeholder Representative Name	Method of Communication	Date of Communication	Summary of Comment	Date of Response	Summary of Response
7	Transport Canada (TC)	Environmental Assessment Program, Ontario Region	Email	July 15, 2021	Thanked Stantec for correspondence and provided details on how proponents/consultants can self-assess if their Project is an interest to TC.	N/A	N/A
8	Environment and Climate Change Canada (ECCC)	Denise Fell	Email	16-Jul-21	On the behalf of Wesley Plant, EA section manager, Ms. Fell inquired ECCC has a mandate to participate in this review. Ms. Fell asked that the following information be provided to better determine ECCC interest in the Project: Will occur at all on federal (or First Nation) land? Is there are potential SARA listed species at risk issues? Is there are any other federal departments with a power, duty or function What link this has if any to the Hardrock Mine project that ECCC has been	28-Jul-21	Stantec responded to the ECCC comments and provided the following answers. Will occur at all on federal (or First Nation) land? The Project will not occur on federal (or First Nation) land. However, the MENDM, whom delegates the procedural aspects of consultation in respect to the Project, has identified that the following Indigenous communities be consulted on the basis that they have or may have constitutionally protected Aboriginal or Treaty rights that may be adversely affected by the Project: Ginoogaming First Nation, Aroland First Nation, Red Sky Independent Nation, Greenstone Metis Council, and Long Lake 58 First Nation. Is there are potential SARA listed species at risk issues? No species listed on Schedule 1 SARA as extirpated, endangered, or threatened were identified during the field program which took place in 2018 and 2021. Should aquatic species and SARA terrestrial species be identified during the 2021 field program, Enbridge Gas will record those findings in the Environmental Report for the project and consult with the DFO or ECCC accordingly. Is there are any other federal departments with a power, duty or function (such as for funding, permitting, etc.)? Enbridge Gas will be required to obtain environmental permits and approvals from federal and provincial agencies and the Municipality, as outlined in the Environmental Report. As part of the environmental study for the Project, Enbridge Gas has consulted with agencies and the municipal staff to determine interest in the project and permitting requirements. A copy of the Agency and Municipal Contact List will be provided in the Environmental Report. What link this has if any to the Hardrock Mine project that ECCC has been involved in? The Greenstone Pipeline Project will service the Hardrock Mine (now Greenstone Gold Mine) Project.
9	Ministry of Heritage, Sport, Tourism and Culture Industries	Karla Barboza	Email	July 19, 2021	Advised Project Team that Joseph Harvey should be contacted in liue of Katherine Kirzati.	July 19, 2021	Stantec replied confirming that the Notice will be sent to Joseph Harvey and updated the Project Contact List accordingly.

N/A – Not Available

Table B8.2: Correspondence Tracking – Indigenous Communities

Comment Number	Community	Community Representative Name	Method of Communication	Date of Communication	Summary of Comment	Date Response Provided	Summary of Response
See Appendix B1	All communities on contact list	N/A	Email	April 4, 2016	Notification letter and map sent to all communities and contacts on the Indigenous Communities contact list.	N/A	N/A
See Appendix B2	All communities on contact list	N/A	Email	July 14, 2021	Notification of Study Re-Commencement letter and map sent to all communities and contacts on the Indigenous Communities contact list.	N/A	N/A

N/A – Not Available

Table B8.3: Correspondence Tracking – Landowners and Public

Comment Number	Stakeholder Group	Method of Communication	Date of Correspondence	Summary of Comment	Date Response Provided	Summary of Response
N/A	Landowners / Residents	Letter (Canada Post unaddressed mail)	April 1, 2016	Notice of Commencement and Open House sent to landowners within the Study Area.	N/A	N/A
N/A	Landowners / Residents	Newspaper Notice (Times Star)	April 16, 2020	Notice of Commencement and Open House published in newspaper.	N/A	N/A
N/A	Landowners / Residents	Television Ad	April 16, 2020	Notice of Commencement and Open House advertised on the local television station	N/A	N/A
N/A	Landowners / Residents	Letter (Canada Post unaddressed mail)	July 14, 2021	Notice of Study Re-Commencement to landowners within the Study Area.	N/A	N/A
N/A	Landowners / Residents	Newspaper Notice (Times Star)	July 14, 2021	Notice of Study Re-Commencement published in newspaper.	N/A	N/A
N/A	Landowners / Residents	Television Ad	July 14, 2021- July 28, 2021	Notice of Study Re-Commencement advertised on the local television station	N/A	N/A
N/A	Landowners / Residents	Phone call	July 28, 2021	Landowner [redacted] called and left a voicemail to inquire on the Project impacts.	July 28, 2021	Stantec returned the call. The landowner lives on [redacted] and had received the mailed-out letter. Stantec provided details on the socio-economic and environmental impacts of the Project.
N/A	Landowners / Residents	Phone call	July 29, 2021	Landowner [redacted] called and left a voicemail to noting that they were having issues accessing the webpage.	July 29, 2021	Stantec returned the call and noted that they would be looking into the issue with the website and would follow-up.

N/A – Not Available

Table B8.4: Correspondence Tracking – Open House Participants

Comment Number	Stakeholder Group	Method of Communication	Date of Correspondence	Summary of Comment	Date Response Provided	Summary of Response
1	Landowners / Residents	Virtual Open House Questionnaire	April 20, 2020	**Landowner (contact details not provided)** Indiciated that the Project does not have any impacts to property or business but disagreed with the Preliminary Preferred Route.	April 20, 2020	N/A
2	Landowners / Residents	Virtual Open House Questionnaire	April 20, 2020	**Landowner (contact details not provided)** Agreed with the Preliminary Preferred Route.	April 20, 2020	N/A

APPENDIX B9
MINUTES FROM MEETING WITH THE MUNICIPALITY OF GREENSTONE

Greenstone Gold – Geraldton,ON

Meeting with Municipality

Date: August 24th, 2015

Attendees: Bill Andryechen, Johanna Sanchez, Gaston Proteau, Mike Carnevale (Link Line), Norm Dumouchelle, Ron Beaulieu (Mayor), Brian Aaltonen (Director of Public Services), Mark Wright (Economic Development Officer), Roy T. Sinclair (Chief Administrative Officer)

Union Gas presented the Greenstone municipality the proposed running line and explained the work completed to date and the reasoning behind the selection.

The municipality had the following concerns:

- Public Safety – what will/does UG do to ensure there are no catastrophic failures on the high pressure pipeline. There have been two recent incidents in the area, TCPL pipeline rupture and house explosion with one fatality that has the municipality concerned with future incidents
- Emergency response and third party observation – The town has concerns with UG support on 3rd part observation and locates mainly regarding water breaks in the winter time. They have on average 80 water breaks in the spring where some could be near the new proposed line
- Safety and Construction practices – they want to see more evidence that they can show the public that UG will installing and maintaining a safe infrastructure. I.e our safety record, mitigations, pipe specs , NDE , hydrostatic test
- Open house to see public's interests/concerns – the town would like UG to hold an open house prior to bringing the proposal to council and address the public concerns
- Capacity of the line – they want to know if the current design includes provisions for the Northland Power proposal

Action items:

- Complete an executive summary for the town to share with council prior to the open house. This should identify the proposed running line, high level timelines and high level parameters
- Schedule open house (to be completed in 2015)
- Environmental Assessment to also encompass the cross country route

APPENDIX C
EXISTING CONDITIONS FIGURES

\\Ca0220-ppfss01\work_group\01609\active\160960975\drawing\MXD\APC\ReportFigures\Environmental_Report\Appendix\C\160961408_Fig_C1_SurficialGeology_20210730.mxd
Revised: 2021-07-30 By: CLee

LEGEND

Note: compound unit: for example, 4/3 indicates a veneer of less than 1 m of unit 4 overlying unit 3; colour based on underlying unit

SURFICIAL DEPOSITS
QUATERNARY

POSTGLACIAL ENVIRONMENT

8 — *ALLUVIAL DEPOSITS: gravelly sand, sand, silt, organic detritus; 1-3 m thick; deposited on floodplains by existing streams*

7 — *ORGANIC DEPOSITS: peat, muck; 1-2 m thick; deposited in poorly drained depressions where lack of aeration prevents decomposition of organic matter*

PROGLACIAL AND GLACIAL ENVIRONMENTS

GLACIOFLUVIAL AND GLACIOLACUSTRINE DEPOSITS: sand and gravel, minor silt and clay; 1-75 m thick; deposited by glacial meltwater

6 — *Subaqueous outwash and associated glaciolacustrine sediment: rippled silty fine to very fine sand, silt and minor clay as thin interbeds; 1-75 m thick; sheet sands in topographic lows, commonly reworked into dunes; deposited in glacial lakes by sediment-laden meltwater turbidity currents derived from the ice margin*

5 — *Outwash: sand and gravelly sand; 1-10 m thick; generally planar surface; deposited by meltwater beyond the ice margin in the the beds of braided streams and in shallow, restricted portions of glacial lakes*

4 — *Ice contact glaciofluvial sediments: sand and gravel; 1-30 m thick; occurs in belts with single or multiple esker ridges, kames, and kettle holes; deposited by melt-water in contact with glacial ice*

GLACIAL DEPOSITS: gravelly, sandy to silty matrix-supported diamictons, 1-60 m thick; dominantly massive tills deposited beneath sliding glacial ice

3 — *Thick till: gravelly clayey silt to gravelly sandy silt diamicton containing abundant Paleozoic carbonate and Proterozoic metasediments derived from the Hudson Bay Lowland, grades laterally to sandier more locally derived till within unit 2; 1-60 m thick; forms elongate drumlins and flutes; deposited beneath and by sliding glacial ice, includes scattered graded supraglacial sediment flow diamictons at surface*

2 — *Thin till and other discontinuous drift (bedrock-drift complex): gravelly silty sand diamicton consisting of locally derived debris except in the northeastern portion of the map area where thin exotic till occurs, thin sand and gravel in areas adjacent to glaciofluvial and glaciolacustrine deposits; < 1 m thick; 15 to 75% bedrock outcrop; largely locally derived sandy till deposited beneath and by sliding glacial ice as well as colluvium*

BEDROCK
PRECAMBRIAN

1 — *METASEDIMENTARY, METAVOLCANIC, AND INTRUSIVE ROCKS: >75% bedrock outcrop; generally unweathered; glacially scoured irregular surface in areas of Archean granitic, metavolcanic and metasedimentary rocks; abrupt ridges formed by Proterozoic diabase occur near Lake Nipigon; includes patches of thin drift*

Notes

1. Coordinate System: NAD 1983 UTM Zone 16N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2017.
3. Surficial Geology after Kristjansson, F.J. and L. H. Thorlefison, 1991. Geological Survey of Canada, Map 1768A; Ontario Geological Survey, Map 2535.

0 0.5 1 Km
1:30,000

July 2021
160961408

Stantec

Legend

- Study Area
- Study Area (100 m)
- Preferred Route

Existing Features

- Highway
- Major Road
- Local Road
- Railway
- Watercourse- Permanent
- Watercourse- Intermittent
- Waterbody

Client/Project
Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix A

Figure No.
C1

Title
Surficial Geology

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Revised: 2021-07-30 By: CLee

N

Marie Lake
WC- W
Reesor Creek
Annette Lake
Dionne Lake
Dafoe Lake
Highway 584
Ashton Lake
Cecile Lake
Pipeline Road
Yvonne Lake
Emilie Lake
6102299
6102037
6102278
6102300
Quintuplet Lake
Dionne Creek
WC-Y
6100066
7235730
6102306
7244785
7188905
7185572
7185573
Geraldton
1St Street West
Main Street
Hardrock Creek
7240699
1St Street East
Magnet Creek
Kenogamisis Lake (Outlet Basin)
Barton Bay (West)
6100055
WC- A
Michael Power Blvd.
Barton Bay (East)
WC- C
7219908
7219907
6100001
WC- B
GCP-1
GCP-3
GCP-2
WC- I
7246262
7245884
Mosher Lake
6102111
WC- D
WC- GH
Glory Hole
7240758
7239264
Trans-Canada Highway 11
Old Arena Road
WC- F
WC- H
Hardrock Road
7170458
7188338
Kenogamisis Lake (Central Basin)
Pond A
WC- J1
7219902
WC- G
Lahtis Road
SW Arm Tributary
SWP4
SWP3
SWP2
SWP1
WC- M
7219900
Kenogamisis Lake (Southwest Arm)

0 0.5 1 Km
1:30,000

499000 500000 501000 502000 503000 504000 505000 506000
5512000 5511000 5510000 5509000 5508000 5507000 5506000 5505000 5504000 5503000 5502000

July 2021
160961408

Notes

1. Coordinate System: NAD 1983 UTM Zone 16N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2017.
3. Water Well Records produced under license with the Ontario Environment and Climate Change © Queen's Printer for Ontario, 2017.
4. Soils mapping was initially based on the Ministry of Natural Resources and Forestry, Forest Resource Inventory. The mapping was then refined by Stantec based on air photo interpretation and field surveys.

Stantec

Legend

- Study Area
- Study Area (100 m)
- Preferred Route
- Water Well Record (MOECC)

Soils Type
- Developed Land
- Dunbar
- Muck
- Scotia

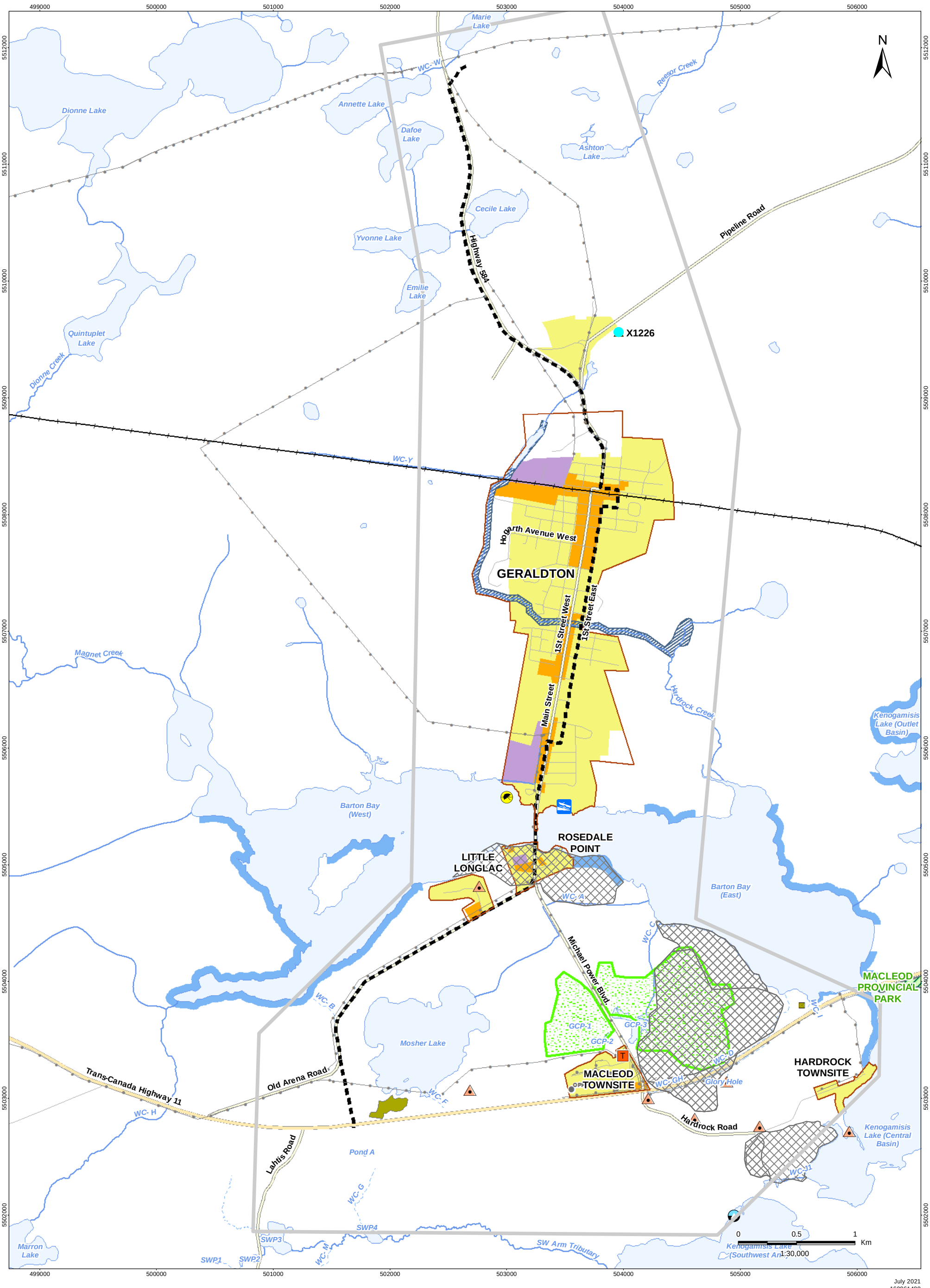
Existing Features
- Contour Line (10 m intervals)
- Highway
- Major Road
- Local Road
- Railway
- Watercourse- Permanent
- Watercourse- Intermittent
- Waterbody

Client/Project
Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix C: Existing Conditions

Figure No.
C2

Title
Soils

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Revised: 2021-07-30 By: CLee



July 2021
160961408

Stantec

Notes

1. Coordinate System: NAD 1983 UTM Zone 16N
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Legend

- Study Area
- Preferred Route

Socio-Economic Features

- Public Access Point (Crown Land Campsite)
- Public Beach
- Public Boat Launch
- MTO Yard
- OPP Station
- Transformer Station
- Golf Course
- Mosher Pit

Contaminated Sites

- Historical Mine Shafts
- Small Landfill Sites :
- Historic Tailings Area

Official Plan Land Use (Municipality of Greenstone)

- Environmental Protection
- Lakefront District
- Industrial District
- Commercial District
- Residential District
- Urban Settlement Area

Existing Features

- Highway
- Major Road
- Local Road
- Railway
- Watercourse- Permanent
- Watercourse- Intermittent
- Waterbody

Client/Project

Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix C: Existing Conditions

Figure No.

C3

Title

Socio Economic Features

\\Ca0220-ppfss01\work_group\160961408\active\60966975\drawing\MXD\APC\ReportFigures\Environmental_Report\AppendixC\160961408_Fig_C4_AquaticHabitat_and_FishSampling_Loc_20210730.mxd
Revised: 2021-07-30 By: CLee

N

Marie Lake
WC-W-MT01
WC- W
Reesor Creek
Annette Lake
Dionne Lake
Dafoe Lake
Ashton Lake
Cecile Lake
CELK-MT01
WC- X
Yvonne Lake
WC-X-MT01
Pipeline Road
Highway 584
Emilie Lake
Quintuplet Lake
Dionne Creek
WC-Y
HCR2-MT01
HCR2-BP02
Hogarth Avenue West
1St Street East
Geraldton
HCR2-BP01
1St Street West
Main Street
Hardrock Creek
Magnet Creek
KLBB-HN01
KLBB-BT01
Barton Bay (West)
MNRF-GN29
MNRF-GN17
MNRF-GN30
Barton Bay (East)
KLBB-BT02
WC- A
Kenogamisis Lake (Outlet Basin)
WC-C
Michael Power Blvd.
KLBB-BT03
WC-B
WC-B-MT03
WC-B-MT02
WC-B-MT01
Mosher Lake
GCP-1
GCP-3
WC-E
GCP-2
Glory Hole
WC- GH
Trans-Canada Highway 11
Old Arena Road
WC- H
WC-G-MT04
WC- F
WC-G-MT03
Hardrock Road
Pond A
Lahtis Road
Kenogamisis Lake (Central Basin)
WC-J1
WC-G
SWP3
SWP4
SW Arm Tributary
Marron Lake
SWP1
WC-L
SWP2
Kenogamisis Lake (Southwest Arm)

0 0.75 1.5 Km
1:30,000

499000 500000 501000 502000 503000 504000 505000 506000
5512000 5511000 5510000 5509000 5508000 5507000 5506000 5505000 5504000 5503000 5502000

July 2021
160961408

Stantec

Notes
1. Coordinate System: NAD 1983 UTM Zone 16N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2015.

Legend

Study Area
Preferred Route

Fishing Methods
Minnow Trap
Backpack Electrofishing
Boat Electrofishing
Hoop Net
2013 MNRF Broadscale Netting Program

Existing Features
Contour Line (10 m intervals)
Highway
Major Road
Local Road
Railway
Watercourse- Permanent
Watercourse- Intermittent

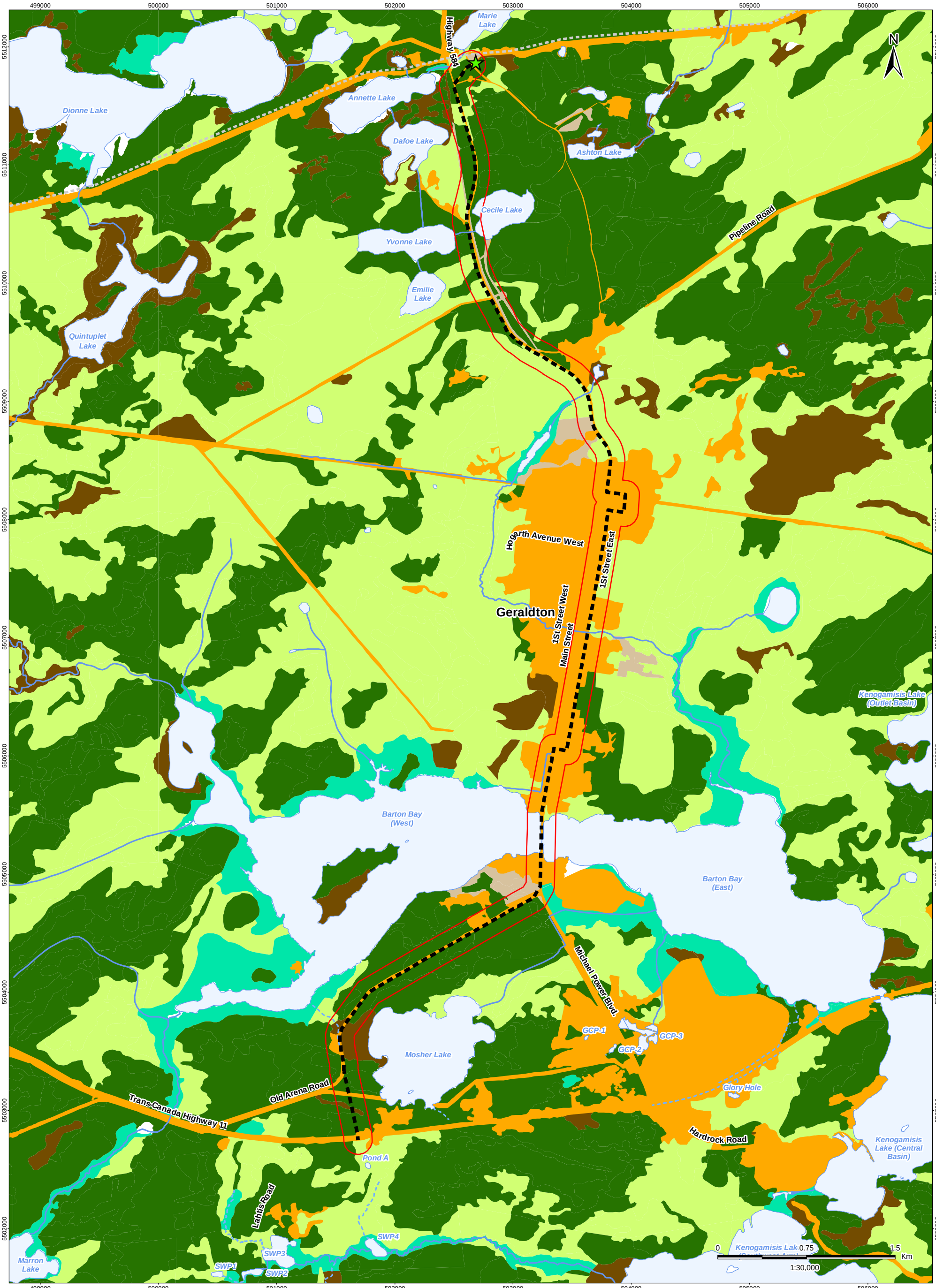
Provincial Park
Waterbody

Client/Project
Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix C: Existing Conditions

Figure No.
C4

Title
Aquatic Habitat and Fish Community Sampling Locations.

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Revised: 2021-07-30 By: CLee



July 2021
160961408

Stantec

Notes
1. Coordinate System: NAD 1983 UTM Zone 16N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2017.

Legend

- Study Area (120 m)
- Existing Enbridge Gas Station
- Trans Canada Pipeline
- Preferred Route

Upland Vegetation Communities
- Forest
- Meadow

Wetland Vegetation Communities
- Fen
- Marsh
- Swamp

Disturbed Vegetation Communities
- Disturbed (Includes Built Up Areas)

Existing Features
- Contour Line (10m intervals)
- Highway
- Major Road
- Local Road
- Railway
- Watercourse- Permanent
- Watercourse- Intermittent
- Waterbody

Client/Project
Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix C: Existing Conditions

Figure No.
C5

Title
Land Classification

APPENDIX D
TERRESTRIAL REPORT

Greenstone Pipeline Project: Existing Conditions Report – Terrestrial Ecosystems

FINAL REPORT

August 9, 2021

Prepared for:
Enbridge Gas Inc.
50 Keil Drive
Chatham ON N7M 5M1

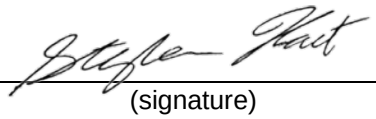
Prepared by:
Stantec Consulting Ltd.
1-70 Southgate Drive
Guelph, ON N1G 4P5

File: 160960975

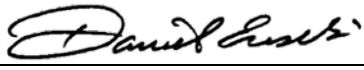
Revision: A

Limitations and Sign-off

This document entitled Greenstone Pipeline Project: Existing Conditions Report – Terrestrial Ecosystems was prepared by Stantec Consulting Ltd. (“Stantec”) for the account of Enbridge Gas Inc. (the “Client”). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec’s professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by 
(signature)

Stephen Hart, PhD, R.P. Bio
Environmental Scientist

Approved by 
(signature)

Dan Eusebi, BES, MCIP, RPP
Senior Environmental Planner

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Abbreviations

COSEWIC	Committee on the Status of Endangered Wildlife in Canada
COSSARO	Committee on the Status of Species at Risk in Ontario
END	endangered
ESA	*Endangered Species Act,* 2007
FRI	Forest Resource Inventory
FWCA	*Fish and Wildlife Conservation Act,* 1997
MBCA	*Migratory Birds Convention Act,* 1994
MNDM	Ministry of Northern Development and Mines
MNRF	Ministry of Natural Resources and Forestry
NBS	Northern Bioscience Ecological
NHIC	Natural Heritage Information Centre
OBBA	Ontario Breeding Bird Atlas
OPIAM	Ontario Parks Inventory and Monitoring Plots
PA	*Planning Act,* 1990
PPS	Provincial Policy Statement
SAR	Species at Risk

SARA	*Species at Risk Act, 2002*
SARO	Species at Risk in Ontario list
SC	Special Concern
SOCC	Species of Conservation Concern
THR	threatened

1.0 INTRODUCTION

Enbridge Gas Inc. retained Stantec Consulting Ltd. (Stantec) to undertake an environmental study for the proposed construction of a new 6-inch (15.24 centimetre) diameter steel natural gas pipeline within the Municipality of Greenstone, Ontario (the Project). The Greenstone Pipeline Project (the Project) will commence at the Enbridge Station located adjacent to the TransCanada pipeline, 3.5 km north of Geraldton, Ontario, and will terminate south of TransCanada Highway 11 between Lahtis Road and Hardrock Road (**Figure A-1, Appendix A**).

The intent of this environmental study was to assist in the identification of a preferred route for the Project that minimizes environmental impacts. The Project Study Area includes the pipeline route and adjacent natural features intersected by the route, and defines the potential impacts from the proposed construction (**Figure A-1, Appendix A**).

2.0 REGULATORY SETTING

2.1 SPECIES AT RISK ACT, 2002

The federal *Species at Risk Act,* 2002 (SARA) was created to prevent wildlife species from becoming extirpated (i.e., extinct in Canada). SARA protects species at risk and their critical habitats, and contains provisions to help manage species of special concern in order to prevent them from becoming endangered or extinct. It includes prohibitions against killing, harming, harassing, capturing or taking species at risk and makes it illegal to destroy their critical habitats.

Species thought to be at risk in Canada are assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). COSEWIC is an independent body that reviews species based on best available scientific data. The committee meets annually to review status reports on species suspected of being at risk and provides assessments to government and the public. The federal Cabinet then decides whether those species should receive legal protection under the SARA. These decisions are made after consultations with affected stakeholders and other groups. Once a species is added to the list of species at risk and legally protected under the SARA, a recovery strategy must be developed. These recovery strategies detail the specific steps that need to be taken to protect the identified species.

SARA's legislative coverage extends only to federal lands while the Ontario *Endangered Species Act,* 2007 (ESA) covers public and private lands.

For the purposes of this report, SAR designations default to conditions outlined in the ESA (Section 1.2) with any discrepancies in protection or designation covered under Species of Conservation Concern (SOCC) (Section 1.3).

2.2 ENDANGERED SPECIES ACT, 2007

The *Endangered Species Act* (ESA) was created in 2007 to protect at risk species in Ontario that are at risk and their habitats, and to promote the recovery of species that are at risk. The ESA prohibits the killing, harming, harassing, capturing, or taking of a living member of a species listed as threatened, endangered, or extirpated by the Species at Risk in Ontario (SARO) list, and damage to the habitat of protected species.

Species thought to be at risk in Ontario are assessed by the Committee on the Status of Species at Risk in Ontario (COSSARO). COSSARO is an independent body that reviews species based on the best available science, including community knowledge and Aboriginal traditional knowledge. Once species are classified at risk, they are added to the Species at Risk in Ontario (SARO) list in one of four categories (extirpated, endangered, threatened or special concern).

Extirpated, endangered and threatened species on this list automatically receive legal protection under the ESA. The ESA also provides protection for the habitat of protected species. When a species is classified endangered (END) or threatened (THR), the habitat of that species is protected. For the purposes of this report, species listed as Special Concern (SC) are covered as SOCC (Section 1.3).

2.3 OTHER WILDLIFE REGULATORY PROTECTIONS

The federal *Migratory Birds Convention Act,* 1994 (MBCA) provides legal protection of migratory birds and their nests on all lands within Canada. Many other non-migratory birds are covered in Ontario under the *Fish and Wildlife Conservation Act,* 1997 (FWCA), such as raptors and their nests.

Species covered under the *Fisheries Act,* 1985 will be addressed in the Fisheries Specialist Report provided under separate cover (Stantec 2017).

2.4 PLANNING ACT, 1990 / PROVINCIAL POLICY STATEMENT

The *Planning Act*, 1996 (PA) co-ordinates planning in the Province of Ontario. It sets out the ground rules for land use planning throughout the province and describes how land uses may be controlled and who may control them. In terms of Natural Heritage policy specifically, the PA requires that municipal planning authorities “shall have regard to matters of provincial interest.” The Provincial Policy Statement (PPS) was issued under Section 3 of the PA and came into effect on May 22, 1996. It has been since updated in 2020. Section 2.1 of the PPS deals with Natural Heritage and requires natural heritage systems to be identified in various ecoregions including Ecoregion 3W-4, which encompasses the study area. While not applicable to this report, the significant wildlife habitat criteria schedule for ecoregion 3W have been referenced in the identification of wildlife habitat.

3.0 METHODS

This study is based on a review of existing background information conducted by Stantec and field investigations undertaken by Northern Bioscience (NBS).

3.1 BACKGROUND REVIEW

Preliminary Information on the presence of SAR, SOCC and existing natural features within the Study Area was identified through a review of existing published data, consultation with various public agencies, web-based mapping programs and other environmental reports relating to the Study Area. Consulted sources include:

Federal Sources

- Environment Canada SARA Registry online database (EC 2021)

Provincial Sources

- Natural Heritage Information Centre database. Natural Areas and Species records search (NHIC 2021)
- Ontario Ministry of Natural Resources and Forestry (MNRF) Land Information Ontario digital mapping of natural heritage features (MNRF 2021)
- Ministry of Northern Development and Mines' (MNDM) Abandoned Mine Information System (MNDM 2014)
- Information Request submitted to Thunder Bay District MNRF. Email from N. Kopysh to K. McNaughton. July 25, 2017

Other Data Sources

- Stantec Consulting Ltd. (Stantec). 2018. Hardrock Project Final Environmental Impact Statement/Environmental Assessment with Supplemental Information Added. Prepared for: Greenstone Gold Mines GP Inc. Prepared for Greenstone Gold Mines GP Inc. August 2018.
- Stantec Consulting Ltd. 2016. Supplemental 2015 Terrestrial Data Report – Hardrock Project. Prepared for Greenstone Fold Mines GP Inc. January 2016.
- Stantec Consulting Ltd. 2015. Environmental Baseline Data Report – Hardrock Project: Terrestrial. Prepared for Premier Gold Mines Limited. January 26, 2015. 50 pp, plus appendices.
- Important Bird Areas database (Bird Studies Canada and BirdLife International, undated)
- Atlas of the Mammals of Ontario (Dobbyn 1994)
- Reptile and Amphibian Atlas of Ontario (Ontario Nature 2017)
- Ontario Breeding Bird Atlas (Cadman et al. 2007)
- Christmas Bird Count database (National Audubon Society 2010)

- Kenogami Forest Management Plan (Terrace Bay Pulp 2011)

3.2 FIELD INVESTIGATIONS

Background information was supplemented with a comprehensive field program undertaken by NBS ecologists in 2014, 2015 and 2016 to document existing conditions in the Study Area.

3.2.1 Vegetation

3.2.1.1 Ecosite Identification and Botanical Surveys

Stantec and NBS prepared preliminary ecosite mapping for the Study Area using Forest Resource Inventory (FRI) data and aerial photographs. Vegetation sampling techniques followed the Ontario Parks Inventory and Monitoring Plots (OPIAM) sampling protocol. Ecosite, landform type, ground cover, coarse woody debris and dominant plant species were then refined through field investigations conducted by NBS. Community characterizations were determined using the current Provincial Ecosite Classification System (Banton et al. 2009).

During each ecosite survey, the presence of plant species was recorded. Provincial significance of vegetation species was assessed using the rankings assigned by the NHIC (2015).

Flora nomenclature was based on the Ontario Plant List (Newmaster *et al.* 1998). However, many updates to genera, specific epithets and family names have been made to reflect recent taxonomic revisions. The primary source of these updates is Michigan Flora Online (Reznicek *et al.* 2011). Botanical nomenclature and associated colloquial names follow the updated list of Ontario vascular plants produced by the NHIC (2015) and Michigan Flora Online (Reznicek *et al.* 2011).

3.2.2 Wildlife

3.2.2.1 Calling Anurans

Amphibian call count surveys were conducted referencing the protocol for the Marsh Monitoring Program (Bird Studies Canada 2003).

The amphibian call counts record four levels of calling:

- 0 – None heard
- 1 – Individuals can be counted, and calls are not overlapping
- 2 – Numbers of some individuals can generally be estimated or counted, others overlapping
- 3 – Full chorus, calls continuous and overlapping, and individuals not distinguishable

Surveys began at least one-half hour after sunset and were completed before midnight. Surveys were conducted on nights with low winds (generally 0-2 on the Beaufort Scale), and no precipitation. Temperatures during the survey were generally between 8-14°C in May and between 15-21°C in June.

The surveyor stood each station and listened for a 3-minute window. If recorded within 100 m of the surveyor, amphibians were recorded with calling activity ranked using calling codes of 0-3. All calling activity heard outside the point count station (outside 100 m of the point count, or outside of the Study Area) or as incidental observations during other field investigations were also noted.

3.2.2.2 Salamander Breeding

Habitat assessments through the field verification of vegetation ecosites were conducted for salamander species with the potential to occur within the Study Area. Further investigation was conducted in May or June to confirm features that could support breeding salamander habitat. Ecosite communities targeted included lowland forest and wetland, where the following characteristics were present:

- Fishless waterbodies
- Pools of water that would typically dry by mid to late summer
- Located within or near a woodland
- Presence of egg attachment sites available such as low shrubs, twigs, fallen tree branches, submerged riparian vegetation or emergent vegetation

All observations of salamanders or salamander egg masses were recorded.

3.2.2.3 Snake Hibernacula

Snake hibernacula are overwintering areas that include features such as animal burrows, rock crevices, fractured rocks at the base of cliffs or karst areas that provide an access for snakes to hibernate below the frost line (MNRF 2000). These areas are often associated with water to prevent desiccation of the animals.

Searches and habitat assessments for potential snake hibernacula were conducted within the Study Area. The habitat assessment involved the identification of snake habitat components, including:

- Potential hibernacula, such as rock outcrops or old foundations
- Potential nesting sites, such as fallen rotting logs

Any observations of snakes were recorded.

3.2.2.4 Turtle Surveys

Habitat assessments and incidental turtle basking surveys were conducted concurrently with other field investigations for. Wintering areas for turtles typically occur in the same general area as their core nesting habitat. Areas of open water (lakes) were surveyed for suitability of turtle overwintering habitat and any turtle observations were recorded.

3.2.2.5 Dawn Breeding Bird

The main habitat types identified in the Study Area were surveyed during the breeding bird season (late May through early July) with two rounds of targeted breeding bird point counts. All species seen and heard were recorded, along with the number of individuals detected, the point count location, and the level of breeding evidence observed, as defined in the Ontario Breeding Bird Atlas (Cadman et al. 2007). Breeding bird surveys targeted both natural and anthropogenic habitats.

Point counts occurred within one half hour of sunrise and were completed by 10:00 a.m. Weather conditions (i.e., precipitation and visibility) were within the parameters required by monitoring programs such as Environment Canada's Breeding Bird Survey (Environment Canada 2016), the Ontario Breeding Bird Atlas (Cadman et al. 2007) and the Ontario Forest Bird Monitoring Program (Bird Studies Canada 2004) (i.e. low winds and little or no precipitation). Ten-minute point-counts were conducted at each survey station. Bird observations were recorded at four distance regimes: within a 50 m radius, 50 to 100 m, outside the 100 m radius and flyovers; if an individual was heard calling from 2 distance regimes, the closest distance regime was recorded. At each point count station, all birds seen or heard in the first three minutes were recorded separately from all birds seen or heard for the first time in the following two minutes, and similarly, in the following five minutes to capture and record only once each bird observed during the point count. Point count stations were selected to capture one ecosite type (where possible). For each point count, a hand help GPS unit was used to geo-reference the location.

3.2.2.6 Crepuscular Breeding Bird

Evening bird surveys designed to target Common Nighthawk and Eastern Whip-poor-will were conducted within 1 km of the Study Area. Surveys occurred at night under appropriate weather conditions based on the monitoring program outlined in the Whip-poor-will Roadside Survey Participants Guide (Bird Studies Canada 2013). Surveys were conducted as close to the full moon as possible between late May to early June, and late June to early July. Each round of surveys comprised of six-minute roadside point-counts at monitoring stations spaced a maximum of 1 km apart along the preferred route.

3.2.2.7 Waterbird Migration

Waterfowl

A survey was conducted targeting the fall migration of waterfowl at lakes and ponds in the Study Area. Species, number of individuals and behaviour (i.e., migrating, feeding, etc.) were recorded. Each site was monitored between 5 to 15 minutes, depending on the size of habitat and number of waterfowl present.

American White Pelican

A survey targeting American White Pelican were conducted on Kenogamisis Lake within the Study Area. All observations of waterfowl were noted, along with species' numbers, behaviour, and evidence of breeding.

3.2.2.8 Endangered Bat Species

Field investigations were conducted to identify bat habitat within the Study Area. Surveys included habitat assessments to identify suitable bat roosting habitat, foraging habitat, and hibernacula areas, in addition to acoustic monitoring.

Automated and handheld acoustic recorders were deployed in the Study Area to monitor bat activity within the Study Area. Models of audio-recorders used for bat surveys were SM2Bat+ (Wildlife Acoustics) and hand-held devices were Echometer Touch (Wildlife Acoustics).

In Ontario, there are currently no established guidelines for documenting the use of bat habitats based on acoustic surveys. Acoustic detectors can be used to record species of bats flying overhead but such observations cannot be directly attributed to specialized habitat use. As such, the surveys described below were used to identify potential habitat for endangered bat species in the Study Area.

Maternity Roost Habitat Assessment

According to MNRF's Bat and Bat Habitat Guidelines (MNRF 2011), the best candidate trees for maternity roosting colonies will be supported by several characteristics, including, but not limited to: tree height, diameter, loose/peeling bark, cavity height and areas of open canopy. Natural bat maternity roost habitat assessments were completed in areas where mature tree stands occurred in the Study Area. A minimum of 10 plots were then established over 10 ha of a vegetation community in a selection of suitable ecosites; for sites >10 ha, an extra plot was added for each additional ha in size, to a maximum of 35 plots. Each plot was 12.6 (0.05 ha) in radius. Trees with the habitat features with the potential to support bat maternity colonies (i.e. trees with a decay class of 1-3 and a dbh (diameter at breast height) of >25 cm, with one or more cavities 10 m or higher from the ground) were recorded and tallied.

Areas of anthropogenic development may also provide suitable bat maternity roosting habitat, however, no buildings are proposed for removal at this time and no targeted surveys of anthropogenic habitat were conducted for this Project.

Bat Hibernacula Habitat Assessment

Two historic and abandoned mine shafts (Bat #4 and Bat#12) within 1 km of the Study Area identified through background review were visually surveyed to assess their suitability to support hibernacula. Characteristics such as openings in foundations, cracks and fissures where bat access would be feasible, and presence of water (e.g., flooding) were recorded. Additional features with the potential to support bat hibernacula that were encountered during the course of field investigations were recorded and assessed.

Bat Swarming Surveys

Bat swarming surveys were conducted at Bat #4 subsequent to the bat hibernacula habitat assessment. Surveys occurred in the month of September and started half an hour before sunset (generally from approximately 20:00) and continued until dark. Each survey was targeted for suitable weather conditions, which are considered minimum temperature of 10°C, low winds and no-light precipitation.

The surveyor stood within 10 metres of the identified opening and visually monitored the feature for observations of bats. The surveyor was also equipped with a hand-held audio-recorder (Wildlife Acoustics Echo Meter Touch bat detector) to identify bat activity. All records of bat species were recorded, along with the time and number of individuals observed.

3.2.2.9 Incidental Observation

Other wildlife observations made during other targeted survey efforts were recorded, including direct (visual, audible, etc.) and indirect (scat, browse, tracks, etc.) observations.

3.2.3 Wildlife Habitat

Because the Study Area for the pipeline overlaps, in part, with the Study Area for the Hardrock Mine, the methods and the wildlife habitats identified in the Hardrock Project Final EA/EIS are applied here.

Wildlife habitats were identified by comparing field data collected on wildlife habitat features and species presence to mapped vegetation communities (ecosite types). Where habitat types are identified and described in the Significant Wildlife Habitat Technical Guide (MNR 2000), and the Significant Wildlife Habitat Criteria Schedules for Ecoregion 3E (MNRF 2015a), consideration of the vegetation community criteria identified within these documents was used to identify wildlife habitat availability within the Study Area. Field data were reviewed in consideration of the guidance provided in the Ecoregion Criteria for evaluating significance to further determine which habitats would be considered as SWH for the purposes of this assessment. A conservative approach was taken in the identification and evaluation of wildlife habitats to identify both potential and confirmed habitats as detailed in Table 3-4.

4.0 EXISTING ECOLOGICAL CONDITIONS

4.1 BACKGROUND DATA

4.1.1 Physiography

The Study Area is in Ecoregion 3W (Lake Nipigon Ecoregion) of northern Ontario (Crins et al. 2009). The area is underlain by Precambrian Shield. Large greenstone belts are interspersed throughout granitic bedrock overlain by substantial areas of glaciofluvial soils. Soils are predominantly dystric brunisols with some podzols occurring in areas of increased soil moisture. Forest cover is a mix of deciduous and coniferous trees with jack pine (Pinus banksiana) and trembling aspen (Populus tremuloides) dominant in upland areas and black spruce (Picea mariana) and tamarack (Larix laricina) dominating extensive conifer wetlands. Birch (Betula papyrifera), white spruce (P. glauca) and balsam fir (Abies balsamea) occur as minor components mixed in with more dominant jack pine, aspen, and black spruce.

4.1.2 Designated Natural Areas

Natural heritage information gathered during the literature review was used to identify known natural heritage features within the Study Area. No designated natural features (e.g., provincial parks, areas of natural and scientific interest) were identified within the Study Area.

Known and potential natural areas within the Study Area include wetlands and woodlands, small lakes, and watercourses and are shown on **Figure A1, Appendix A**.

4.1.3 Species at Risk

Background review identified six SAR with the potential to occur in the Study Area. These species, their status and the records source information are shown in Table 4.1.

Table 4.1 Terrestrial SAR with Potential to Occur in the Study Area

Common Name	Scientific Name	SRANK	Provincial Status (COSSARO)	Federal Status (COSEWIC)	Source
BIRDS					
American White Pelican	*Pelecanus erythrorhynchos*	S2B	THR	---	Stantec (2015)
Bank Swallow	*Riparia riparia*	S4B	THR	THR	Stantec (2015)
Barn Swallow	*Hirundo rustica*	S4B	THR	THR	Stantec (2015)
Eastern Whip-poor-will	*Caprimulgus vociferus*	S4B	THR	THR	Stantec (2015)

Table 4.1 Terrestrial SAR with Potential to Occur in the Study Area

Common Name	Scientific Name	SRANK	Provincial Status (COSSARO)	Federal Status (COSEWIC)	Source
MAMMALS					
Little Brown Myotis	*Myotis lucifugus*	S5	END	END	Stantec (2015)
Northern Myotis	*Myotis septentrionalis*	S3?	END	END	Stantec (2015)
Woodland Caribou	*Rangifer tarandus*	S4	THR	THR	MNRF

OBBA – Ontario Breeding Bird Atlas

S#B – Breeding status rank

4.1.4 Species of Conservation Concern

Background review identified 4 SOCC with the potential to occur in the Study Area. These species, their status and the records source information are shown in Table 4.2.

Table 4.2 Terrestrial SOCC with Potential to Occur in the Study Area

Common Name	Scientific Name	SRANK	Provincial Status (COSSARO)	Federal Status (COSEWIC)	Source
INSECTS					
Taiga Alpine	*Erebia mancinus*	S3	---	---	NHIC
BIRDS					
Bald Eagle	*Haliaeetus leucocephalus*	S4B	SC	---	NHIC
Black Tern	*Chlidonias niger*	S3B	SC	---	NHIC
Canada Warbler	*Wilsonia canadensis*	S4B	SC	THR	OBBA
Common Nighthawk	*Chordeiles minor*	S4B	SC	THR	OBBA
Eastern Wood-Pewee	*Contopus virens*	S4B	SC	SC	OBBA
Olive-sided Flycatcher	*Contopus cooperi*	S4B	SC	THR	OBBA
Yellow Rail	*Coturnicops noveboracensis*	S4B	SC	SC	OBBA

OBBA – Ontario Breeding Bird Atlas

S#B- Breeding status rank

4.2 FIELD INVESTIGATIONS

Results of all field investigations are presented below. Survey dates, times, surveyors, and weather details for targeted field surveys are provided in **Appendix C**.

4.2.1 Vegetation

4.2.1.1 Ecosites

Eight (8) ecosite communities were identified within the Study Area and are shown on **Figure A-2, Appendix A** along with vegetation plot survey locations.

Vegetation ecosite mapping surveys confirmed that the Study Area is comprised primarily of wetlands, woodlands, and anthropogenic or built-up areas (i.e., the Town of Geraldton, existing roads, existing Union Gas valve site, and other buildings).

Ecosite communities included upland disturbed communities and conifer and deciduous dominated forest communities, while wetland communities consist of conifer swamps and thicket swamps (Table 4.3). No rare ecosites occur in the study area.

Table 4.3 Ecosite Communities Intersection Pipeline Route

Habitat Type	Ecosystem Type	Ecosite	Length		Ecosite Description
			m	%	
Disturbed	Disturbed	B197 - Disturbed - Coarse Clean Fill	924	8.4	Vegetation community a result of industry and anthropogenic disturbances. Practices include previous mining activities and logging practices. Community in early successional stage, with trembling aspen, spruce and pine species throughout. Areas of pooling sporadic throughout.
		B198 - Disturbed - Compact Gravelled Surface	6110	55.7	
Disturbed Subtotal			*7035*	*64.1*	
Vegetated Upland	Forest	B035 - Dry, Sandy: Pine - Black Spruce Conifer	183	1.7	Jack pine and black spruce dominated canopy with open understory. Groundcover feathermoss and reindeer lichen dominated with ericaceous shrubs. Minimal broadleaf content. Soils sandy to coarse and dry. Often on aeolian deposits with open canopy.
		B040 - Dry, Sandy: Aspen - Birch Hardwood	428	3.9	Trembling aspen and paper birch dominated with low shrub understory dominated by bush honeysuckle and graminoids. Ground cover mostly leaf litter. Soils sandy to coarse with some silt content.
		B049 - Dry to Fresh, Coarse: Jack Pine - Black Spruce	589	5.4	Jack pine and black spruce dominated the canopy with white birch, balsam fir, red pine, eastern white pine and trembling aspen associates. Shrub cover was moderately sparse, with ericaceous shrubs typically abundant. Sparse herbaceous layer. feathermoss. Sandy to coarse loamy soils - dry to fresh.

Table 4.3 Ecosite Communities Intersection Pipeline Route

Habitat Type	Ecosystem Type	Ecosite	Length		Ecosite Description
			m	%	
		B050 - Dry to Fresh, Coarse: Pine - Black Spruce Conifer	438	4.0	Canopy dominated by jack pine and black spruce; Frequent observations of white birch, balsam fir and red maple. Shrub cover sparse, with ericaceous shrubs present. Sparse herbaceous layer. Ground-cover mostly feathermoss with conifer litter. Sandy to coarse loamy soils.
		B052 - Dry to Fresh, Coarse: Aspen - Birch Hardwood	119	1.1	Canopy consisted of spruce species and balsam fir. White spruce typically present along with black spruce. Occurrences of white birch, red maple and trembling aspen throughout. Shrub and herbaceous layer moderately sparse. Ground-cover mostly conifer litter with variable stones. Sandy to coarse loamy soils - dry to fresh.
		B055 - Dry to Fresh, Coarse: Aspen - Birch Hardwood	471	4.3	Aspen and birch dominated canopy along. Balsam fir and spruce often in understory. Shrub and herbaceous layer moderately abundant. Ground-cover mostly broadleaf litter. Sandy to coarse loamy soils.
	Subtotal Forest		*2228*	*20.3*	
	Meadow	B030 - Dry, Sandy: Meadow	191	1.7	Dominated by herbaceous cover, with some scattered small trees and shrubs. Low species diversity. Substrate supports rapid drainage.
		B110 - Moist, Fine: Meadow	30	0.3	Dominated by herbaceous cover, with some scattered small trees and shrubs. Low species diversity. Fresh to moist substrate, rich in nutrients and supports moisture holding capacity.
	Subtotal Meadow		*221*	*2.0*	
Vegetated Upland Subtotal			*2449*	*22.3*	
Wetland	Fen	B136 - Sparse Treed Fen	32	0.3	Black spruce, tamarack dominated canopy. Shrub and herbaceous layer moderately abundant, with ericaceous shrubs abundant. Ground-cover mostly sphagnum moss. Mineral or organic soils mostly deep and wet.
	Subtotal Fen		*32*	*0.3*	
	Swamp	B128 - Organic Intermediate Conifer Swamp	1399	12.7	Canopy dominated by black spruce, tamarack, balsam fir, eastern white pine and red maple. Associates include

Table 4.3 Ecosite Communities Intersection Pipeline Route

Habitat Type	Ecosystem Type	Ecosite	Length		Ecosite Description
			m	%	
					speckled alder and other intermediate swamp indicators. Shrubs moderately sparse with typically abundant ericaceous shrubs. Little herbaceous layer. Ground surface mostly conifer litter, broadleaf litter and mosses. Deep, wet, organic soils.
		B129 - Organic Rich Conifer Swamp	59	0.5	Eastern white cedar dominated with balsam fir, black spruce, and white birch. High vegetation cover in the shrub and herbaceous layers. Ground-cover includes conifer litter, broadleaf litter and mosses. Deep, wet organic soils.
	Subtotal Swamp		*1458*	*13.3*	
Wetland Subtotal			*1489*	*13.6*	
Grand Total			10973	100	

No plant SAR were observed during field investigations. All native species have a rank of S5 or S4, and are common and secure or apparently secure in Ontario.

4.2.2 Wildlife

A full list of all wildlife observed in the Study Area during field investigations is provided in **Appendix B**.

4.2.2.1 Calling Anurans

Survey stations were established at wetland and other surface water features that have the potential to support breeding amphibians. Habitat characteristics were collected during surveys. Surveys involved nighttime call counts to identify species present and characterize abundance. Survey station locations are provided on **Figure A-4, Appendix A**.

Four species of calling anurans were recorded in the Study Area: Spring Peeper, Boreal Chorus Frog, Mink Frog and American Toad. Spring peeper was the dominant species within the Study Area. Opportunistic sightings of these amphibian species were made during botanical and breeding bird surveys. These results are considered further in **Section 3.2.3**.

4.2.2.2 Salamander Breeding

Survey stations were established at wetland and other surface water features that have the potential to support salamander breeding. Survey station locations are provided on **Figure A-4, Appendix A**.

No salamander egg masses or venal pooling suitable for salamander breeding were observed during field surveys in the Study Area.

4.2.2.3 Basking Turtles

Surveys for turtles and turtle habitat features were conducted incidentally throughout the course of all field investigations. One turtle species was observed during field investigations: Western Painted Turtle. This species was observed basking in both Annette Lake and Kenogamisis Lake. No turtle nests were observed.

4.2.2.4 Snake Species

Surveys for snakes and snake habitat features were conducted incidentally throughout the course of all field investigations. No snakes or candidate snake hibernacula were identified in the Study Area.

4.2.2.5 Breeding Birds

Seventy (70) bird species were recorded in the Study Area during breeding bird surveys (**Appendix B**). Survey station locations are provided on **Figure A-6, Appendix A**. All species recorded breeding are ranked S5 (common and secure in the province) or S4 (apparently secure in the province; uncommon but not rare). No Common Nighthawk, Eastern Whip-poor-will or other crepuscular/nocturnal breeding birds were recorded during their respective field surveys.

One SAR bird species was recorded in the Study Area: Barn Swallow. One active and one inactive Barn Swallow nest were identified inside the Manitoulin Shed, and one adult Barn Swallow was observed flying in and out of this structure. Breeding habitat for Barn Swallow is shown on **Figure A7, Appendix A**.

One SOCC bird species was recorded breeding in the Study Area: Canada Warbler. A singing male was recorded during breeding bird surveys, in ecosite type B055 (Dry to Fresh, Coarse Loamy: Aspen-Birch Hardwood). The location of the Canada Warbler and the confirmed breeding habitat are shown on **Figure A7, Appendix A**. All forest and swamp ecosites are conservatively considered potential habitat for Canada warbler and are shown on **Figure A7, Appendix A**.

4.2.2.6 Migratory Water Birds

Nine (9) waterbird species were observed during the course of fall waterfowl migration surveys: Canada Goose (*Branta canadensis*), American Black Duck (*Anas rubripes*), Mallard (*Anas platyrhynchos*), Green-winged Teal (*Anas carolinensis*), Blue-winged Teal (*Anas discors*), Common Loon (*Gavia immer*), Pied-billed Grebe (*Podilymbus podiceps*) and Sandhill Crane (*Grus Canadensis*). The highest concentrations occurred in Barton Bay. Survey station locations are provided on **Figure A-6, Appendix A**.

American White Pelicans were observed during field investigations within Barton Bay East; however, none were observed within the Study Area. Kenogamisis Lake (including Barton Bay West and East) has been considered American White Pelican stopover and foraging habitat and is shown on **Figure A7, Appendix A**.

4.2.2.7 Bats

Three bat species were recorded during field investigations within the Study Area: Little Brown Myotis, Big Brown Bat and Hoary Bat.

Maternity roost habitat – Limited mature forest was present within the Study Area and no suitable ecosites were present to conduct plot density surveys; therefore, suitable bat maternity roosting habitat was not identified; however, a conservative approach to consider all mature forest or swamp forest ecosites as possible maternity roost habitat for *myotis* bats was applied.

Bat overwintering/hibernacula Suitability Assessment – Two abandoned mine features (Bat ID#4 and Bat ID#12) were identified through background review within 1km of the Study Area and are shown on **Figure A9, Appendix A**. No additional candidate hibernacula features were identified during Study Area field investigations.

At Bat ID#12 the shaft was buried/filled in and as a result Bat #12 was not considered suitable for bat overwintering.

Bat ID#4 contained two caps; cap 1 was likely not suitable to support bat overwintering due to the small opening into vertical entry point, vegetation on ground around opening and evidence of flooding; however, as an added measure swarming/exit surveys were undertaken in the fall 2016 to confirm bat overwintering. Cap 2 was not suitable for bat overwintering due to lack of bat access.

Bat Swarming Surveys

No swarming activity was observed at Bat ID#4 during the fall surveys; however, acoustic monitors recorded 7 Little Brown Myotis calls (3 on September 15, 4 on September 16, 2016) overhead. No bats were observed entering or exiting Bat#4.

4.2.2.8 Woodland Caribou

Woodland Caribou was not recorded during site investigations; however, the preferred route is located primarily within the Lake Superior Uplands Linkage population range for Woodland Caribou, a discontinuous distribution area between continuous populations located along the Lake Superior shoreline. Approximately 300 m at the northern end of the preferred route occurs within the Nipigon Range - continuous distribution. Existing conditions for Woodland Caribou are shown on **Figure A10, Appendix A**.

The Study does not contain any high use areas such as nursery areas, winter use areas or travel corridors for caribou.

4.2.2.9 Insects

Incidental butterfly observations were recorded; however, no Taiga Alpine were observed in the Study Area. The species is known to occur within the regional area (Stantec 2017) and for the purposes of this report is suitable ecosites are conservatively considered to provide potential habitat for Taiga Alpine. Potential habitat for Taiga Alpine is shown on **Figure A10, Appendix A**.

4.2.3 Wildlife Habitat

Consideration of the Significant Wildlife Habitat Technical Guide (MNR 2000) and the Significant Wildlife Habitat Criteria Schedules for Ecoregion 3W (MNRF 2017) was used to identify wildlife habitats in the Study Area. The results of these investigations are presented in Table 4.4.

Table 4.4 Study Area Wildlife Habitat Assessment

Wildlife Habitat Type*	General Criteria	Study Area Conditions
SEASONAL CONCENTRATION		
Late Winter Moose Cover	Dense conifer stands with >60% forest cover, often in upland areas.	Late winter moose cover habitat was conservatively considered to be present in the absence of confirmed use based on the known presence of moose in the area and the presence of the ecosites to support this habitat type Suitable ecosites (i.e. as per MNRF 2015) were considered potential late moose winter cover habitat.
Waterfowl Stopover and Staging Areas	Seasonally flooded fields or natural aquatic habitats with waterfowl concentrations.	Surveys for migrating waterfowl (**3.2.2.6**) indicate that waterfowl are not staging in significant concentrations within the Study Area.
Bat Hibernacula	Caves, mine shafts, foundations, karsts	Bat hibernacula surveys (**3.2.2.7**) did not reveal the presence of bats entering or exiting existing features. Confirmed bat hibernacula were not identified within the Study Area.
Bat Maternity Colonies	Mature deciduous or mixed forest.	Although the presence of bat maternity roost habitat was not confirmed through field surveys, potentially suitable habitat (natural and anthropogenic) has conservatively been identified. Ecosites that are identified in the *Significant Wildlife Habitat Criteria Schedules for Ecoregion 3W* (MNRF 2017) as candidate ecosites for natural bat maternity roost habitat and that are present are considered potential wildlife habitat for bat maternity roosts. In addition, buildings are considered potential anthropogenic maternity roost habitat. Ecosites B035, 40, 49, 50, 52, 55, 65, 128, and 129 in the Study Area have potential to support bat maternity colonies.
Turtle Wintering Areas	Permanent water bodies that do not freeze solid in winter.	Observations of Western Painted Turtle (**3.2.2.3**) occurred in Kenogamisis and Annette Lakes. These lakes were identified as confirmed turtle wintering areas. A conservative approach was taken to identify

Table 4.4 Study Area Wildlife Habitat Assessment

Wildlife Habitat Type*	General Criteria	Study Area Conditions
		similar waterbodies as possible habitat; open water ecosites that provide water deep enough not to freeze and provide soft mud substrates were considered potential turtle wintering areas. All Lakes along the pipeline route have potential to act as turtle wintering areas.
Reptile Hibernacula	Rocky features which allow movements below the frost line.	No snakes were observed during Study Area field investigations (**3.2.2.4**). No candidate reptile hibernacula were identified.
Colonially - Nesting Bird Breeding Habitat (bank/ cliff, tree/shrub and ground)	Several indicator species, if found breeding in colonies or significant concentrations	No observations of bird colonies were made in the Study Area during field investigations.
RARE VEGETATION COMMUNITIES		
Cliffs and Talus Slopes, Bog, Rare Treed Type, Rock Barren, Sand Dunes, Tallgrass Prairie, Hardwood Swamps	Indicator ecosite communities.	Cliff or talus slope, rock barren, sand dune or hardwood swamp ecosites were not identified during Study Area field investigations (**3.2.1.1**).
SPECIALIZED WILDLIFE HABITAT		
Waterfowl Nesting Area	Indicator species breeding in significant concentrations within suitable habitats.	No waterfowl nesting was confirmed during field surveys. Suitable ecosites for nesting waterfowl were identified during field investigations and have been conservatively considered possible habitat.
Bald Eagle, Osprey and Raptor Nesting, Foraging or Perching Habitat	Nests of woodland indicator species or significant habitat used by Bald Eagle or Osprey.	No raptor nests or key features were identified during Study Area field investigations; Treed ecosite types (including deciduous, mixed, and coniferous forests as well as treed swamps) provide suitable nesting habitat for woodland raptors, including bald eagle (MNRF 2017). For the purposes of this assessment, all forest and treed swamp ecosites are considered potential raptor nesting habitat.
Turtle Nesting Areas	Natural areas providing sand or gravel in proximity to water.	Turtle nesting areas are presumed present in the vicinity of Kenogamisis Lake and Annette Lake through observations of Western Painted Turtle in these two lakes. Many Ontario turtles nest in roadsides or other anthropogenic locations which are not considered significant wildlife habitat. No turtle nests were observed during Study Area field investigations.
Seeps or Springs	Locations where groundwater comes to the surface.	No seeps or springs were located during Study Area field investigations.
Aquatic Feeding Habitat	Assessment through the Selected Wildlife and Habitat Features: Inventory Manual; MNRF maps on crown land.	Aquatic feeding habitats were not identified in the Study Area (LIO, 2017).

Table 4.4 Study Area Wildlife Habitat Assessment

Wildlife Habitat Type*	General Criteria	Study Area Conditions
Mineral Lick	Upwelling groundwater with associated minerals.	No upwelling groundwater locations were located during Study Area field investigations.
Predator Denning or Rendezvous Sites	Dens of indicator species and wolf rendezvous sites.	No den sites or wolf rendezvous sites were identified during Study Area field investigations.
Amphibian Breeding Habitat	Suitable water in wetlands or woodlands where indicator species are present.	All ecosite polygons where presence of at least one species of amphibian was recorded through field surveys are conservatively considered confirmed SWH for amphibian breeding. A conservative approach was taken to identify all ecosites meeting the criteria for candidate significant wildlife habitat for amphibian breeding in the Ecoregion Criteria (MNRF 2015) as potential habitat.
Mast Producing Areas	Areas with concentrations of mast producing species.	No ecosites with concentrations of mast producing species were identified during Study Area field investigations.
Sharp-tailed Grouse Leks	Lek grounds used by Sharp-tailed Grouse.	No Sharp-tailed Grouse were observed during Study Area field investigations.
ANIMAL MOVEMENT CORRIDORS		
Amphibian, Cervid and Furbearer Movement Corridors	Elongated vegetated areas used by amphibians, cervids or furbearers.	Amphibians, cervids or furbearers are presumed to be using regional movement corridors within the Study Area; however, no significant locations or vegetated corridors were identified during field investigations.

* Habitat for Species of Conservation Concern is addressed in Section 3.2.2

5.0 SUMMARY

Natural features, SAR, SOCC and significant wildlife habitats are considered present the Study Area. Unevaluated wetlands occur within the Study Area, the significance of which have not been assessed in accordance with the Ontario Wetland Evaluation System. Four protected SAR or their habitat were recorded within the Study Area: Barn Swallow, American White Pelican, Little Brown Myotis, and Woodland Caribou. Two SOCC were recorded within the Study Area: Canada Warbler and, Taiga Alpine. Six additional significant wildlife habitat types were identified within the Study Area during field investigations as either potential or confirmed features. Natural features, SAR, SOCC and wildlife habitats are summarized in Table 5.1, including interactions with the working easement of the preferred route and a reference to figures showing the extent of each habitat type.

Table 5.1 Summary of Study Area Existing Conditions

Natural Feature	Habitat Mapping Figure reference (Appendix A)
Wetlands	Figure A-1
Barn Swallow breeding habitat	Figure A-7
American White Pelican (foraging and staging habitat)	Figure A-7
Potential maternity roost habitat (natural and anthropogenic) for Little Brown Myotis	Figure A-9
Woodland Caribou Range	Figure A-10
Confirmed and potential Canada Warbler habitat	Figure A-6
Potential Taiga Alpine habitat	Figure A-10
Potential Late Winter Moose Cover	Figure A-10
Potential Turtle Wintering Areas	Figure A-5
Potential Waterfowl Nesting Area	Figure A-8
Potential Raptor Nesting Habitat	Figure A-8
Potential Turtle Nesting Areas	Figure A-5
Confirmed and potential Amphibian Breeding Habitat	Figure A-5

* Endangered or Threatened Species under the ESA

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APPENDIX A
Figures

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Highway 584
Marie Lake
Annette Lake
Dionne Lake
Dafoe Lake
Ashton Lake
Cecile Lake
Yvonne Lake
Emilie Lake
Quintuplet Lake
Pipeline Road
Hogarth Avenue West
Geraldton
1St Street West
1St Street East
Main Street
Kenogamisis Lake (Outlet Basin)
Barton Bay (West)
Barton Bay (East)
Michael Power Blvd.
GCP-1
GCP-3
GCP-2
Mosher Lake
Glory Hole
Old Arena Road
Trans-Canada Highway 11
Hardrock Road
Kenogamisis Lake (Central Basin)
Pond A
Lahtis Road
SWP3
SWP4
SWP1
SWP2
Marron Lake
Kenogamisis Lak

0 0.75 1.5 Km
1:30,000

August 2021
160961408

Notes

1. Coordinate System: NAD 1983 UTM Zone 16N
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Legend

- Study Area (120 m)
- Existing Enbridge Gas Station
- Trans Canada Pipeline
- Preferred Route

Existing Features

- Contour Line (10 m intervals)
- Highway
- Major Road
- Local Road
- Railway
- Watercourse- Permanent
- Watercourse- Intermittent
- Provincial Park
- Unevaluated Wetland (MNRF)
- Waterbody
- Wooded Area

Client/Project

Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix A

Figure No.

A1

Title

Natural Features - Land Information Ontario and MNRF Mapping



\\Ca0220-ppfss01\work_group\01609\active\160960975\drawing\MXD\APC\ReportFigures\Environmental_Report\AppendixC\160961408_Fig_A2_EcositeMapbook_20210801.mxd
Revised: 2021-08-01 By: CLee

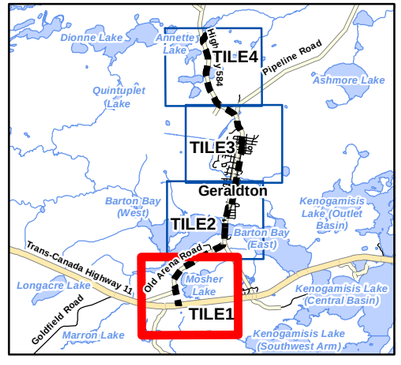
Stantec

Legend

- Study Area (120 m)
- Vegetation Survey Plot
- Preferred Route
- Ecosite Boundary

Ecosite- Description

- B034; Dry, Sandy: Jack Pine - Black Spruce Dominated
- B035; Dry, Sandy: Pine - Black Spruce Conifer
- B049; Dry to Fresh, Coarse: Jack Pine - Black Spruce Dominated
- B050; Dry to Fresh, Coarse: Pine - Black Spruce Conifer
- B052; Dry to Fresh, Coarse: Spruce - Fir Conifer
- B055; Dry to Fresh, Coarse: Aspen - Birch Hardwood
- B065; Moist, Coarse: Pine - Black Spruce Conifer
- B070; Moist, Coarse: Aspen - Birch Hardwood
- B104; Fresh, Silty to Fine Loamy: Aspen - Birch Hardwood
- B114; Moist, Fine: Pine - Black Spruce Conifer
- B127; Organic Poor Conifer Swamp
- B128; Organic Intermediate Conifer Swamp
- B129; Organic Rich Conifer Swamp
- B134; Mineral Thicket Swamp
- B135; Organic Thicket Swamp
- B136; Sparse Treed Fen
- B142; Mineral Meadow Marsh
- B144; Organic Meadow Marsh
- B146; Open Shore Fen
- B149; Organic Shallow Marsh
- B198; Disturbed - Compact Gravelled Surface
- B223; Mineral Intermediate Conifer Swamp



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Client/Project
Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix A

Figure No.
A2

Title
Ecosite Classification and Vegetation Communities
Tile 1



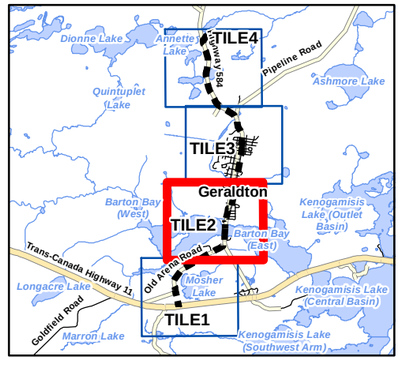
Stantec

Legend

- Study Area (120 m)
- Vegetation Survey Plot
- Preferred Route
- Ecosite Boundary

Ecosite- Description

B012; Very Shallow, Dry to Fresh: Pine - Black Spruce Conifer
B049; Dry to Fresh, Coarse: Jack Pine - Black Spruce Dominated
B050; Dry to Fresh, Coarse: Pine - Black Spruce Conifer
B052; Dry to Fresh, Coarse: Spruce - Fir Conifer
B055; Dry to Fresh, Coarse: Aspen - Birch Hardwood
B065; Moist, Coarse: Pine - Black Spruce Conifer
B070; Moist, Coarse: Aspen - Birch Hardwood
B110; Moist, Fine: Meadow
B127; Organic Poor Conifer Swamp
B128; Organic Intermediate Conifer Swamp
B129; Organic Rich Conifer Swamp
B134; Mineral Thicket Swamp
B136; Sparse Treed Fen
B140; Open Moderately Rich Fen
B142; Mineral Meadow Marsh
B144; Organic Meadow Marsh
B197; Disturbed - Coarse Clean Fill
B198; Disturbed - Compact Gravelled Surface



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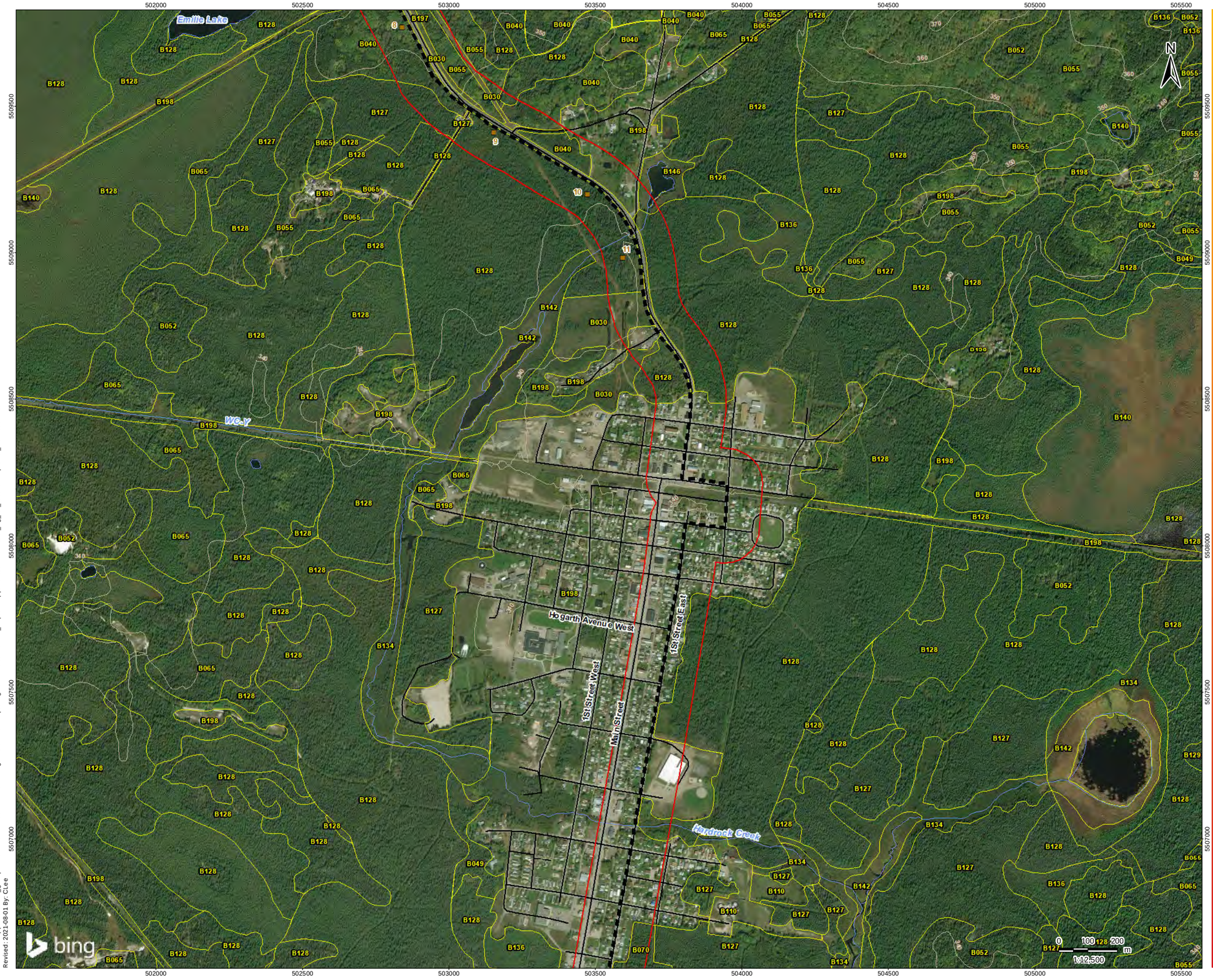
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Client/Project
Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix A

Figure No.
A2

Title
Ecosite Classification and Vegetation Communities
Tile 2

\\Ca0220-ppfss01\work_group\01609\active\60960975\drawing\MXD\APC\ReportFigures\Environmental_Report\AppendixC\160961408_Fig_A2_EcositeMapbook_20210801.mxd
Revised: 2021-08-01 By: CLee



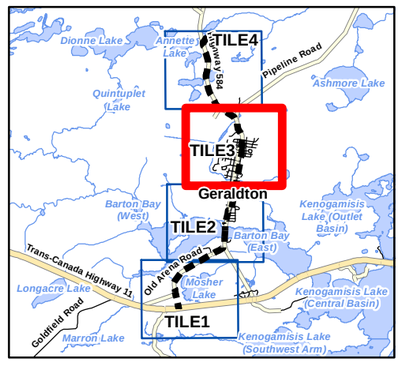
Stantec

Legend

- Study Area (120 m)
- Vegetation Survey Plot
- Preferred Route
- Ecosite Boundary

Ecosite- Description

B030; Dry, Sandy: Meadow
B040; Dry, Sandy: Aspen - Birch Hardwood
B049; Dry to Fresh, Coarse: Jack Pine - Black Spruce Dominated
B052; Dry to Fresh, Coarse: Spruce - Fir Conifer
B055; Dry to Fresh, Coarse: Aspen - Birch Hardwood
B065; Moist, Coarse: Pine - Black Spruce Conifer
B070; Moist, Coarse: Aspen - Birch Hardwood
B110; Moist, Fine: Meadow
B127; Organic Poor Conifer Swamp
B128; Organic Intermediate Conifer Swamp
B129; Organic Rich Conifer Swamp
B134; Mineral Thicket Swamp
B136; Sparse Treed Fen
B140; Open Moderately Rich Fen
B142; Mineral Meadow Marsh
B146; Open Shore Fen
B197; Disturbed - Coarse Clean Fill
B198; Disturbed - Compact Gravelled Surface



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Greenstone Pipeline Project
Appendix A

Figure No.
A2

Title
Ecosite Classification and Vegetation Communities
Tile 3

\\Ca0220-ppfss01\work_group\01609\active\160960975\drawing\MXD\APC\ReportFigures\Environmental_Report\AppendixC\160961408_Fig_A2_EcositeMapbook_20210801.mxd
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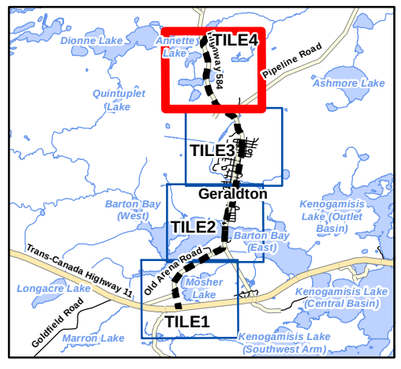
Stantec

Legend

- Study Area (120 m)
- Existing Enbridge Gas Station
- Vegetation Survey Plot
- Trans Canada Pipeline
- Preferred Route
- Ecosite Boundary

Ecosite- Description

- B030; Dry, Sandy: Meadow
- B034; Dry, Sandy: Jack Pine - Black Spruce Dominated
- B035; Dry, Sandy: Pine - Black Spruce Conifer
- B040; Dry, Sandy: Aspen - Birch Hardwood
- B049; Dry to Fresh, Coarse: Jack Pine - Black Spruce Dominated
- B052; Dry to Fresh, Coarse: Spruce - Fir Conifer
- B055; Dry to Fresh, Coarse: Aspen - Birch Hardwood
- B065; Moist, Coarse: Pine - Black Spruce Conifer
- B127; Organic Poor Conifer Swamp
- B128; Organic Intermediate Conifer Swamp
- B129; Organic Rich Conifer Swamp
- B134; Mineral Thicket Swamp
- B136; Sparse Treed Fen
- B139; Poor Fen
- B140; Open Moderately Rich Fen
- B142; Mineral Meadow Marsh
- B146; Open Shore Fen
- B197; Disturbed - Coarse Clean Fill
- B198; Disturbed - Compact Gravelled Surface



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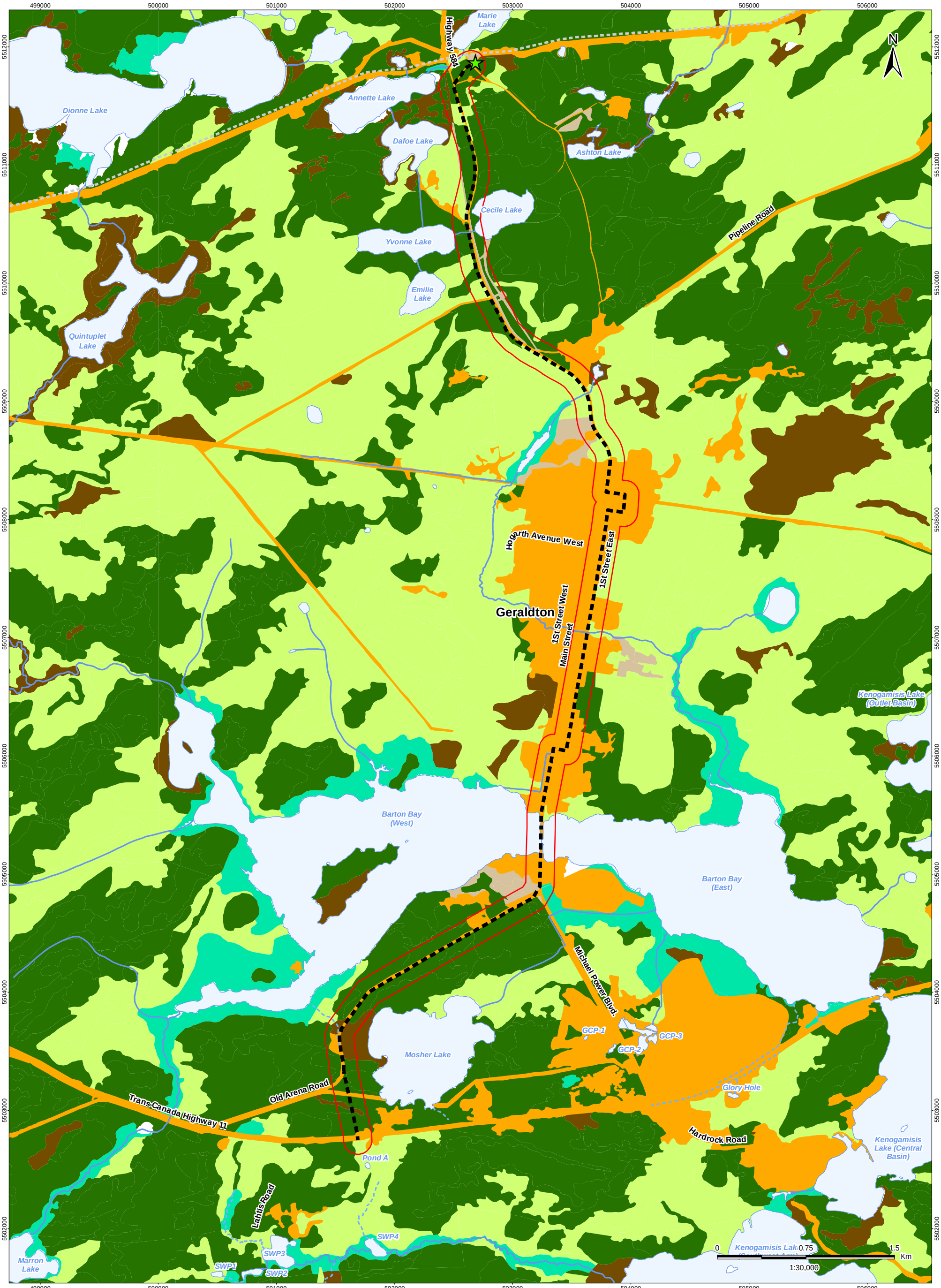
Client/Project
Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix A

Figure No.
A2

Title
Ecosite Classification and Vegetation Communities
Tile 4

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Revised: 2021-08-01 By: CLee

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Revised: 2021-08-01 By: Clee



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Legend

- Study Area (120 m)
- Existing Enbridge Gas Station
- Trans Canada Pipeline
- Preferred Route

Upland Vegetation Communities
- Forest
- Meadow

Wetland Vegetation Communities
- Fen
- Marsh
- Swamp

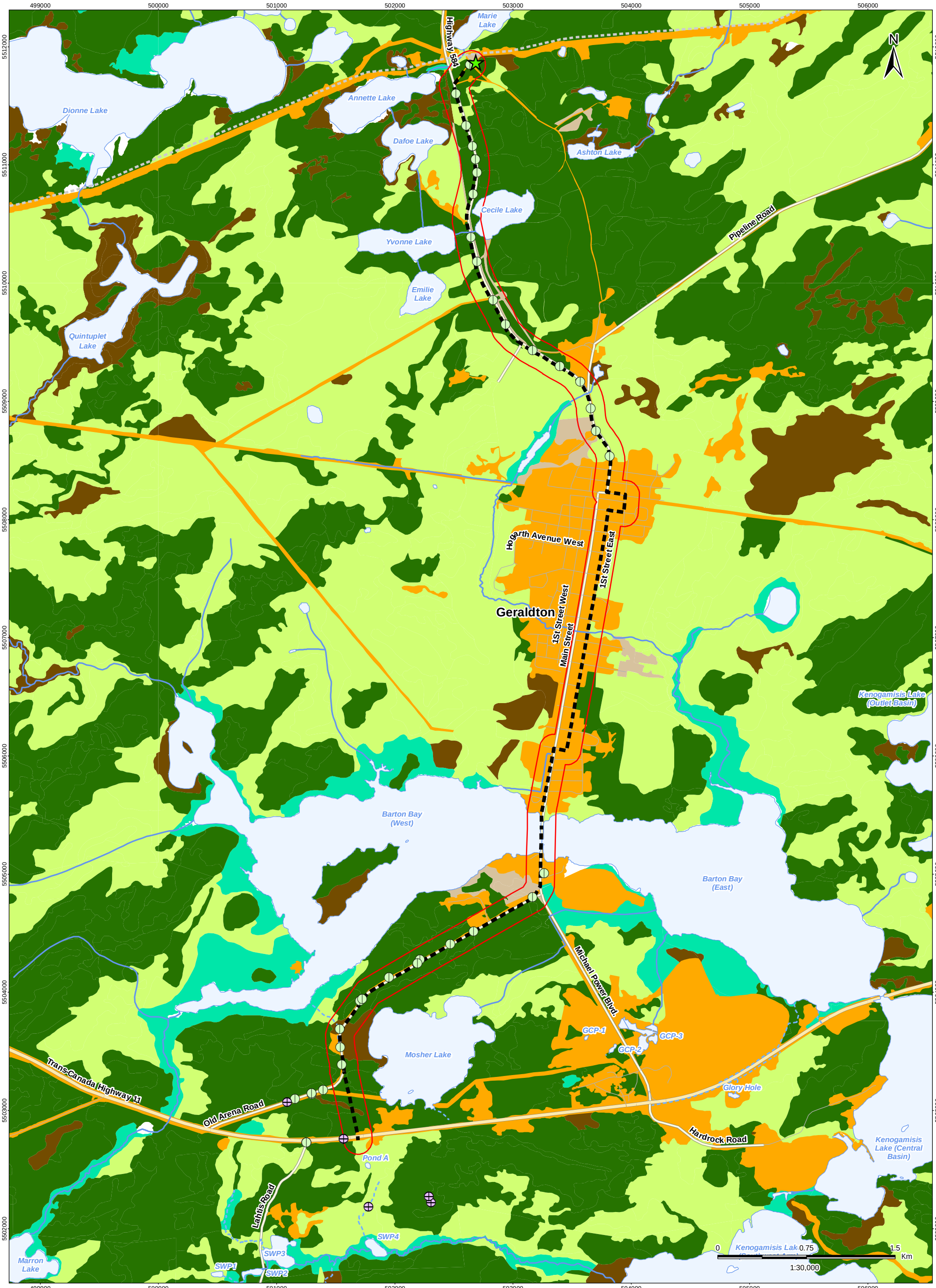
Disturbed Vegetation Communities
- Disturbed (Includes Built Up Areas)

Existing Features
- Contour Line (10m intervals)
- Highway
- Major Road
- Local Road
- Railway
- Watercourse- Permanent
- Watercourse- Intermittent
- Waterbody

Client/Project
Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix A

Figure No.
A3

Title
Land Classification



\\Ca0220-ppfss01\work_group\01609\active\60960975\drawing\MXD\Terrestrial\ReportFigures\Natural_Heritage_2021_Addendum\160961408_Fig_A4_HerptileSurveyStations_20210801.mxd
Revised: 2021-08-01 By: CLee

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Legend
- Study Area (120 m)
- Existing Enbridge Gas Station
- Amphibian Station
- Salamander Station
- Trans Canada Pipeline
- Preferred Route

Upland Vegetation Communities
- Forest
- Meadow

Wetland Vegetation Communities
- Fen
- Marsh
- Swamp

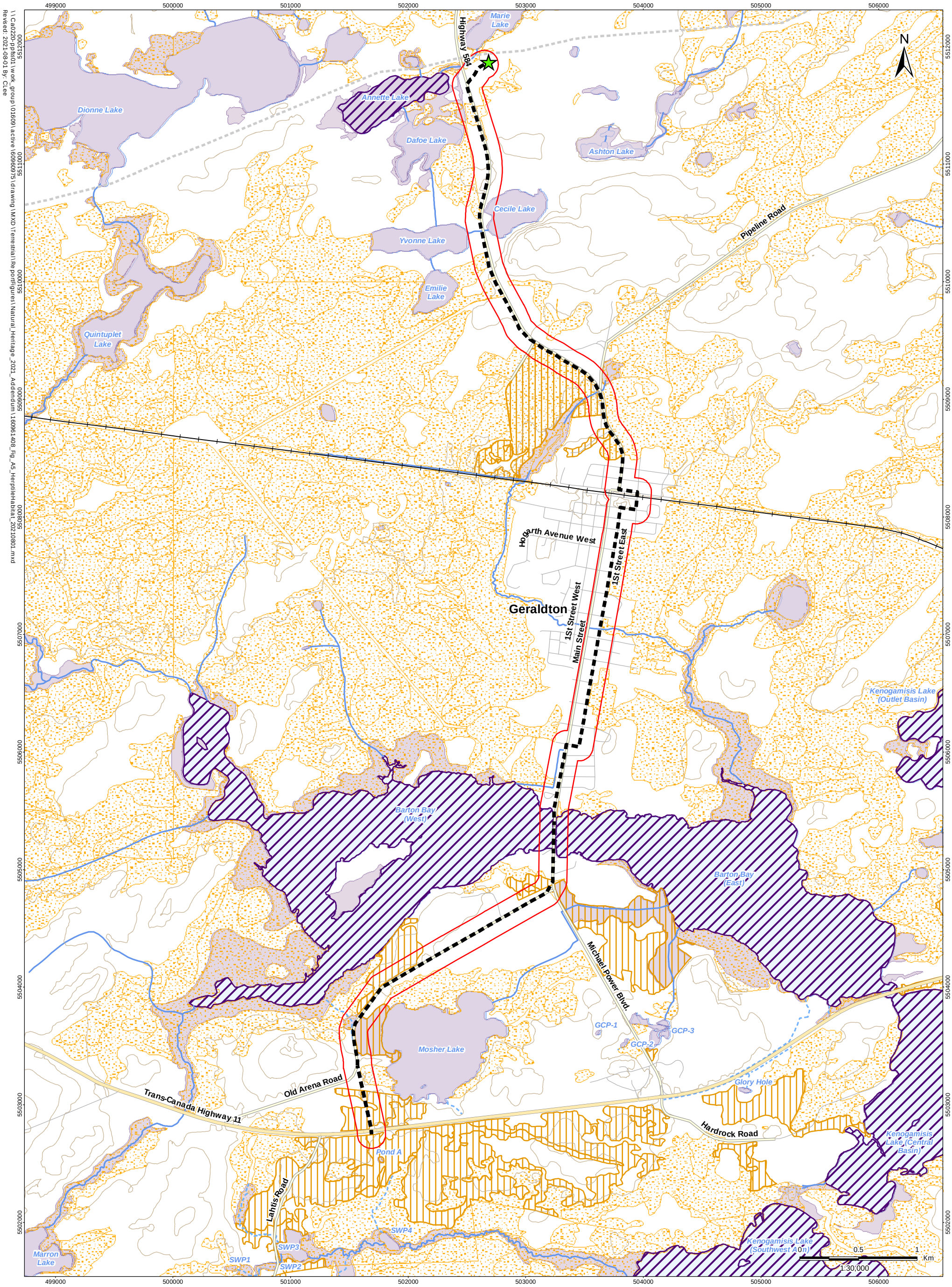
Disturbed Vegetation Communities
- Disturbed (Includes Built Up Areas)

Existing Features
- Contour Line (10m intervals)
- Highway
- Major Road
- Local Road
- Railway
- Watercourse-Permanent
- Watercourse-Intermittent
- Waterbody

Client/Project
Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix A

Figure No.
A4

Title
Herptile Survey Stations



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Notes
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Legend
- Study Area (120 m)
- Existing Enbridge Gas Station
- Trans Canada Pipeline
- Preferred Route
- Confirmed Amphibian Breeding Habitat
- Potential Amphibian Breeding Habitat
- Confirmed Turtle Overwintering Area
- Potential Turtle Overwintering Area

Existing Features
- Contour Line (10m intervals)
- Highway
- Major Road
- Local Road
- Railway
- Watercourse- Permanent
- Watercourse- Intermittent
- Waterbody

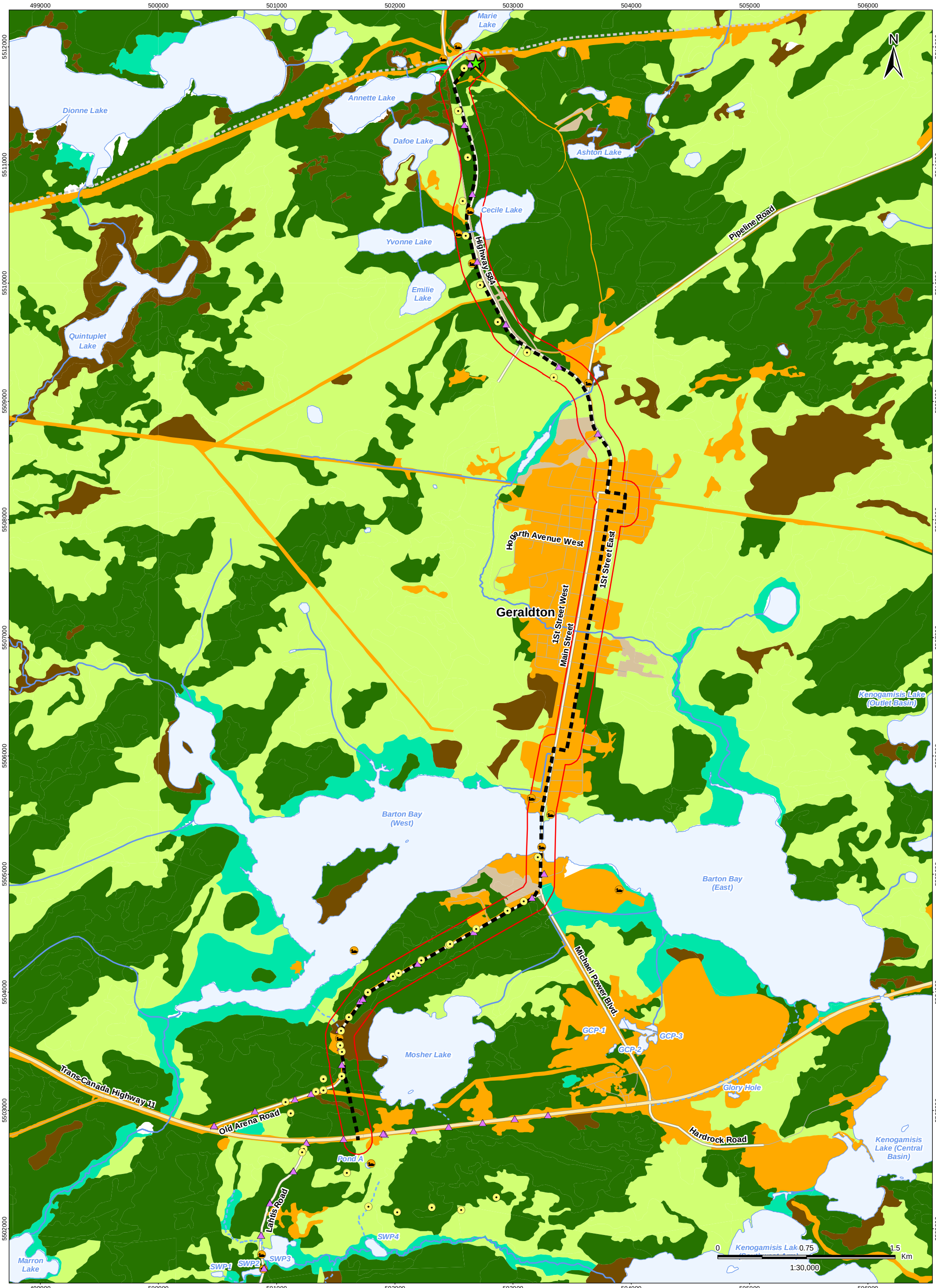
Client/Project
Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix A

Figure No.
A5

Title
Herptile Habitat

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Revised: 2021-08-01 By: CLee

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Revised: 2021-08-01 By: CLee



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Legend

- Study Area (120 m)
- Existing Enbridge Gas Station
- Breeding Bird Survey Station
- Crepuscular and Noctournal Bird Survey Station
- Waterfowl Survey Station
- Trans Canada Pipeline
- Preferred Route

Upland Vegetation Communities
- Forest
- Meadow

Wetland Vegetation Communities
- Fen
- Marsh
- Swamp

Disturbed Vegetation Communities
- Disturbed (Includes Built Up Areas)

Existing Features
- Contour Line (10m intervals)
- Highway
- Major Road
- Local Road
- Railway
- Watercourse- Permanent
- Watercourse- Intermittent
- Waterbody

Client/Project
Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix A

Figure No.
A6

Title
Bird Survey Stations

\\Ca0220-ppfs01\work_group\01609\active\60960975\drawing\MXD\terrestrial\ReportFigures\Natural_Heritage_2021_Addendum\160961408_Fig_A7_SAR_SOCC_Habitat_MNRF_20210801.mxd
Revised: 2021-08-01 By: Clee

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5512000 5511000 5510000 5509000 5508000 5507000 5506000 5505000 5504000 5503000 5502000

N

Marie Lake
Highway 584
Annette Lake
Dionne Lake
Dafoe Lake
Ashton Lake
Cecile Lake
Yvonne Lake
Pipeline Road
Emilie Lake
Quintuplet Lake
Hogarth Avenue West
1St Street East
Geraldton
1St Street West
Main Street
Kenogamisis Lake (Outlet Basin)
Barton Bay (West)
Barton Bay (East)
Michael Power Blvd.
GCP-1
GCP-3
GCP-2
Mosher Lake
Glory Hole
Old Arena Road
Trans-Canada Highway 11
Hardrock Road
Kenogamisis Lake (Central Basin)
Pond A
Lahtis Road
SWP3
SWP4
SWP1
SWP2
Marron Lake

0 0.75 1.5 km
1:30,000

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Notes
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Legend
- Study Area (120 m)
- Existing Enbridge Gas Station
- Trans Canada Pipeline
- Preferred Route
- Canada Warbler
- American White Pelican Staging/Foraging Location Observation
- Barn Swallow Confirmed Nesting Location
- American White Pelican Stopover and Foraging Habitat
- Confirmed Canada Warbler Habitat
- Potential Canada Warbler Habitat

Existing Features
- Contour Line (10 m intervals)
- Highway
- Major Road
- Local Road
- Railway
- Watercourse- Permanent
- Watercourse- Intermittent
- Waterbody

Client/Project
Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix A

Figure No.
A7

Title
Rare and At Risk Bird Species Observations and Associated Habitat

\\Ca0220-ppfss01\work_group\01609\active\60960975\drawing\MXD\Terrestrial\ReportFigures\Natural_Heritage_2021_Addendum\160961408_Fig_A8_SWH_MNRF_20210801.mxd
Revised: 2021-08-01 By: CLee

N

Marie Lake
Highway 594
Annette Lake
Dionne Lake
Dafoe Lake
Ashton Lake
Cecile Lake
Yvonne Lake
Pipeline Road
Emilie Lake
Quintuplet Lake
Hogarth Avenue West
1St Street East
Geraldton
1St Street West
Main Street
Kenogamisis Lake (Outlet Basin)
Barton Bay (West)
Barton Bay (East)
Michael Power Blvd.
GCP-1
GCP-3
GCP-2
Mosher Lake
Glory Hole
Old Arena Road
Trans-Canada Highway 11
Hardrock Road
Kenogamisis Lake (Central Basin)
Pond A
Lahtis Road
SWP3
SWP4
SWP1
SWP2
Marron Lake
Kenogamisis Lake (Southwest)

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1:30,000

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Notes
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Legend
- Study Area (120 m)
- Existing Enbridge Gas Station
- Trans Canada Pipeline
- Preferred Route
- Potential Raptor Nesting Habitat
- Potential Waterfowl Nesting Habitat

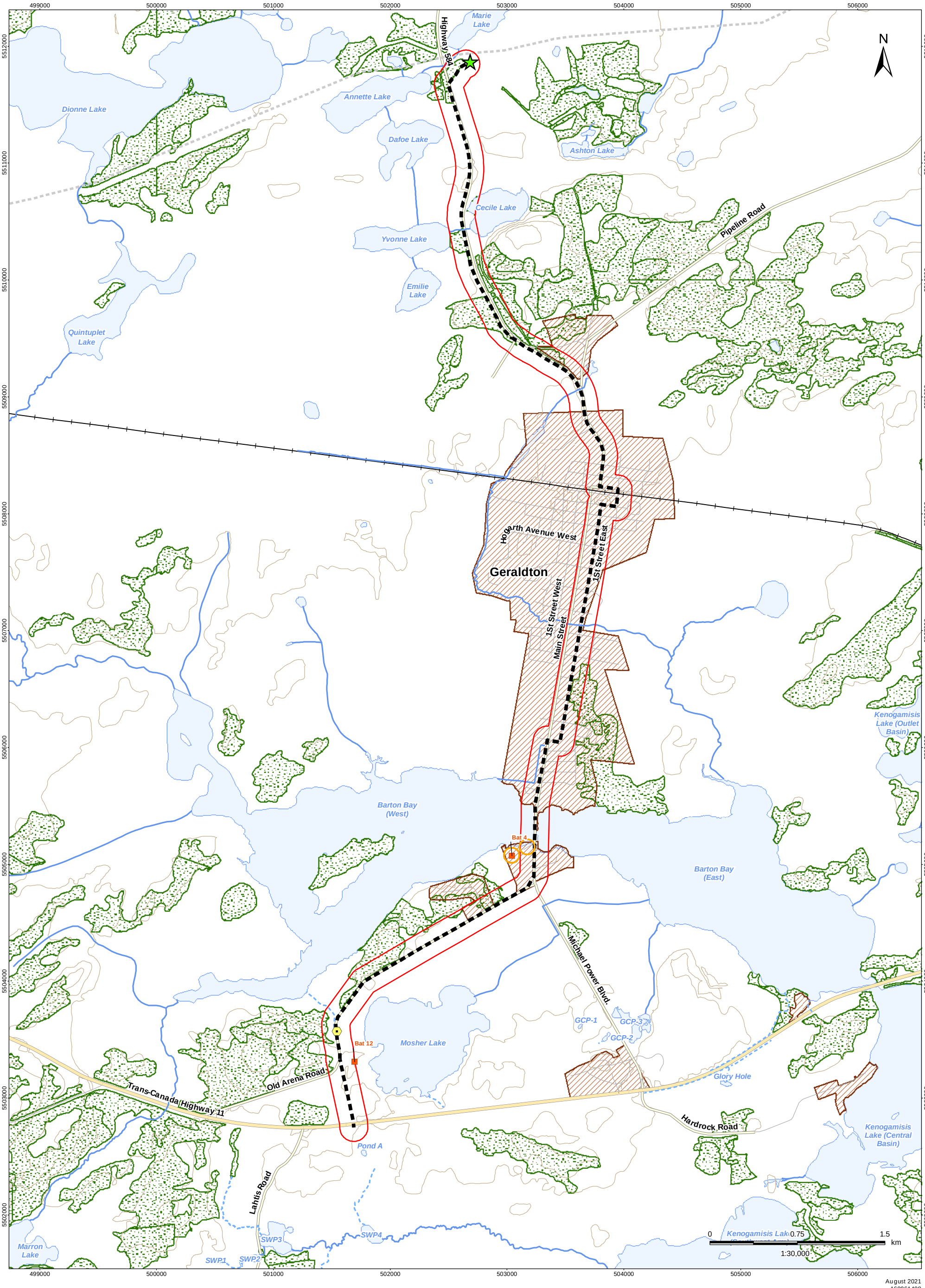
Existing
- Contour Line (10 m intervals)
- Highway
- Major Road
- Local Road
- Railway
- Watercourse- Permanent
- Watercourse- Intermittent
- Waterbody

Client/Project
Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix A

Figure No.
A8

Title
Bird Significant Wildlife Habitat

\\Ca0220-ppfss01\work_group\01609\active\60960975\drawing\MXD\terrestrial\ReportFigures\Natural_Heritage_2021_Addendum\160961408_Fig_A9_Bats_20210801.mxd
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Legend

- Study Area (120 m)
- Existing Enbridge Gas Station
- Trans Canada Pipeline
- Preferred Route

Survey Locations and Bat Observations

- Little Brown Myotis Observation
- Bat Audio-recorder Location
- Old Mine Structure

Bat Habitat and

- Potential Anthropogenic Maternity Roost Habitat
- Potential Natural Maternity Roost Habitat

Existing Features

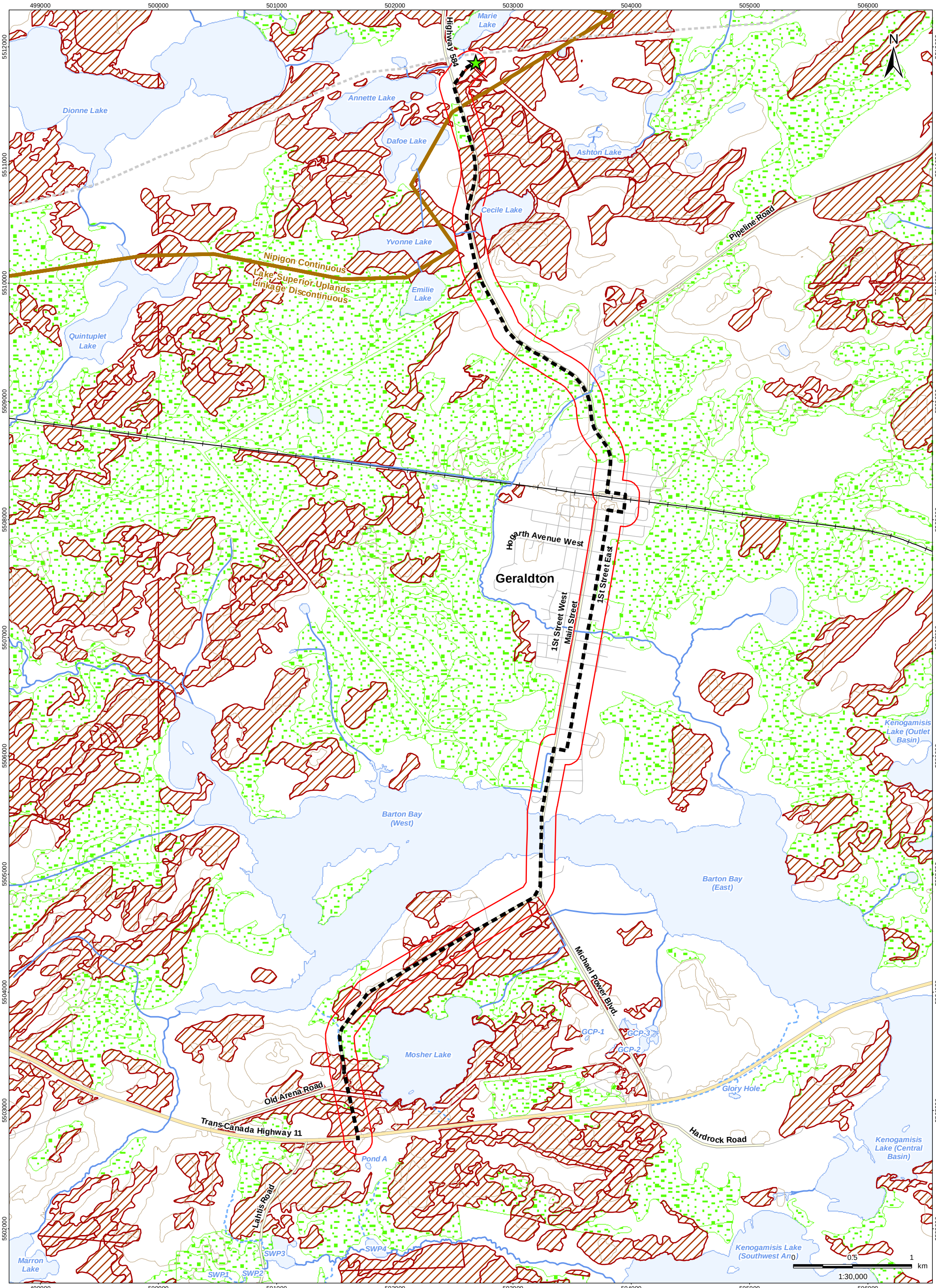
- Contour Line (10 m intervals)
- Highway
- Major Road
- Local Road
- Railway
- Watercourse- Permanent
- Watercourse- Intermittent
- Waterbody

Client/Project
Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix A

Figure No.
A9

Title
Bat Survey Stations, Observations, and Habitats

\\Ca0220-ppfs01\work_group\160961408\active\160961408\drawing\MXD\Terrestrial\ReportFigures\Natural_Heritage_2021_Addendum\160961408_Fig_A10_Ungulate_Butterfly_20210801.mxd
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Legend

- Study Area (120 m)
- Existing Enbridge Gas Station
- Trans Canada Pipeline
- Preferred Route
- Caribou Range Boundary (MNRF)
- Potential Moose Late Winter Cover
- Potential Taiga Alpine Habitat

Existing Features

- Contour Line (10 m intervals)
- Highway
- Major Road
- Local Road
- Railway
- Watercourse- Permanent
- Watercourse- Intermittent
- Waterbody

Client/Project
Enbridge Gas Inc.
Greenstone Pipeline Project
Appendix A

Figure No.
A10

Title
Ungulate and Butterfly Habitat

APPENDIX B
Wildlife List

Wildlife List

COMMON NAME	SCIENTIFIC NAME	ONTARIO STATUS	GLOBAL STATUS	COSSARO	COSEWIC
AMPHIBIANS					
American Toad	Anaxyrus americanus	S5	G5		
Spring Peeper	Pseudacris crucifer	S5	G5		
Wood Frog	Lithobates sylvatica	S5	G5		
Mink Frog	Lithobates septentrionalis	S5	G5		
Boreal Chorus Frog	Pseudacris maculata	S5	G5		
REPTILES					
Western Painted Turtle	Chrysemys picta belli	S4	G4G5		
BIRDS					
Canada Goose	Branta canadensis	S5	G5		
American Black Duck	Anas rubripes	S4	G5		
Mallard	Anas platyrhynchos	S5	G5		
Blue-winged Teal	Anas discors	S4	G5		
Green-winged Teal	Anas crecca	S4	G5		
Ring-necked Duck	Aythya collaris	S5	G5		
Ruffed Grouse	Bonasa umbellus	S5	G5		
Common Loon	Gavia immer	S5B,S5N	G5	NAR	NAR
American White Pelican	Pelecanus erythrorhynchos	S2B	G4	THR	NAR
Osprey	Pandion haliaetus	S5B	G5		
American Kestrel	Falco sparverius	S4	G5		
Sora	Porzana carolina	S4B	G5		
Sandhill Crane	Grus canadensis	S5B	G5	NAR	NAR

COMMON NAME	SCIENTIFIC NAME	ONTARIO STATUS	GLOBAL STATUS	COSSARO	COSEWIC
Wilson's Snipe	Gallinago delicata	S5B	G5		
American Woodcock	Scolopax minor	S4B	G5		
Bonaparte's Gull	Larus philadelphia	S4B,S4N	G5		
Herring Gull	Larus argentatus	S5B,S5N	G5		
Belted Kingfisher	Ceryle alcyon	S4B	G5		
Yellow-bellied Sapsucker	Sphyrapicus varius	S5B	G5		
Hairy Woodpecker	Picoides villosus	S5	G5		
Northern Flicker	Colaptes auratus	S4B	G5		
Pileated Woodpecker	Dryocopus pileatus	S5	G5		
Yellow-bellied Flycatcher	Empidonax flaviventris	S5B	G5		
Alder Flycatcher	Empidonax alnorum	S5B	G5		
Least Flycatcher	Empidonax minimus	S4B	G5		
Eastern Kingbird	Tyrannus tyrannus	S4B	G5		
Blue-headed Vireo	Vireo solitarius	S5B	G5		
Philadelphia Vireo	Vireo philadelphicus	S5B	G5		
Red-eyed Vireo	Vireo olivaceus	S5B	G5		
Gray Jay	Perisoreus canadensis	S5	G5		
Blue Jay	Cyanocitta cristata	S5	G5		
American Crow	Corvus brachyrhynchos	S5B	G5		
Common Raven	Corvus corax	S5	G5		
Black-capped Chickadee	Poecile atricapillus	S5	G5		
Boreal Chickadee	Poecile hudsonica	S5	G5		
Red-breasted Nuthatch	Sitta canadensis	S5	G5		
Brown Creeper	Certhia americana	S5B	G5		

COMMON NAME	SCIENTIFIC NAME	ONTARIO STATUS	GLOBAL STATUS	COSSARO	COSEWIC
House Wren	Troglodytes aedon	S5B	G5		
Winter Wren	Troglodytes hiemalis	S5B	G5		
Golden-crowned Kinglet	Regulus satrapa	S5B	G5		
Ruby-crowned Kinglet	Regulus calendula	S4B	G5		
Veery	Catharus fuscescens	S4B	G5		
Swainson's Thrush	Catharus ustulatus	S4B	G5		
Hermit Thrush	Catharus guttatus	S5B	G5		
American Robin	Turdus migratorius	S5B	G5		
Cedar Waxwing	Bombycilla cedrorum	S5B	G5		
Ovenbird	Seiurus aurocapilla	S4B	G5		
Northern Waterthrush	Parkesia noveboracensis	S5B	G5		
Blue-winged Warbler	Vermivora cyanoptera	S4B	G5		
Black-and-white Warbler	Mniotilta varia	S5B	G5		
Tennessee Warbler	Oreothlypis peregrina	S5B	G5		
Nashville Warbler	Oreothlypis ruficapilla	S5B	G5		
Mourning Warbler	Geothlypis philadelphia	S4B	G5		
Common Yellowthroat	Geothlypis trichas	S5B	G5		
American Redstart	Setophaga ruticilla	S5B	G5		
Magnolia Warbler	Setophaga magnolia	S5B	G5		
Blackburnian Warbler	Setophaga fusca	S5B	G5		
Yellow Warbler	Setophaga petechia	S5B	G5		
Chestnut-sided Warbler	Setophaga pensylvanica	S5B	G5		
Yellow-rumped Warbler	Setophaga coronata	S5B	G5		
Black-throated Green Warbler	Setophaga virens	S5B	G5		

COMMON NAME	SCIENTIFIC NAME	ONTARIO STATUS	GLOBAL STATUS	COSSARO	COSEWIC
Canada Warbler	Wilsonia canadensis	S4B	G5	SC	THR
Chipping Sparrow	Spizella passerina	S5B	G5		
Song Sparrow	Melospiza melodia	S5B	G5		
Lincoln's Sparrow	Melospiza lincolnii	S5B	G5		
Swamp Sparrow	Melospiza georgiana	S5B	G5		
White-throated Sparrow	Zonotrichia albicollis	S5B	G5		
Dark-eyed Junco	Junco hyemalis	S5B	G5		
Red-winged Blackbird	Agelaius phoeniceus	S4	G5		
Common Grackle	Quiscalus quiscula	S5B	G5		
Purple Finch	Haemorhouspurpureus	S4B	G5		
White-winged Crossbill	Loxia leucoptera	S5B	G5		
American Goldfinch	Carduelis tristis	S5B	G5		
Evening Grosbeak	Coccothraustes vespertinus	S4B	G5		
MAMMALS					
Little Brown Myotis	Myotis lucifugus	S4	G5	END	END
Northern Myotis	Myotis septentrionalis	S3?	G4	END	END
Big Brown Bat	Eptesicus fuscus	S5	G5		
Hoary Bat	Lasiurus cinereus	S4	G5		
Black Bear	Ursus americanus	S5	G5	NAR	NAR

Explanation of Status and Acronymns

COSSARO: Committee on the Status of Species at Risk in Ontario
COSEWIC: Committee on the Status of Endangered Wildlife in Canada
REGION: Rare in a Site Region
S1: Critically Imperiled—Critically imperiled in the province (often 5 or fewer occurrences)
S2: Imperiled—Imperiled in the province, very 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
SX: Presumed extirpated
SH: Possibly Extirpated (Historical)
SNR: Unranked
SU: Unrankable—Currently unrankable due to lack of information
SNA: Not applicable—A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
S#S#: Range Rank—A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species
S#B- Breeding status rank
S#N- Non Breeding status rank
?: Indicates uncertainty in the assigned rank
G1: Extremely rare globally; usually fewer than 5 occurrences in the overall range
G1G2: Extremely rare to very rare globally
G2: Very rare globally; usually between 5-10 occurrences in the overall range
G2G3: Very rare to uncommon globally
G3: Rare to uncommon globally; usually between 20-100 occurrences
G3G4: Rare to common globally
G4: Common globally; usually more than 100 occurrences in the overall range
G4G5: Common to very common globally
G5: Very common globally; demonstrably secure
GU: Status uncertain, often because of low search effort or cryptic nature of the species; more data needed.
GNR: Unranked—Global rank not yet assessed.
T: Denotes that the rank applies to a subspecies or variety
Q: Denotes that the taxonomic status of the species, subspecies, or variety is questionable.
END: Endangered
THR: Threatened
SC: Special Concern
2, 3 or NS after a COSEWIC ranking indicates the species is either on Schedule 2, Schedule 3 or No Schedule of the Species At Risk Act (SARA)

NAR: Not At Risk
IND: Indeterminant, insufficient information to assign status
DD: Data Deficient
6: Rare in Site Region 6
7: Rare in Site Region 7
Area: Minimum patch size for area-sensitive species (ha)
H- highly significant in Hamilton Region (i.e. rare)
m- moderately significant in Hamilton Region (i.e. uncommon)
L1- extremely rare locally (Toronto Region)
L2- very rare locally (Toronto Region)
L3- rare to uncommon locally (Toronto Region)
HR- rare in Halton Region, highly significant
HU- uncommon in Halton Region, moderately significant

* The Pileated Woodpecker will incorporate smaller woodlots into its homerange, therefore it may not be a true area-sensitive species (Naylor et al. 1996)

LATEST STATUS UPDATE

Odonata: April 2015
Butterflies: July 2014
Bumble Bees: March 2015
Other Arthropods: July 2014
Amphibans: July 2014
Reptiles: April 2015
Birds: April 2015
Mammals: April 2015
S and G ranks and explanations: December 2011

NOTE

All rankings for birds refer to breeding birds unless the ranking is followed by N

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APPENDIX C
Field Survey Record

Table C-1: Terrestrial Ecosystems Field Survey Details

Survey Date/Time	Surveyor(s)	Targeted Survey Type	Survey Details
VEGETATION SURVEYS			
June 17, 2015 9:00-14:00	S. Hart T. Rhaintre	Ecosite Confirmation, Botanical Inventory	16°C; 1 wind; 40% cloud cover
June 18, 2015 9:00-14:00	S. Hart T. Rhaintre	Ecosite Confirmation, Botanical Inventory	4-13°C; 0-3 wind; overcast to clear cloud cover; drizzle
June 30, 2015 N/A	NBS	Ecosite Confirmation, Botanical Inventory	N/A
WILDLIFE SURVEYS			
Amphibian			
May 28, 2015 N/A	A. Harris	Salamander Egg Mass, Calling Anurans	12-14°C; 1-3 wind; 50-80% cloud cover; no rain
May 29, 2015 22:14 – 23:00	A. Harris	Salamander Egg Mass, Calling Anurans	8-12°C; 1-2 wind; 50-90% cloud cover; no rain
May 30, 2015 N/A	A. Harris	Salamander Egg Mass, Calling Anurans	8°C; 2 wind; 60% cloud cover; no rain
June 16, 2015 22:41 - 23:55	S. Hart T. Rhaintre	Salamander Egg Mass, Calling Anurans	15-18°C; 0-1 wind; 20-40% cloud cover; no rain
June 17, 2015 N/A	A. Harris	Salamander Egg Mass, Calling Anurans	16°C; 1 wind; 40% cloud cover; no rain
June 27, 2015 22:07 - 23:53	A. Harris	Salamander Egg Mass, Calling Anurans	17-21°C; 0-1 wind; 50-80% cloud cover; no rain
June 28, 2015 N/A	S. Hart T. Rhaintre	Salamander Egg Mass, Calling Anurans	17°C; 0 wind; 50% cloud cover; no rain
Birds			
June 18, 2015 9:03-9:50	NBS	Dawn Breeding Bird	4-13°C; 0-3 wind; overcast to clear cloud cover; drizzle
June 24, 2015 05:57 – 09:14	NBS	Dawn Breeding Bird	11°C; 0-2 wind; overcast to part cloud cover
June 25, 2015 5:28 – 09:24	NBS	Dawn Breeding Bird	10-13°C; 0-1 wind; clear cloud cover
July 3, 2015 09:12 – 09:22	A. Harris	Dawn Breeding Bird	3 wind

Table C-1: Terrestrial Ecosystems Field Survey Details

Survey Date/Time	Surveyor(s)	Targeted Survey Type	Survey Details
July 7, 2015 06:22 – 08:52	A. Harris	Dawn Breeding Bird	9-14°C; 1-3 wind; overcast to part cloud to clear cloud cover
July 8, 2015 06:07 – 09:20	A. Harris	Dawn Breeding Bird	10-16°C; 0-2 wind; clear cloud cover
July 9, 2015 06:29 – 07:30	A. Harris	Dawn Breeding Bird	10°C; 1 wind; overcast cloud cover
May 29, 2015 22:15 - 00:15	A. Harris T. Rhaintre	Crepuscular Breeding Bird	7-14°C; 1-3 wind; 50-90% cloud cover
May 30, 2016 N/A	A. Harris T. Rhaintre	Crepuscular Breeding Bird	8°C; 2 wind; 60% cloud cover
June 16, 2015 22:41 - 23:55	T. Rhaintre S. Hart	Crepuscular Breeding Bird	16-18°C; 0-2 wind; 20-30% cloud cover
June 17, 2015 0:04-0:15	T. Rhaintre S. Hart	Crepuscular Breeding Bird	16-19°C; 0-1 wind; 40% cloud cover
July 8, 2015 12:38 - 02:28	A. Harris	Crepuscular Breeding Bird	12-16°C; 0-2 wind; 0% cloud cover
July 9, 2015 01:01-02:00	A. Harris	Crepuscular Breeding Bird	11-13°C; 1-3 wind; 0-30% cloud cover
September 17, 2015 8:30 - 12:40	A. Harris	Waterbird Migration	15°C; 2 wind; overcast cloud cover; intermittent rain
Mammals			
July 7, 2015 N/A	A. Harris	Endangered Bat Species - Acoustic	8-17°C; 1-2 wind; overcast; light rain
July 8, 2015 12:38 - 02:28	A. Harris	Endangered Bat Species - Acoustic	12-16°C; 0-2 wind; 0% cloud cover
July 9, 2015 01:01-02:00	A. Harris	Endangered Bat Species - Acoustic	11-13°C; 1-3 wind; 0-30% cloud cover
July 20, 2015 09:00 – 17:00	T. Rhaintre S. Hart	Bat Hibernacula Habitat Assessment	N/A
September 9, 2016 20:20-21:30	L. Vares	Bat Swarming Surveys	17°C; 1 wind; 25% cloud cover; no rain
September 12, 2016 20:00-21:15	L. Vares	Bat Swarming Surveys	10°C; 2 wind; variable overcast; light rain
September 13, 2016 20:10-21:30	L. Vares	Bat Swarming Surveys	10°C; 1 wind; 25% cloud cover; no rain

Table C-1: Terrestrial Ecosystems Field Survey Details

Survey Date/Time	Surveyor(s)	Targeted Survey Type	Survey Details
September 14, 2016 20:00-21:30	L. Vares	Bat Swarming Surveys	13°C; 3 wind; variable overcast; no rain
September 15, 2016 20:00-21:05	L. Vares	Bat Swarming Surveys	15°C; 3 wind; 80% cloud cover; no rain
September 16, 2016 20:00-21:02	L. Vares	Bat Swarming Surveys	15°C; 2 wind; overcast; light rain
September 17, 2016 19:55-21:02	L. Vares	Bat Swarming Surveys	10°C; 3 wind; overcast; drizzle
September 18, 2016 19:55-21:00	L. Vares	Bat Exit Survey	15°C; 2 wind; 80% cloud cover; no rain
September 19, 2016 19:50-21:00	L. Vares	Bat Swarming Surveys	12°C; 4 wind; variable overcast; light rain
September 20, 2016 19:50-21:00	L. Vares	Bat Swarming Surveys	16°C; 3 wind; 80% cloud cover; no rain

APPENDIX E
CULTURAL HERITAGE ASSESSMENT REPORT

Ministry of Heritage, Sport, Tourism, and Culture Industries

Programs and Services Branch
401 Bay Street, Suite 1700
Toronto, ON M7A 0A7
Tel: 416.314.7643

Ministère des Industries du Patrimoine, du Sport, du Tourisme et de la Culture

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Ontario

January 15, 2020 Email Only

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MHSTCI File : 0009475
Your File : 160960975
Proponent : Union Gas
Subject : Review of Revised Cultural Heritage Assessment Report (CHAR)
Project : Greenstone Pipeline Project
Location : Municipality of Greenstone, District of Thunder Bay

Dear Ms. Walter:

Thank you for providing the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) with the revised *Greenstone Pipeline Project: Cultural Heritage Assessment Report* (Stantec Consulting Ltd., October 25, 2019) for the above-referenced project.

Comments
MHSTCI has reviewed the revised document with respect to our comments of March 15, 2019. MHSTCI finds that due diligence has been undertaken by modifying the original report to address our March 15, 2019 comments.

MHSTCI has no further comments on the CHAR. Should you have any questions, please contact the undersigned.

Regards,

Katherine Kirzati
Heritage Planner
Heritage Planning Unit
katherine.kirzati@ontario.ca

c: Mira Majerovich, MECP

It is the sole responsibility of proponents to ensure that any information and documentation submitted as part of their EA report or file is accurate. MHSTCI makes no representation or warranty as to the completeness, accuracy or quality of any checklists, reports or supporting documentation submitted as part of the EA process and in no way shall MHSTCI be liable for any harm, damages, costs, expenses, losses, claims or actions that may result if any checklists, reports or supporting documents are discovered to be inaccurate, incomplete, misleading or fraudulent.

Please notify MHSTCI if archaeological resources are impacted by EA project work. All activities impacting archaeological resources must cease immediately and a licensed archaeologist is required to carry out an archaeological assessment in accordance with the *Ontario Heritage Act* and the *Standards and Guidelines for Consultant Archaeologists*.

If human remains are encountered, all activities must cease immediately and the local police as well as the Registrar, Burials of the Ministry of Government and Consumer Services (416.326.8800) must be contacted. In situations where human remains are associated with archaeological resources, MHSTCI should also be notified to ensure that the site is not subject to unlicensed alterations which would be a contravention of the *Ontario Heritage Act*.

Greenstone Pipeline Project: Cultural Heritage Assessment Report

Final Report

October 25, 2019

File No. 160960975

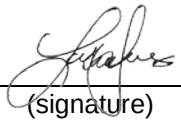
Prepared for:

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Prepared by 
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Executive Summary

As of January 1, 2019, Union Gas and Enbridge Gas Distribution have amalgamated into one utility with the legal name Enbridge Gas Inc. (Enbridge Gas). To secure the continued reliable delivery of natural gas and to serve a growing demand for affordable natural gas, Enbridge Gas is proposing to construct a new 6-inch (15.24 centimetre (cm) diameter steel natural gas pipeline within the Municipality of Greenstone, Ontario (the 'Project'). The 14.3 kilometre (km) pipeline would commence at the existing Enbridge Gas Valve Site located 3.5 km north of Geraldton, Ontario which is adjacent to the TransCanada pipeline. The proposed pipeline terminates at the planned GGM processing facility south of TransCanada Highway 11, between Lahtis Road and Hardrock Road.

Enbridge Gas retained Stantec to undertake an environmental study of the construction and operation of the natural gas pipeline. The Ontario Energy Board (OEB) *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario* (the OEB Guidelines) (OEB 2011) require that where the Project may affect known or potential heritage resources, further studies may be required. In order to identify the presence of heritage resources within the Study Area, understand the potential impacts of the Project on these resources, and prepare mitigation strategies to minimize these impacts, it was determined that a Cultural Heritage Assessment Report (CHAR) would be prepared.

The study methodology is broadly based on guidelines provided by the Ministry of Tourism Culture and Sport (MTCS) within InfoSheet #5 in *Heritage Resources in the Land Use Planning Process, Cultural Heritage and Archaeology Policies of the Ontario Provincial Policy Statement, 2005* (Government of Ontario 2006b). The OEB Guidelines make provisions for the consideration of heritage in the pipeline development planning stage of the Project. The *OEB Environmental Guidelines* stipulate that pipeline proponents are responsible for demonstrating the appropriate level of due diligence regarding heritage resources. This involves both the identification of heritage resources and the assessment of impacts of the Project on these resources. According to the OEB Guidelines, due diligence should be exhibited by:

- Recognizing cultural heritage resources that may be affected by pipeline development, identifying significant cultural heritage resources and understanding their cultural heritage value or interest
- Assessing the effects or impacts that could result from proposed pipeline development
- Protecting cultural heritage resources by appropriate conservation, avoidance and mitigation

The CHAR was composed of a program of archival research focused on the Study Area. To familiarize the study team with the Study Area, local historical resources were consulted, archival documents were reviewed, and a summary of the historical background of the local area was prepared. Listings of provincially and locally designated properties, districts and easements for each municipality were collected from the Municipality of Greenstone, the Ontario Heritage Trust (OHT), and the MTCS.

A vehicular ‘windshield survey’ was conducted on July 18, 19 and 20, 2017 on publicly accessible roadways. During the survey, the Study Area was surveyed for potential heritage resources, including both potential built heritage resources and components of cultural heritage landscapes. Where identified, these were photographed and their locations recorded. Characteristics of each potential heritage resource were noted while in the field and their locations recorded. A total of 207 sites were identified as containing potential heritage resources.

Where a potential heritage resource was identified within the Study Area, an evaluation of the cultural heritage value or interest of the property, or properties, was undertaken. Where cultural heritage value or interest was identified, a structure or landscape was assigned a heritage resource (HR) number and the property was determined to contain a heritage resource. Evaluations for each property are contained within Appendix A. A total of 14 heritage resources were identified within the Study Area following evaluation.

Where a heritage resource was identified within or across the Study Area, an assessment of potential impacts as a result of the Project was undertaken. The assessment of potential impacts was undertaken according to InfoSheet #5 (Government of Ontario 2006b). Given the proposed undertaking, the evaluation of potential impacts was undertaken where a component, or heritage attribute, of the heritage resource was positioned directly within the Project Location.

Where potential impacts are identified, measures to mitigate the have been prepared. A total of 14 heritage resources were identified within 50 metres of the Project Location and are at risk of indirect vibration related impacts resulting from construction activities. Following analysis, it was determined that the use of isolation and buffer zones is the preferred mitigation option in order to reduce negative indirect Project Impacts.

In order to assist in the retention of historic information, copies of this report should be deposited with local libraries and municipalities. Therefore, it is recommended that this report be deposited at the Greenstone Public Library, Geraldton Branch.

Project Personnel

Project Manager:	Mark Knight, MA, RPP, MCIP,
Heritage Consultant:	Lashia Jones, MA, CAHP
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Independent Reviewer:	Tracie Carmichael, BA, B.Ed.

Abbreviations

CHAR	Cultural Heritage Assessment Report
CHL	Cultural Heritage Landscape
CHVI	Cultural Heritage Value or Interest
ER	Environmental Report
HR	Heritage Resource
MTCS	Ministry of Tourism, Culture and Sport
OEB	Ontario Energy Board
OHT	Ontario Heritage Trust
PPS	Provincial Policy Statement
RoW	Right of Way

1.0 INTRODUCTION

1.1 STUDY PURPOSE AND OBJECTIVES

As of January 1, 2019, Union Gas and Enbridge Gas Distribution have amalgamated into one utility with the legal name Enbridge Gas Inc. (Enbridge Gas). In 2017, Enbridge Gas retained Stantec Consulting Ltd. to conduct an environmental study addressing a proposed natural gas pipeline approximately 14.3 kilometres (km) in length (Figure 1). As part of this study, Stantec identified the need to consider heritage resources as defined by Section 4.3.4 of the Ontario Energy Board (OEB) *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario* (the OEB Guidelines) (OEB 2011). The OEB Guidelines require that where the Project may affect known or potential heritage resources, further studies may be required. To identify the presence of heritage resources within the Study Area, understand the potential impacts of the Project on these resources, and prepare mitigation strategies to minimize these impacts, it was determined that a Cultural Heritage Assessment Report (CHAR) would be prepared.

To meet these objectives, the CHAR:

- Summarizes the historical context of the area surrounding the Project
- Identifies properties protected under the *Ontario Heritage Act* through consultation with the local heritage planners and regulatory bodies
- Identifies and describes potential heritage resources situated on properties within the Project Location based on a windshield survey of the Study Area
- Evaluates the cultural heritage value or interest of potential heritage resources at the Project Location according to *Ontario Regulation* (O. Reg.) *9/06* to determine the heritage resources within the Study Area
- Identifies areas of potential impacts according to the Ministry of Tourism, Culture and Sport's (MTCS) InfoSheet #5 in *Heritage Resources in the Land Use Planning Process, Cultural Heritage and Archaeology Policies of the Ontario Provincial Policy Statement, 2005* (Government of Ontario 2006)
- Establishes measures to mitigate negative direct or indirect impacts to heritage resources associated with construction and operation of the Project

1.2 PROJECT OVERVIEW

To service the Hardrock Project proposed by Greenstone Gold Mines (GGM) with clean, affordable natural gas, Enbridge Gas is proposing to construct a new 6-inch (15.24 centimetre (cm)) diameter steel natural gas pipeline within the Municipality of Greenstone, Ontario (the Project). The 14.3 km pipeline would commence at the existing Enbridge Gas Valve Site located 3.5 km north of Geraldton, Ontario,

which is adjacent to the TransCanada pipeline (Figure 2). The proposed pipeline terminates at the planned GGM processing facility south of TransCanada Highway 11, between Lahtis Road and Hardrock Road.

Enbridge Gas retained Stantec Consulting Ltd. (Stantec) to undertake an environmental study of the Project and subsequently prepare an Environmental Report (ER). The environmental study included the identification of a preferred route that presents the least potential for environmental and socio-economic impacts.

1.3 ACTIVITY SUMMARY

The pipeline replacement construction process includes various activities as described below:

Constructing the Proposed Pipeline

1. Stringing: The stringing crew lays pipe on wooden skids adjacent to the trench area.
2. Pipe Fabrication: Next, the pipe is bent as required and the welding crew welds the pipe into continuous lengths. The pipe welds are non-destructively tested (i.e. x-ray) and coated.
3. Trenching and Lowering: After the pipe is fabricated, a trenching machine or hydraulic hoe can begin excavating a new trench. In agricultural areas, tiles that are cut during the trench excavation are flagged and repaired as quickly as practical. Crews also install pipes under obstacles such as roads or watercourses through a variety of different means.
4. Backfilling: The backfilling crew backfills the originally excavated subsoil 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. In agricultural areas, after the trench is backfilled, a tiling crew repairs disturbed or broken tiles. Landowners with tile drainage are given the opportunity to inspect tile repairs. A tile consultant is retained to oversee tile repairs and the design of a header tile system if required.
5. Hydrostatic Testing: The pipeline is then tested hydrostatically. Water is typically drawn by permit from nearby water sources such as watercourses or lakes, if available. Municipal water may at times also be used for hydrostatic testing. Upon completion of the hydrostatic testing, the pipeline is purged of air and packed with natural gas.
6. Clean-Up and Restoration: The clean-up crew is responsible for the restoration of the Right of Way (RoW) and other work areas. On agricultural land, this may require decompaction of the subsoil (i.e. chisel ploughing) and stone picking to maintain productivity. In natural areas the clean-up crew undertakes restoration including re-seeding of the RoW and restoring ditch banks, watercourse crossings and wetland areas, and removing erosion and sediment controls. In developed areas the clean-up crew undertakes landscaping plans developed for site restoration.

1.4 TERMINOLOGY

Project Location refers to any land or air space in, on, over, or under which part of the proposed pipeline is situated. It is understood that for the purposes of this CHAR the Project Location is contained within the municipal road RoW and the Project Location terminates at the boundary of the municipal RoW.

Study Area refers to all properties through which the Project Location is proposed to pass through plus a 50 metre area surrounding the Project components. This area was used to define the limit of site investigations and is based on an understanding of property parcel boundaries.

Heritage Resource refers to built or cultural resources where cultural heritage value or interest (CHVI) has been determined according to O. Reg. 9/06. Prior to evaluation, resources identified to be 40 years of age or older are considered to be *potential* heritage resources. There are two categories of heritage resources: Built Heritage Resources and Cultural Heritage Landscapes. For the purposes of this report, the term heritage resource is used exclusively unless assessing the cultural heritage value or interest of a potential heritage resource.

Built Heritage Resource (BHR) refers to a single building, structure, monument, installation or remains determined to be of CHVI following evaluation according to O. Reg. 9/06. In addition this includes properties protected under the *Ontario Heritage Act* or listed by local, provincial or federal jurisdictions. This may include residences, barns, bridges, and similar features (based on definition provided in the 2014 *Provincial Policy Statement* (PPS) (Government of Ontario 2014).

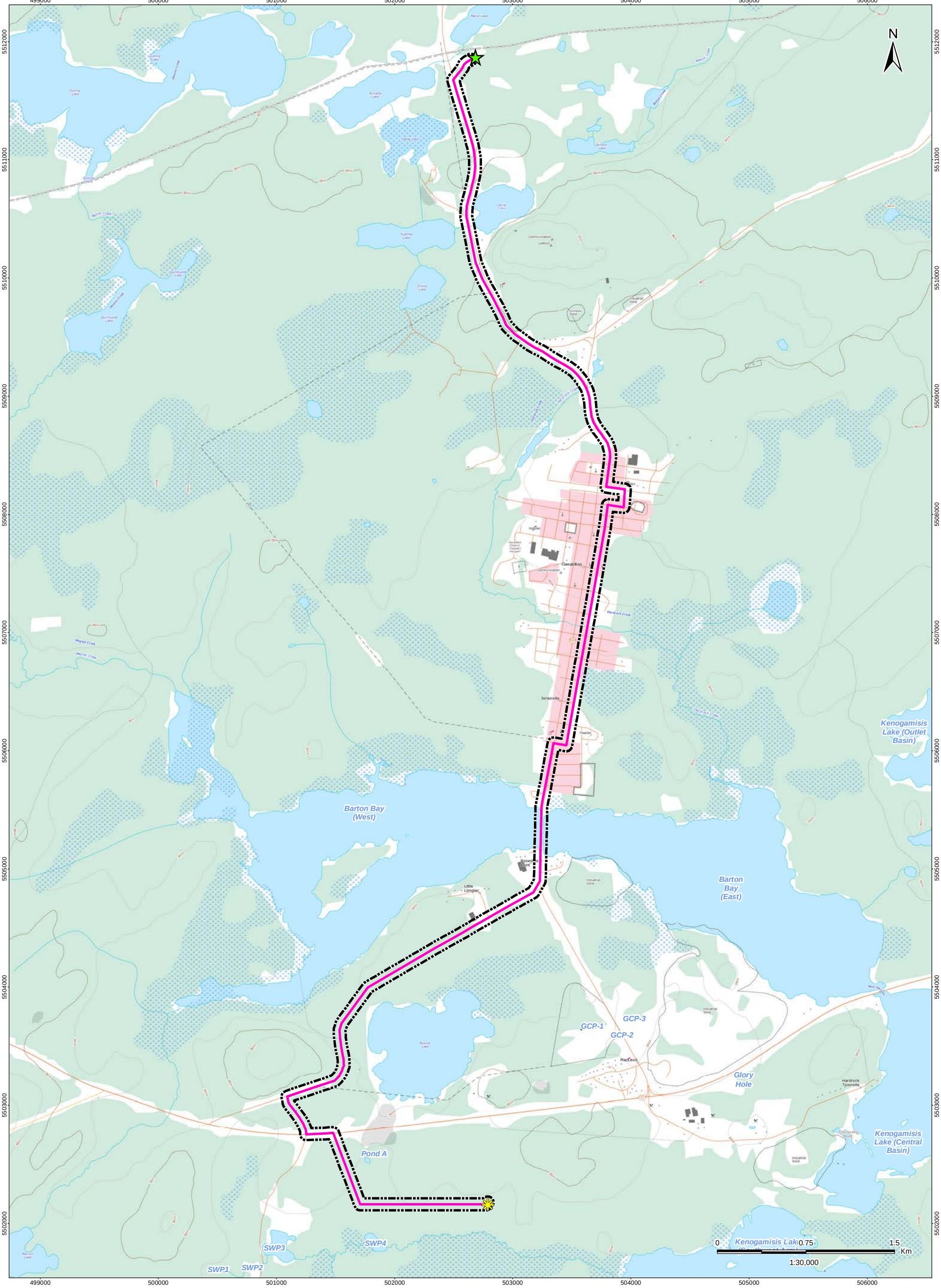
Cultural Heritage Landscape (CHL) refers to a defined geographical area modified by human activities and determined to be of CHVI following evaluation according to O. Reg. 9/06. In addition this includes properties protected under the *Ontario Heritage Act* or listed by local, provincial or federal jurisdictions. This may include grouping(s) of individual heritage features such as structures, spaces, archaeological sites and natural elements, which together form an important type of heritage form, distinctive from that of its constituent elements or parts (based on definition provided in the PPS) (Government of Ontario 2014).

Heritage attributes refers to the components of a heritage resource that define its CHVI. These may include, but are not limited to, principal features, characteristics, context, and appearance of a heritage resource (based on definition provided in the PPS) (Government of Ontario 2014).

Protected Heritage Property refers to properties which are designated under, or subject to an easement made under, the *Ontario Heritage Act*, as well as properties identified by provincial authorities and proscribed public bodies as a provincial heritage property. In addition, protected heritage property includes those identified by federal or international authorities as such including, but not limited to, Parks Canada or UNESCO (based on definition provided in the PPS) (Government of Ontario 2014).

Potential Heritage Property refers to any property previously identified by municipal staff or provincial agencies as containing, or having the potential to contain, cultural heritage value or interest. This includes properties identified on municipal registers, lists, or inventories of potential heritage resources. Potential heritage properties are also those identified in the windshield study as being over 40 years of age and are evaluated for their potential to have cultural heritage value or interest.

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Stantec

Legend

- Cultural Heritage Study Area
- Existing Union Gas Station
- Proposed Hardrock Processing Facility
- Preliminary Preferred Route
- Trans Canada Pipeline

Notes

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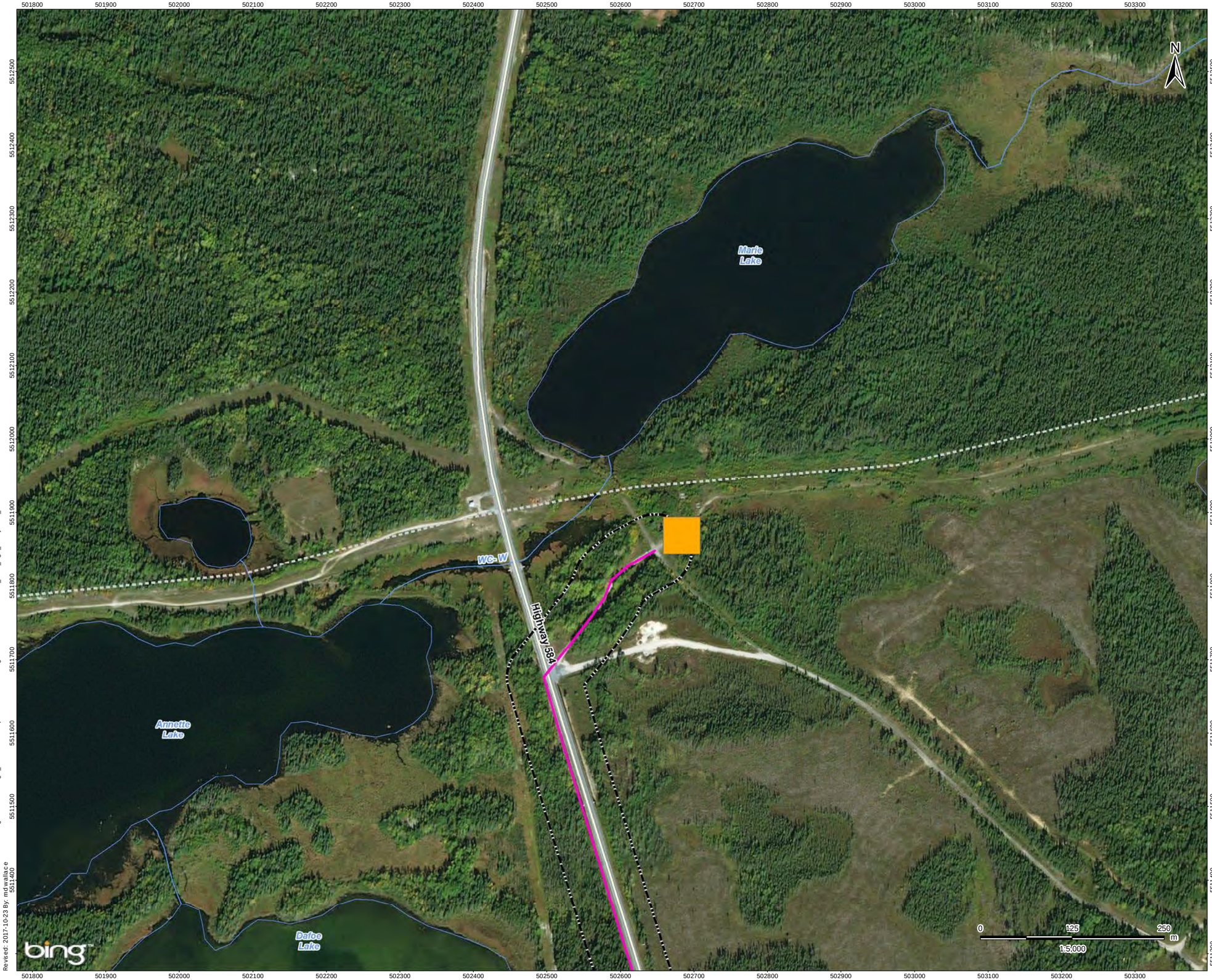
Enbridge Gas Inc.
Premier Pipeline Project
Cultural Heritage Assessment

Figure No.

1

Title

Project Location



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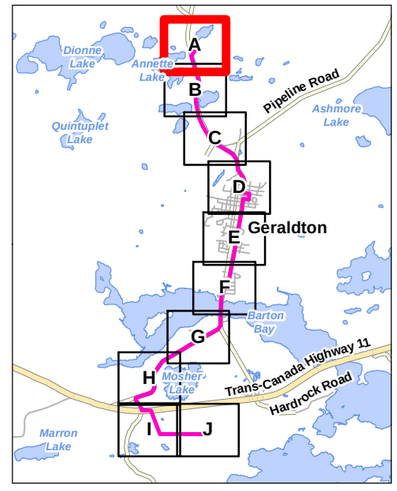
Stantec

Legend

- Cultural Heritage Study Area
- Existing Union Gas Station
- Preliminary Preferred Route

Existing Features

- Major Road
- Trans Canada Pipeline
- Watercourse
- Waterbody



Notes

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Cultural Heritage Assessment

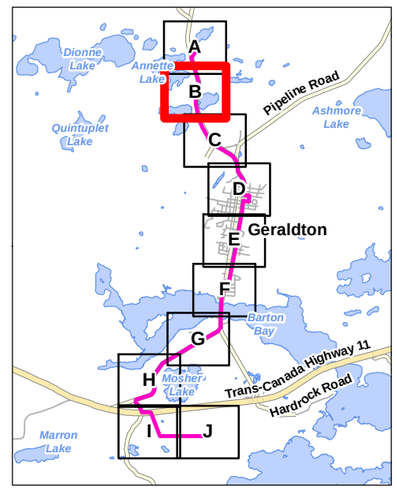
Figure No.

2 - A

Title

Cultural Heritage Assessment Study Area Mapbook





Stantec

Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route

Existing Features

- Major Road
- Watercourse
- Waterbody

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Cultural Heritage Assessment

Figure No.

2 - B

Title

Cultural Heritage Assessment Study Area Mapbook

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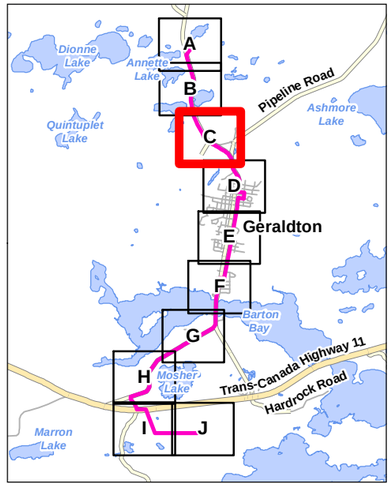
Stantec

Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route

Existing Features

- Major Road
- Local Road
- Watercourse
- Waterbody



Notes

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Cultural Heritage Assessment

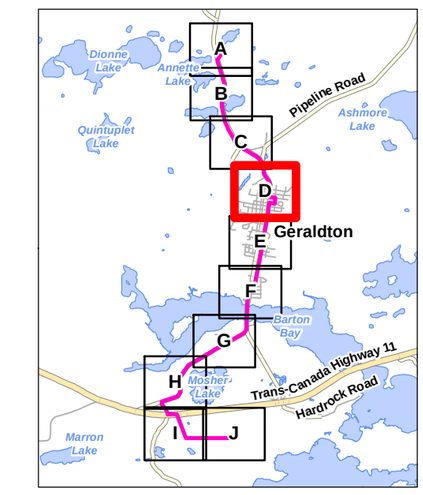
Figure No.

2 - C

Title

Cultural Heritage Assessment Study Area Mapbook





Stantec

Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route

Existing Features

- Major Road
- Local Road
- Railway
- Watercourse
- Waterbody

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Cultural Heritage Assessment

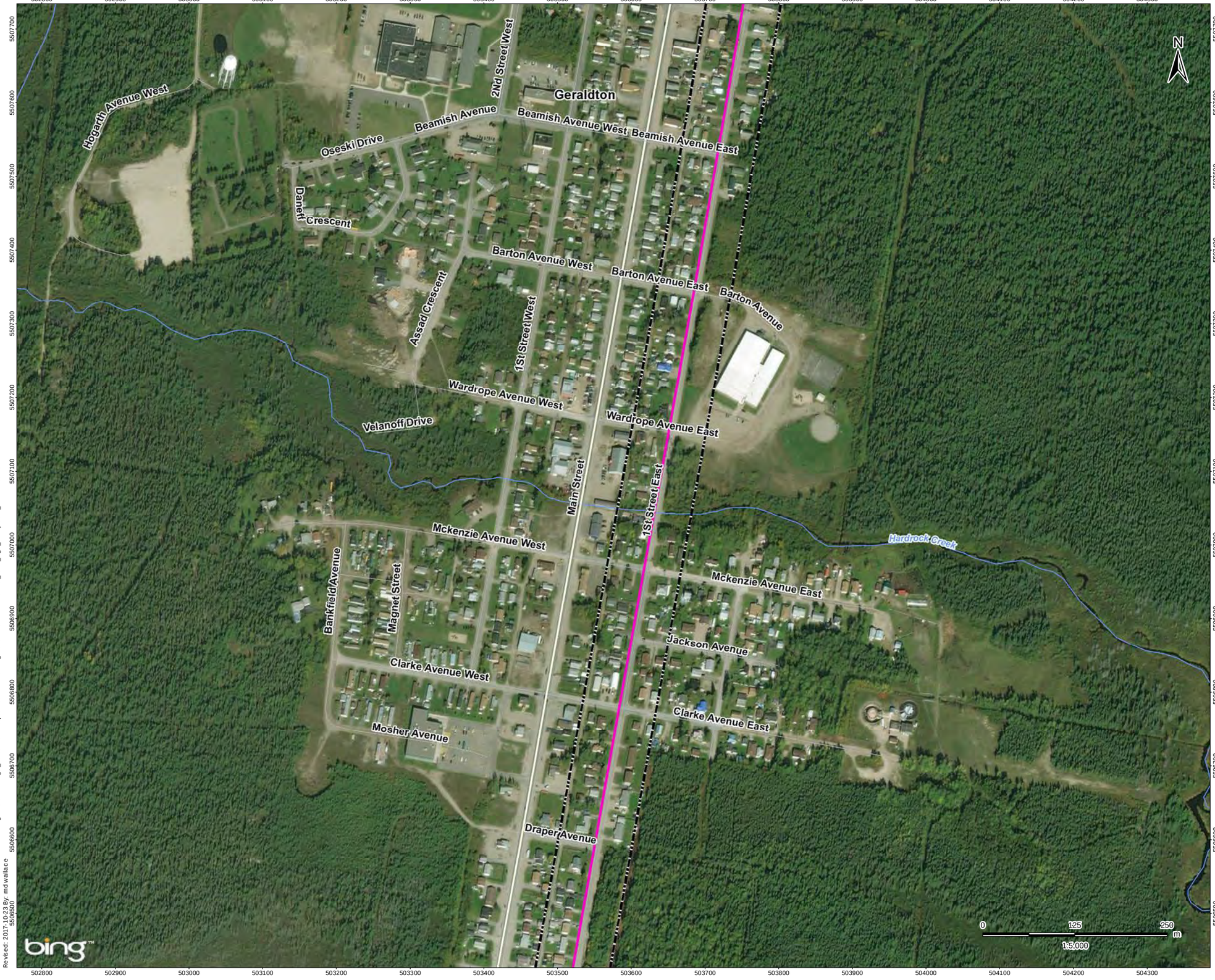
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Cultural Heritage Assessment Study Area Mapbook

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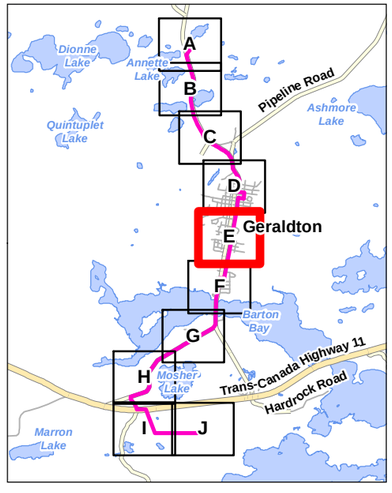
Stantec

Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route

Existing Features

- Major Road
- Local Road
- Watercourse



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Cultural Heritage Assessment

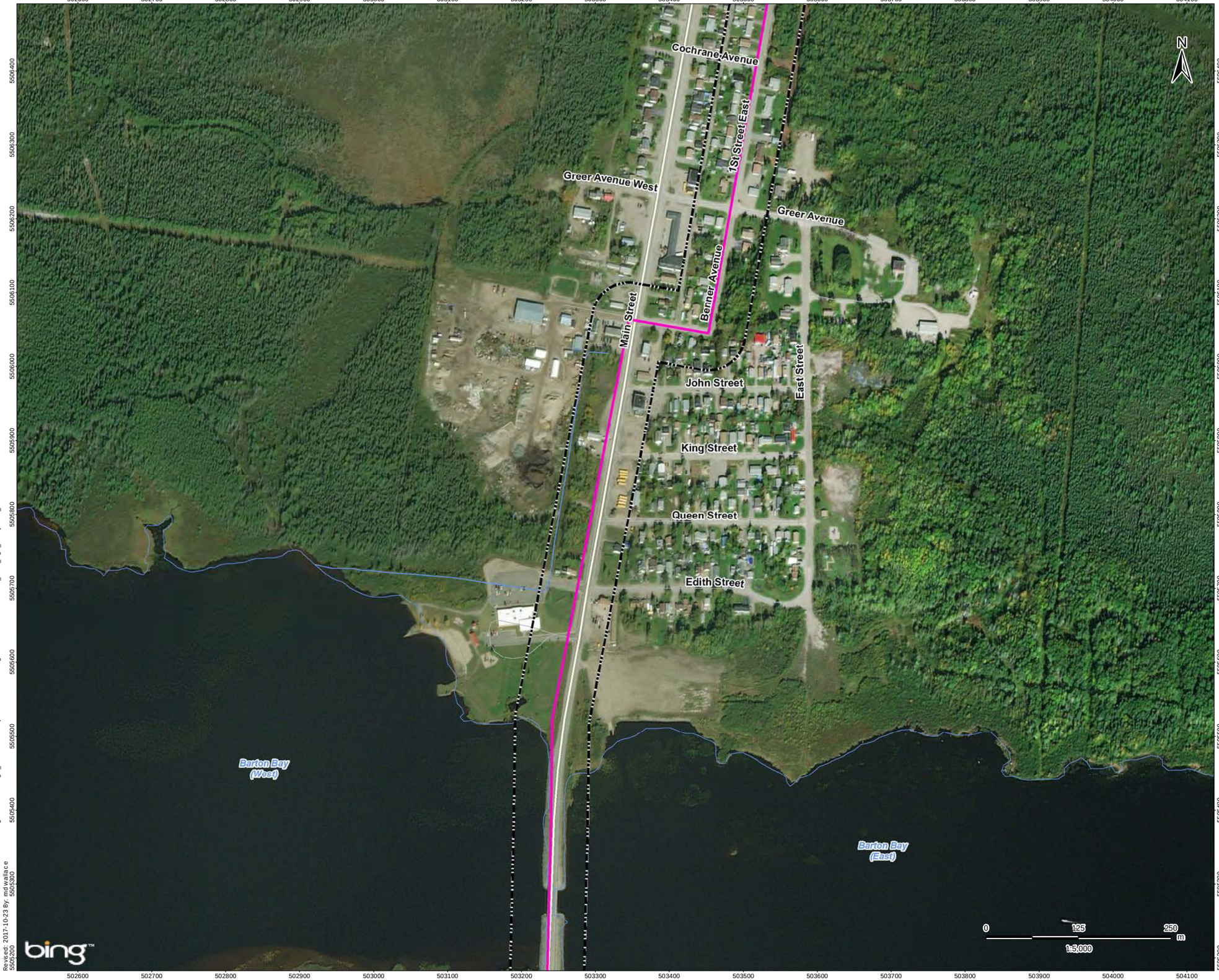
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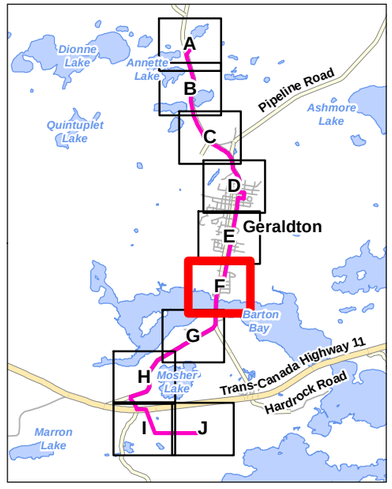
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Stantec

Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route

Existing Features

- Major Road
- Local Road
- Watercourse
- Waterbody

Notes

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Cultural Heritage Assessment

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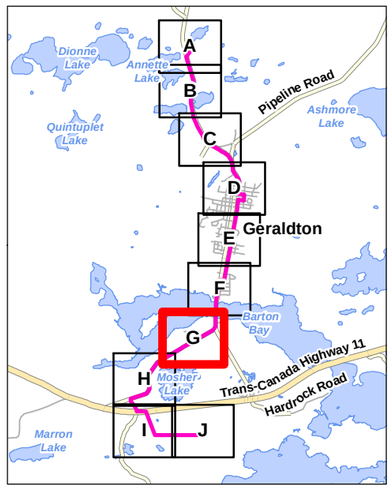
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Stantec

Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route

Existing Features

- Major Road
- Local Road
- Watercourse
- Waterbody

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Cultural Heritage Assessment

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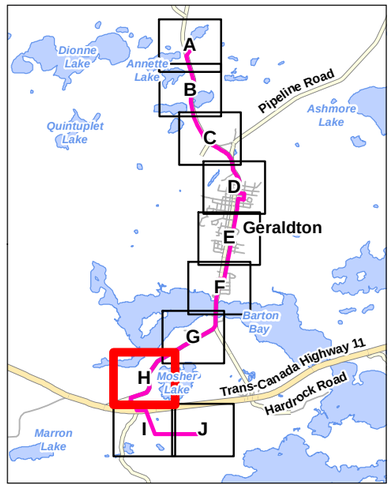
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Cultural Heritage Assessment
Study Area Mapbook

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Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route

Existing Features

- Major Road
- Watercourse
- Waterbody

Notes

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Cultural Heritage Assessment

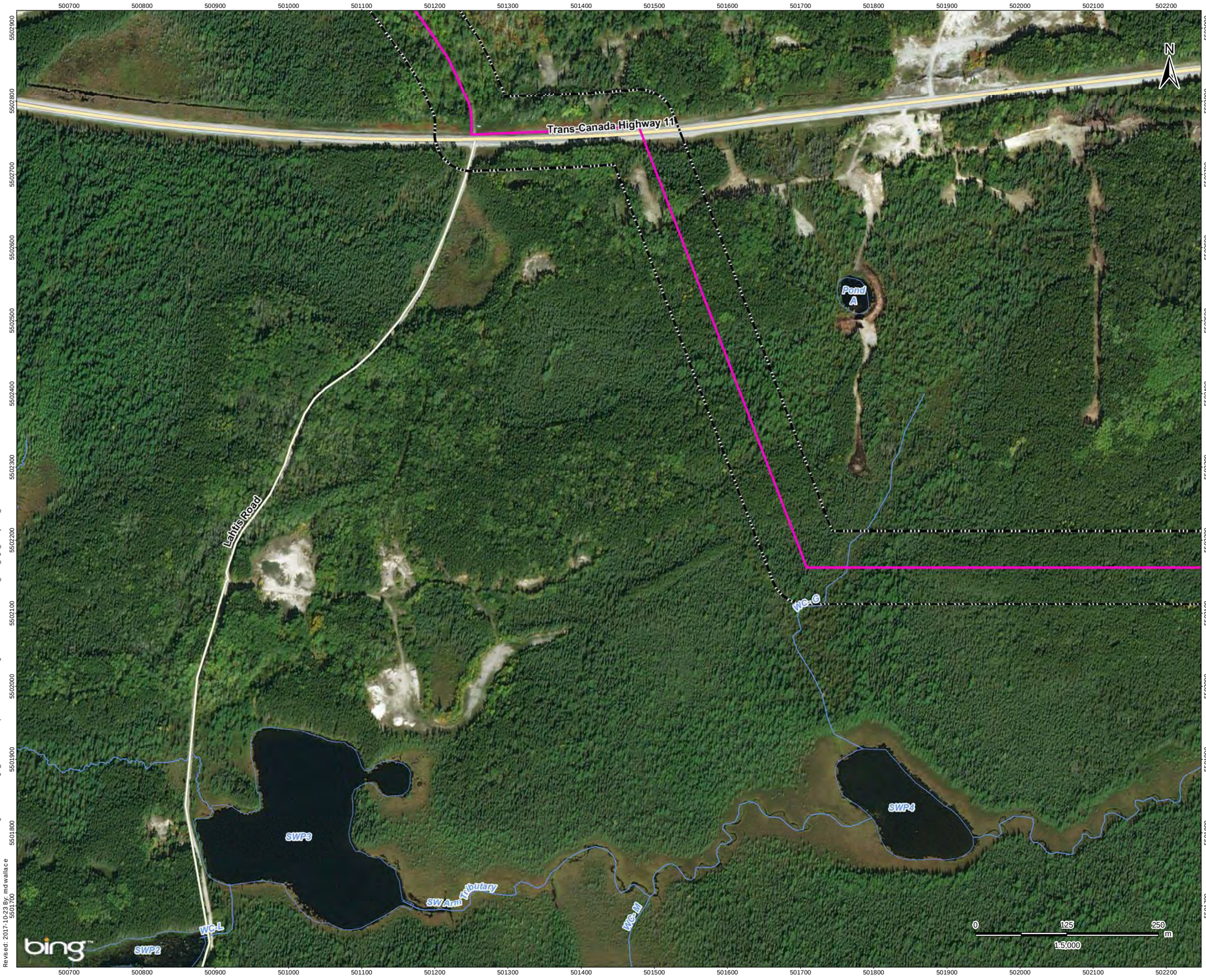
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Cultural Heritage Assessment
Study Area Mapbook

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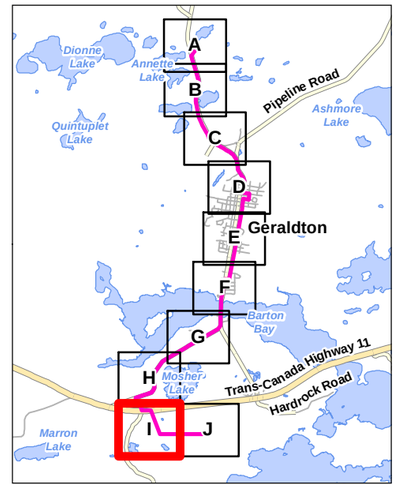
Stantec

Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route

Existing Features

- Highway
- Major Road
- Watercourse
- Waterbody



Notes

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Premier Pipeline Project
Cultural Heritage Assessment

Figure No.

2 - I

Title

Cultural Heritage Assessment Study Area Mapbook

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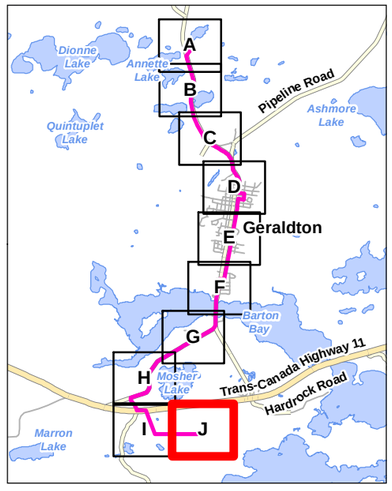
Stantec

Legend

- Cultural Heritage Study Area
- Proposed Hardrock Processing Facility
- Preliminary Preferred Route

Existing Features

- Highway
- Watercourse



Notes

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Premier Pipeline Project
Cultural Heritage Assessment

Figure No.

2 - J

Title

Cultural Heritage Assessment Study Area Mapbook

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2.0 METHODOLOGY

2.1 REGULATORY REQUIREMENTS

The study methodology is broadly based on guidelines provided by MTCS within InfoSheet #5 (Government of Ontario 2006b). As discussed briefly in Section 1.0, the *OEB Environmental Guidelines* make provisions for the consideration of heritage resources in the pipeline development planning stage of the Project. The OEB Guidelines stipulate that pipeline proponents are responsible for demonstrating the appropriate level of due diligence regarding heritage resources. This involves both the identification of heritage resources and the assessment of impacts of the Project on these resources. According to the *OEB Environmental Guidelines*, due diligence should be exhibited by:

- Recognizing cultural heritage resources that may be affected by pipeline development, identifying significant cultural heritage resources and understanding their cultural heritage value or interest
- Assessing the effects or impacts that could result from proposed pipeline development
- Protecting cultural heritage resources by appropriate conservation, avoidance and mitigation

(OEB 2011:34)

In addition to requirements outlined in the OEB Guidelines provisions made under the revised 2014 *Provincial Policy Statement* (PPS) were also considered in the preparation of the study. Section 2.6 of the PPS addresses cultural heritage in the land use planning process and as such was considered. The applicable provisions include:

> *2.6.1 - Significant built heritage resources and significant cultural heritage landscapes shall be conserved.*
> *2.6.3 - Planning authorities shall not permit development and site alteration on adjacent lands to protected heritage property except where the proposed development and site alteration has been evaluated and it has been demonstrated that the heritage attributes of the protected heritage property will be conserved.*

(Government of Ontario 2014: 29)

In response to requirements outlined within Infosheet #5, the OEB Environmental Guidelines, and the PPS, Stantec has identified built heritage resources and cultural heritage landscapes; evaluated the impacts of the proposed undertaking on the resources and landscapes; and provided options to mitigate those impacts and to conserve protected properties, if applicable.

The CHAR was composed of a program of archival research focused on the Study Area. To familiarise the study team with the Study Area, local historical resources were consulted, archival documents were reviewed, and a summary of the historical background of the local area was prepared. Specifically, historical mapping was consulted to identify the presence of structures, settlements, and other potential heritage resources in advance of the field program.

2.2 MUNICIPAL AND AGENCY CONSULTATIONS

Listings of provincially and locally designated properties, districts and easements for each municipality were collected from the Municipality of Greenstone, the Ontario Heritage Trust (OHT), and the MTCS. Consultation with agencies and municipalities within which the Project is proposed was undertaken to determine the presence of designated, listed, or registered heritage properties within the Study Area. As discussed in Section 1.4**Error! Reference source not found.**, a property can be designated or listed under the *Ontario Heritage Act* as well as registered by a municipally. These properties are considered to be protected heritage properties and protected properties, respectively.

Recognition of protected properties varies greatly and is dependent on the level of cultural heritage value or interest identified or, in some cases, the level of investigation undertaken. For the purpose of this study, any property previously identified by municipal staff or provincial agencies as containing, or having the potential to contain, cultural heritage value or interest was determined to be a potential heritage property. Specific requirements pertaining to protected properties are described within the OEB Guidelines which emphasize that early identification allows the proponent to consider the impact the Project may have on protected heritage properties.

2.3 FIELD PROGRAM

A vehicular windshield survey was conducted by Stantec on July 18, 19 and 20, 2017 from publicly accessible roadways, unless specified otherwise. During the surveys, the Study Area was surveyed for potential heritage resources, including both potential built heritage resources and components of cultural heritage landscapes. Where identified, these were photographed and their locations recorded. Characteristics of each potential heritage resource were noted while in the field and their locations recorded. Both built heritage resources and cultural heritage landscapes were assigned a heritage resource number. Resources identified as a CHL are distinguished from built heritage resources in the evaluation forms.

In general, buildings and structures of more than 40 years of age were evaluated during the survey for their potential to satisfy O. Reg. 9/06 criteria. The use of the 40-year threshold is generally accepted by both the federal and provincial authorities as a preliminary screening measure for cultural heritage interest or value. This practice does not imply that all buildings and structures more than 40 years of age are inherently of significant heritage value, nor does it exclude exceptional examples constructed within the past 40 years of being of significant cultural heritage value.

2.4 EVALUATION OF CULTURAL HERITAGE VALUE OR INTEREST

The criteria for determining cultural heritage value or interest are defined by O. Reg. 9/06. While the language in O. Reg. 9/06 is specific to individual properties, it is accepted best practice that the criteria can be applied to a grouping of multiple properties during preparation of a CHAR (such as along a transportation corridor or in a neighbourhood) to determine the potential for the grouping of properties as a CHL. Where cultural heritage value or interest was identified, it was distinguished as being a type of built heritage resource (residence, commercial building, place of worship, etc.) or a CHL, assigned a

Heritage Resource (HR) number, and the property was determined to contain a heritage resource. Evaluations for each property are contained within **Appendix A**.

2.4.1 Ontario Regulation 9/06

In order to identify cultural heritage value or interest at least one of the following criteria must be met:

1. *The property has design value or physical value because it,*
    i. *is a rare, unique, representative or early example of a style, type, expression, material or construction method,*
    ii. *displays a high degree of craftsmanship or artistic merit, or*
    iii. *demonstrates a high degree of technical or scientific achievement.*
2. *The property has historical value or associative value because it,*
    i. *has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community,*
    ii. *yields, or has the potential to yield, information that contributes to an understanding of a community or culture, or*
    iii. *demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.*
3. *The property has contextual value because it,*
    i. *is important in defining, maintaining or supporting the character of an area,*
    ii. *is physically, functionally, visually or historically linked to its surroundings, or*
    iii. *is a landmark.*

(Government of Ontario 2006a)

2.5 ASSESSMENT OF PROJECT IMPACTS

Where a heritage resource was identified within or across the Study Area, an assessment of potential impacts resulting from the Project was undertaken. The assessment of potential impacts was undertaken according to InfoSheet #5. Seven potential negative impacts have been identified, including, but not limited to:

- *Destruction of any, or part of any, significant heritage attributes or features*
- *Alteration that is not sympathetic, or is incompatible, with the historic fabric and appearance*
- *Shadows created that alter the appearance of a heritage attribute or change the viability of a natural feature or plantings, such as a garden*
- *Isolation of a heritage attribute from its surrounding environment, context or a significant relationship*
- *Direct or indirect obstruction of significant views or vistas within, from, or of built and natural features*
- *A change in land use such as rezoning a battlefield from open space to residential use, allowing new development or site alteration to fill in the formerly open spaces*

- *Land disturbances such as a change in grade that alters soils, and drainage patterns that adversely affect an archaeological resource*

(Government of Ontario 2006b)

In addition to direct impacts related to destruction, this CHAR also evaluated the potential for indirect impacts resulting from the vibrations of construction and the transportation of Project components and personnel. Although the effect of traffic and construction vibrations on historic period structures is not fully understood, negative effects have been demonstrated on buildings with a setback of less than 40 metre from the curbside (Crispino and D'Apuzzo 2001; Ellis 1987; Rainer 1982; Wiss 1981). The proximity of Project components to heritage resources was considered in this assessment, particularly those within 50 metres, to encompass a wide enough buffer zone to employ a conservative approach to impact assessment.

2.6 MITIGATION STRATEGIES

Mitigation strategies were prepared based on guidelines provided by both the MTCS and the OEB. The MTCS suggest methods of minimizing or avoiding negative direct or indirect impacts including, but not limited to:

- Alternative development approaches
- Isolating development and site alteration from significant built and natural features and vistas
- Design guidelines that harmonize mass, setback, setting, and materials
- Limiting height and density
- Allowing only compatible infill and additions
- Reversible alterations
- Buffer zones, site plan control, and other planning mechanisms.

(Government of Ontario 2006b)

In the case of pipeline projects, as discussed in more detail in Section5.4, buffer zones and site plan controls are often the most appropriate method of mitigation when used in combination with alternative development approaches.

3.0 HISTORICAL DEVELOPMENT

3.1 INTRODUCTION

The Study Area is located in Northern Ontario, within the Municipality of Greenstone, and passes through the community of Geraldton (Figure 1). This portion of Northern Ontario was not surveyed into counties or townships with concessions and lots. As a result, the Study Area is not located within these categories of land organization.

3.2 PHYSIOGRAPHY

The Project is situated within the “Canadian Shield” physiographic region which covers 32% of Canada. Approximately half of the Shield is classified as upland and extends from northwestern Quebec through Northern Ontario; Manitoba; Saskatchewan; southern Nunavut to northwestern mainland Nunavut and the eastern Mackenzie districts; and the Northwest Territories. The shield is composed of crystalline Precambrian rocks formed during several phases of mountain building between four and one billion years ago (Kemp 2015). This region contains rivers and lakes which account for 22% of Canada’s freshwater surface area (Royal Canadian Geographical Society 2013). The physiography of the region has provided for extensive resource extraction. With ample bodies of water to facilitate transportation, the ample natural resources such as gold, silver, lumber, and fur have been extracted from the region throughout its history.

3.3 SURVEY AND SETTLEMENT

Until 1870, the Study Area was part of the extensive territory known as Rupert’s Land. This territory was granted by charter in 1670 to the Hudson’s Bay Company (HBC) by Charles II. The charter gave the HBC exclusive commercial control of the Hudson Bay watershed. The HBC established a network of forts and trading posts to facilitate their endeavor. The closest post to the Study Area was the Long Lake post, in Long Lac, about 30 kilometres to the east (Hudson’s Bay Company Archives 2017). The Long Lake post was opened in 1814 and served as a relay post between Red River and Moose Factory (Ontario’s Historical Plaques 2006). The Long Lake post would continue to serve as the main hub of commercial activity in the area until the founding of Geraldton in 1934.

The creation of the Dominion of Canada and the sale of Alaska to the United States in 1867 made the idea of a private company holding on to Rupert’s Land increasingly unappealing to colonial officials in the United Kingdom. Prime Minister John A. MacDonald expressed his interest in purchasing Rupert’s Land from the HBC and incorporating it into Canada. However, the HBC valued their land at $40,000,000, a sum the fledgling Dominion could not raise. To block the possibility of the United States purchasing Rupert’s Land, the British government persuaded the HBC to begin negotiations with Canada and a deal was reached in 1869. Canada would pay $1.5 million for the territory and allow the HBC to retain ownership of its extensive network of trading posts and 5% of the land. The transfer became effective July 15, 1870 (Smith 2006).

The first surveys of the Lake Nipigon and Long Lake portion of the Canadian Shield took place in 1869-1870 to determine potential routes for a transcontinental railroad. The Geological Survey of Canada dispatched Robert Bell to conduct this survey. He spent the summer of 1870 based out of the Long Lake HBC post to study the area "…in reference to their bearing on the construction of the proposed Canadian Pacific Railway" (Lavoie 1987: 15). The harsh terrain of the Canadian shield delayed any attempts to begin construction. In 1871, British Columbia entered Confederation partially on the condition a railway be built that linked the east and west parts of the Dominion. The easiest path for such a proposition routed a portion of the railway through the United States to avoid the Canadian Shield. However, John A. MacDonald lobbied strongly for the route to be entirely Canadian (Lavoie 1987: 15).

In 1871, Sanford Fleming was appointed engineer-in-chief for the Canadian Pacific Survey and was tasked with finding the best route for the railway through the arduous Canadian Shield. Surveys were conducted in 1872 and 1873 and determined a route hugging Lake Superior would be the most feasible. The Canadian Pacific Scandal of 1873 delayed construction of the railway until 1880 (Waite 2006). Construction finally commenced in the 1880s, and the route through the Canadian Shield ran far south of the Study Area along Lake Superior. This decision would delay potential development of the Study Area until the 20th century.

3.4 20TH CENTURY DEVELOPMENT

At the start of the 20th century, the lack of a railway line through the Study Area curtailed any potential for significant development. The nearest town was Port Arthur (present day Thunder Bay), about 290 km away. A government survey of the Long Lake and Little Long Lake districts in 1900 reported no mineral resources in the area, but stated the potential for settlement if a railway was constructed through the region (Lavoie 1987: 17-18).

In 1914, the Canadian Northern Railway was constructed from Sudbury to Port Arthur (Skelton 1916: 188) and ran through the Study Area. The discovery of gold in parts of Northwestern Ontario in the early 1920s led prospectors to scrutinize the area around the Canadian Northern Railway for mineral wealth (Lavoie 1987: 18). Reports of many minerals, including traces of gold deposits, were documented by various explorers and surveyors.

In August 1931, Bill "Hardrock" Smith arrived in the area to search for mineral wealth on behalf of the Hard Rock Prospecting Syndicate based out of Toronto. While exploring Kenogamsis Lake, Smith and his partner made several major discoveries of gold. Realizing the importance of his find, he trekked back to Long Lake and sent a letter to the syndicate via the postal service, since a telegraph message was considered too susceptible to interception (Lavoie 1987: 26). The letter dated August 17, 1931 outlined 18 claims that Smith and Watson staked upon discovery of three veins approximately four miles south of the CNR line (Lavoie 1987: 27). Following positive test results for gold, mining in the region commenced. The first operational mine was the Little Long Lac mine.

Little Long Lac Gold Mines, Ltd. was incorporated in February 1933 and its officers were Joseph Errington, S.J. Fitzgerald, L.A. MacDonald, D.M. Morrin, A.B. Gordon, and Percy Hopkins. The company owned 33 claims on the south shore and west part of Kenogamsis Lake. Mining began in March 1933

with 53 workers, 19 of them working underground. The mine produced consistent results and by 1934 employed 142 men and had a market valuation of nearly $14 million dollars (Lavoie 1987: 46-67).

3.4.1 The Development of Geraldton

Supplies for the budding mines were simply deposited by the train and dragged to the appropriate work site. Soon, a boxcar was used as an informal train station at the site. A hotel quickly followed. The hotel cost $40,000 and had 34 rooms. Every furnishing and building material had to be shipped from 290 km away (Lavoie 1987: 65).

A town site was surveyed in early 1934 by Ontario land surveyor L. Mooney (Plate 1). The town was named Geraldton after S.J. Fitzgerald and J. Errington, two mining executives from the Sudbury Diamond Drilling Company. By the end of 1934 Geraldton boasted a café, general store, barber, hotel, lumber company, law office and Royal Bank Branch. Already, 200 residents lived in the town (Lavoie 1987: 64).

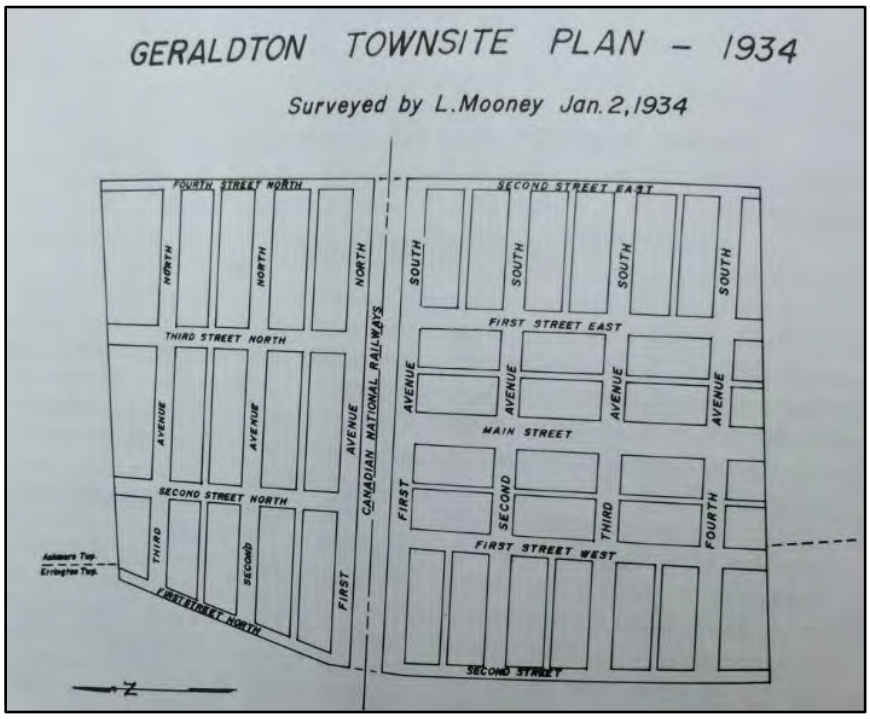


Plate 1: Geraldton Townsite Plan (Lavoie 1987: 58)

Geraldton experienced impressive growth in these early years. In August 1937, the Geraldton Chamber of Commerce met with the Municipal Board of Ontario to incorporate Geraldton as a town. The new town would incorporate 950 acres (Globe and Mail 1937a). By the end of 1937 Geraldton had a population of 2,000. Nine gold mines in the area had an annual revenue of $7,000,000. The town was the largest and fastest growing in Ontario's northwest. There were 240 residences and 150 other buildings, assessed at nearly $1,000,000. The town had a brand new $75,000 department store, taxis, three hotels, three

churches, two banks, and a fire proof theatre. The Globe and Mail compared the new town to Dawson in the Yukon, but expected it to prosper perpetually because of the vast quantity of gold (Globe and Mail 1937b). The town was electrified in February 1937 and phone service arrived in March 1937 (Lavoie 1987: 142) (Plate 2). The demand for schooling swamped the small town and by the time the first school house was completed, it was deemed overcrowded.



Plate 2: Main Street, Geraldton, 1937. Looking North from 3rd Avenue (Source: Greenstone Public Library, Geraldton Branch)

Rapid development continued through 1938 and the town reached a population of 2,500. A nine-hole golf course was opened on the outskirts of town in 1938 and was designed by renowned golf course architect Stanley Thompson. The Globe and Mail reported “Geraldton is another outstanding example of what mining does for Ontario” (Norman 1938).

One major drawback of Geraldton during the 1930s was its dependence on the railroad. No roadway existed between the town and the rest of Canada. Roadwork to link Geraldton to Thunder Bay commenced in 1938. However, the start of the Second World War delayed completion. Since the road was 80% complete, construction continued, despite an Ontario government policy barring highway construction during the war. The route from Beardmore to Geraldton was opened in September 1940. A celebration event included two convoys of cars, one from Geraldton, and one from Thunder Bay meeting along the new highway (Lavoie 1987: 284-285).

The eastern link from Geraldton to Hearst still needed to be completed. Because of wartime restrictions, prisoners were utilized to clear and grade part of the over 160 km right of way. The prisoners were

dispersed in three camps of 150. The use of prison labor served the dual purpose of affordably completing the highway and alleviating provincial prison overcrowding (Globe and Mail 1940). The road was completed in June 1943 with a mix of contract and prison labor. Due to the ongoing war, the road was opened with no ceremony or fanfare (Lavoie 1987: 289, Globe and Mail 1943). It was now possible to drive from one end of Canada to the other, and Geraldton was along this route. Route 11 remained the primary route of the Trans-Canada Highway until the completion of Route 17 in 1960.

Most of the residences in the Study Area date to the post-war period. Some of the older residences were replaced with newer construction. The post-war period marked a decline in gold production in the region. By 1968, all but one of the 14 gold mines had ceased production. Rising production costs made the operation of the mines unprofitable. From 1967-1968, 400 people left Geraldton, dropping the population to 3,200. The only other major employer in Geraldton was the forestry industry (Wills 1968).

In 1998, the Town of Geraldton, along with Long Lac, Beardmore, and Nakina tried to incorporate into one large municipality called Greenstone. The Ontario General Division Courts struck down the restructuring plan, dismissing it as a 'tax grab.' (Claridge 1998). Despite this set back, the Municipality of Greenstone was formed January 1, 2001. As of 2016, the population of Geraldton is 1,828 (Statistics Canada 2016).

3.4.2 Rosedale Point

The portion of the Study Area south of Kenogamsis Lake is known as Rosedale Point. The neighbourhood was established by Little Long Lac Gold Mines Limited east of the mining site. Housing constructed in Rosedale Point housed company executives (Lavoie 1987: 51). Therefore, some of the homes in this portion of the Study Area are more ornate. The area also contained the first hospital in the area and an arena that opened in the 1930s (Griffin 1938). The hospital was closed in the 1980s and the arena has been repurposed into a commercial space.

4.0 RESULTS

4.1 AGENCY AND MUNICIPAL CONSULTATION

In order to identify heritage resources, the MTCS, OHT, and the Municipality of Greenstone were consulted. No properties within the Study Area were identified as protected heritage properties.

At the provincial level, Deborah Hossack, Heritage Advisor, Registrar Developer, with the MTSC reported that there were no properties on the List of Provincial Heritage Properties within the vicinity of the Study Area. Jeremy Collins, Acquisitions Coordinator with the OHT, confirmed that there are no conservation easement sites within the Study Area.

At the municipal level, staff was consulted to determine the presence of any protected properties. Steve Mykulak, Planner, with the Municipality of Greenstone confirmed that there are no properties of heritage interest within the Study Area.

4.2 FIELD PROGRAM

4.2.1 Potential Heritage Resources

As described in Section2.3, a windshield survey of the Study Area was undertaken to identify potential heritage resources situated within the Study Area and confirm the presence of previously identified protected properties. Where identified, the site was photographically documented from publicly accessible roadways.

During the course of the survey, a total of 211 individual sites were identified as containing potential heritage resources (Figure 3). Of those identified, none had been previously recognized by municipal heritage staff as being designated under Part IV of the *Ontario Heritage Act.* The proposed pipeline runs mostly within the municipal RoW from the Enbridge Gas Valve Site located 3.5 km north of Geraldton, through a rural forested section towards the town (Plate 3). Within Geraldton, the proposed line runs adjacent to residential, commercial, and religious structures (Plate 4 and Plate 5). South of Geraldton, the proposed pipeline runs southwest along Arena Road and terminates at the planned GGM processing facility south of the Trans-Canada Highway 11.

Streetscapes within the Study Area consist of late 20th century forested sections along Highway 584, residential streetscapes with mid-19th century resources, parts of the 20th century commercial streetscape in the downtown core, and remnants of the initial settlement of Geraldton and association with the nearby mine (Plate 6).

The majority of the potential heritage resources identified were constructed in the mid to late 20th century, while the remaining properties were constructed in the early to mid-20th century. More specifically, the majority of the residences were constructed between the 1950s and 1970s, and are of a similar mid-century vernacular architecture style. They display a similar one storey massing, a gable roof, modern siding or concrete asbestos siding and a concrete foundation (Appendix A).



Plate 3: View of Highway 584 looking southeast



Plate 4: View of Third Street North looking northeast



Plate 5: View of Third Street North looking north



Plate 6: View of Arena Road looking west

4.2.2 OEB Guideline Indicators

Based on the field program, resources representing three of the indicators of cultural heritage value or interest according to Section 4.3.4 of the OEB Guidelines were identified (see Table 1). Where potential heritage resources are identified, evaluation of the cultural heritage value or interest according to O. Reg.

9/06 is required to confirm the presence of heritage resources. Where heritage resources are identified, the impacts of the Project on these resources must be assessed.

Table 1: Indicators of CHIV According to Section 4.3.4 of the OEB Guidelines

Indicators	Identified within the Study Area
Property designated under Part IV of the *Ontario Heritage Act*	Not identified
A bridge on Ontario Heritage Bridge List	Not identified
Property within a Heritage Conservation District designated under Part V of the Ontario Heritage Act	Not identified
Property with an Ontario Heritage Trust or municipal heritage conservation easement	Not identified
Property with a provincial or federal plaque	Not identified
A National Historic Site	Not identified
Property containing a registered archaeological site	Not Applicable*
Property with archaeological potential	Not Applicable*
Property listed on a municipal heritage register or provincial heritage register	Not identified
Property adjacent to an identified heritage property	Not identified
Property that has buildings or structures over 40 years old	*Identified*
Property within a Canadian Heritage River watershed	Not identified
Property associated with a renowned architect or builder	Not identified
Property containing or adjacent to a burial site or cemetery	Not identified
Parkland	Not identified
Land with distinctive landforms or geographic features	Not identified
Historic transportation corridors (such as navigational canals, rail lines or trails, traditional Métis portage routes etc.)	*Identified*
Other human-made alterations to natural landscapes (such as earthworks, plantings, etc.)	Not Identified

*An Archaeological Assessment has been undertaken under separate cover. Archaeological potential is considered beyond the scope of the current study

4.3 EVALUATION OF CULTURAL HERITAGE VALUE OR INTEREST

Where a potential heritage resource was identified within the Study Area, an evaluation of the cultural heritage value or interest of the property was undertaken. Detailed evaluations are contained within Appendix A. As described in Section 2.4, each potential heritage resource was evaluated according to O. Reg. 9/06, the criteria for determining cultural heritage value or interest. There were 211 potential heritage resources identified, 14 of which were determined to contain heritage resources (Figure 3). Table 2 summarizes the findings.

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
1025 Highway 584	No	Other		None Identified	No	N/A	Within the Study Area
1 The Olde Road	No	Residence		None Identified	No	N/A	Within the Study Area
798 French Hill Road	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
311 Third Street North	No	Residence		None Identified	No	N/A	Within the Study Area
309 Third Street North	No	Residence		None Identified	No	N/A	Within the Study Area
307 Third Street North	No	Residence		None Identified	No	N/A	Within the Study Area
102 Third Avenue Northeast	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
100 Third Avenue Northeast	No	Residence		None Identified	No	N/A	Within the Study Area
213 Third Street North	No	Residence		None Identified	No	N/A	Within the Study Area
105 Third Avenue Northeast	No	Residence		None Identified	No	N/A	Within the Study Area
211 Third Street North	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
205 Third Street North	No	Residence		None Identified	No	N/A	Within the Study Area
103 Second Avenue Northeast	No	Residence		None Identified	No	N/A	Within the Study Area
109 Third Street North	No	Commercial Building		None Identified	No	N/A	Within the Study Area
107 Third Street North	No	*Commercial Building*		Commercial building: Two storey, low-pitched gable roof, brick exterior, quoins, projecting entrance overhang, and asymmetrical front entrance.	*Yes*	*HR-1*	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
108 First Avenue Northwest	No	Commercial Building		None Identified	No	N/A	Within the Study Area
Former Railway Line (Between Highway 584/Main Street and Fourth Street North)	No	*Other—Former Railway Line*		*Trail: Right of way of the former Canadian National Railway line.*	*Yes*	*HR-2*	Within the Project Location
103 Fourth Street	No	Residence		None Identified	No	N/A	Within the Study Area
105 Fourth Street	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
109 Fourth Street	No	Residence		None Identified	No	N/A	Within the Study Area
201 Fourth Street	No	Residence		None Identified	No	N/A	Within the Study Area
215 Fourth Street	No	Residence		None Identified	No	N/A	Within the Study Area
213 Second Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
211 Second Street East	No	Residence		None Identified	No	N/A	Within the Study Area
207 Second Avenue Southeast	No	Residence		Residence: One storey structure, front facing gable roof, horizontal wood siding, projecting entrance porch, wood tracery in gable peak, and 3/1 wood windows.	*Yes*	HR-3	Within the Study Area
205 Second Avenue Southeast	No	Residence		None Identified	No	N/A	Within the Study Area
203 Second Avenue Southeast	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
110 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
112 First Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
202 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
204 First Street South	No	Residence		None Identified	No	N/A	Within the Study Area
208 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
300 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
302 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
304 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
306 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
310 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
109 Fourth Avenue Southeast	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
111 Fourth Avenue Southeast	No	Residence		None Identified	No	N/A	Within the Study Area
202 Fourth Avenue Southeast	No	Residence		None Identified	No	N/A	Within the Study Area
204 Fourth Avenue Southeast	No	Residence		None Identified	No	N/A	Within the Study Area
402 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
404 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
406 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
1405 Main Street	No	Residence		None Identified	No	N/A	Within the Study Area
1409 Main Street	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
1501 Main Street	No	Commercial Building		None Identified	No	N/A	Within the Study Area
1114 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
1116 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
1118 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
1120 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
1124 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
1128 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
1130 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
1200 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
1202 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
1206 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
1208 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
1210 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
1214 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
1218 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
1220 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
1222 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
110 Greer Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
109 Greer Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
1326 Main Street	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
501 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
503 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
505 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
507 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
511 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
513 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
517 First Street East	No	Residence		Residence: One storey structure, medium-pitched gable roof, horizontal wood siding, symmetrical front elevation, wood window surrounds, half glass wood paneled entrance door, and 3/1 wood windows.	*Yes*	*HR-4*	Within the Study Area
519 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
523 First Street East	*Yes*	*Church*		Church: One storey structure, high-pitched front facing gable roof, tower with onion dome, cross, and louvred wood blind windows, round headed windows, and a full front porch.	*Yes*	*HR-5*	Within the Study Area
601 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
109 Beamish Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
107 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
614 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
616 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
622 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
110 Barton Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
107 Barton Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
712 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
714 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
718 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
722 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
106 Wardrope Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
109 Wardrope Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
810 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
818 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
110 McKenzie Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
108 McKenzie Avenue East	No	Residence		Residence: One storey structure, low-pitched hip roof, gabled dormer, brick chimney, horizontal wood siding, 1/1 wood windows, and partial wood entrance porch with pediment.	*Yes*	*HR-6*	Within the Study Area
106 McKenzie Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
107 McKenzie Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
109 McKenzie Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
910 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
914 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
912 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
918 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
920 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
922 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
106 Clarke Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
107 Clarke Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
109 Clarke Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
1010 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
1014 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
1016 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
1018 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
1020 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
1026 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
104 Second Avenue Northwest	No	Church		Church: Steeply pitched gable roof, wide eaves, buff brick exterior, bell tower, decorative brick banding	Yes	*HR-7*	Within the Study Area
100 Third Avenue Northwest	No	Commercial Building		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
306 Third Street North	No	Residence		None Identified	No	N/A	Within the Study Area
104 Second Avenue Northwest (Parish Office and Church)	No	*Other—Parish Office*		Parish building: Two storey structure, medium-pitched hip roof, and symmetrical front elevation.	*Yes*	*HR-8*	Within the Study Area
108 Second Street North	No	Residence		None Identified	No	N/A	Within the Study Area
106 Third Avenue Northwest	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
207 Second Street North	No	Residence		None Identified	No	N/A	Within the Study Area
105 Second Avenue Northwest	No	Residence		None Identified	No	N/A	Within the Study Area
104 First Avenue Northwest	No	*Civic Building*		*Commercial Building: two storey structure, flat roof, red brick exterior*	*Yes*	*HR-9*	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
104 First Avenue Northeast	No	Commercial Building		None Identified	No	N/A	Within the Study Area
101 Second Street East	No	Residence		None Identified	No	N/A	Within the Study Area
107 Second Street East	No	Residence		None Identified	No	N/A	Within the Study Area
111 Second Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
214 Second Avenue Southeast	No	Residence		None Identified	No	N/A	Within the Study Area
212 Second Avenue Southeast	No	Residence		None Identified	No	N/A	Within the Study Area
206 Second Avenue Southeast	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
204 Second Avenue Southeast	No	Residence		None Identified	No	N/A	Within the Study Area
202 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
201 Second Avenue Southeast	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
108 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
106 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
111 Second Avenue Southeast	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
200 Third Avenue Southeast	No	Residence		None Identified	No	N/A	Within the Study Area
201 Third Avenue Southeast	No	Residence		None Identified	No	N/A	Within the Study Area
203 Fourth Avenue Southeast	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
401 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
510 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
405 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
409 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
411 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
419 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
417 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
201 Fourth Avenue Southeast	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
108 Hogarth Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
111 Hogarth Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
410 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
408 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
540 Michael Power Boulevard	No	Residence		Residence: two storey structure, hip roof, foursquare plan.	Yes	HR-10	Within the Study Area
536 Michael Power Boulevard	No	Commercial Building		None Identified	No	N/A	Within the Study Area
124 Arena Road	No	*Commercial Building*		*Commercial Building: gambrel roof, ventilators*	*Yes*	*HR-11*	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
1 Rosedale Point	No	*Residence*		Residence: One storey structure, medium-pitched front facing gable roof, horizontal wood siding, front enclosed entrance with gable roof, and 8 pane fixed windows.	*Yes*	*HR-12*	Within the Study Area
6 and 8 Rosedale Point	No	Residence		Residence: Two storey structure, medium-pitched hip roof, central gabled dormer, and symmetrical front elevation.	*Yes*	*HR-13*	Within the Study Area
545 Michael Power Boulevard	No	Residence and Commercial Building		None Identified	No	N/A	Within the Study Area
543 Michael Power Boulevard	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
1710 Main Street	No	Residence		None Identified	No	N/A	Within the Study Area
1510 Main Street	No	Commercial Building		None Identified	No	N/A	Within the Study Area
1400 Main Street	No	Commercial Building		None Identified	No	N/A	Within the Study Area
1327 Main Street	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
1705 Main Street	No	Residence		None Identified	No	N/A	Within the Study Area
109 Benner Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
111 Benner Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
111 Greer Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
312 Benner Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
1318 Benner Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
110 Benner Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
108 Benner Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
107 Benner Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
122 John Avenue	No	Residence		None Identified	No	N/A	Within the Study Area
117 John Avenue	No	Residence		None Identified	No	N/A	Within the Study Area
114 John Avenue	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
112 John Avenue	No	Residence		None Identified	No	N/A	Within the Study Area
110 John Avenue	No	Residence		None Identified	No	N/A	Within the Study Area
109 Hogarth Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
512 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
514 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
516 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
518 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
522 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
108 Beamish Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
106 Beamish Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
111 Beamish Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
610 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
612 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
618 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
620 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
624 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
106 Barton Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
111 Barton Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
716 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
720 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
110 Wardrope Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
111 Wardrope Avenue East	No	Commercial Building		None Identified	No	N/A	Within the Study Area
812 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
822 First Street East	No	Residence		None Identified	No	N/A	Within the Study Area
202 McKenzie Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
204 McKenzie Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
203 McKenzie Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
200 Jackson Avenue	No	Residence		None Identified	No	N/A	Within the Study Area
205 Jackson Avenue	No	Residence		None Identified	No	N/A	Within the Study Area

Table 2: Summary of Determination of CHVI

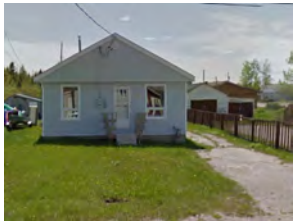
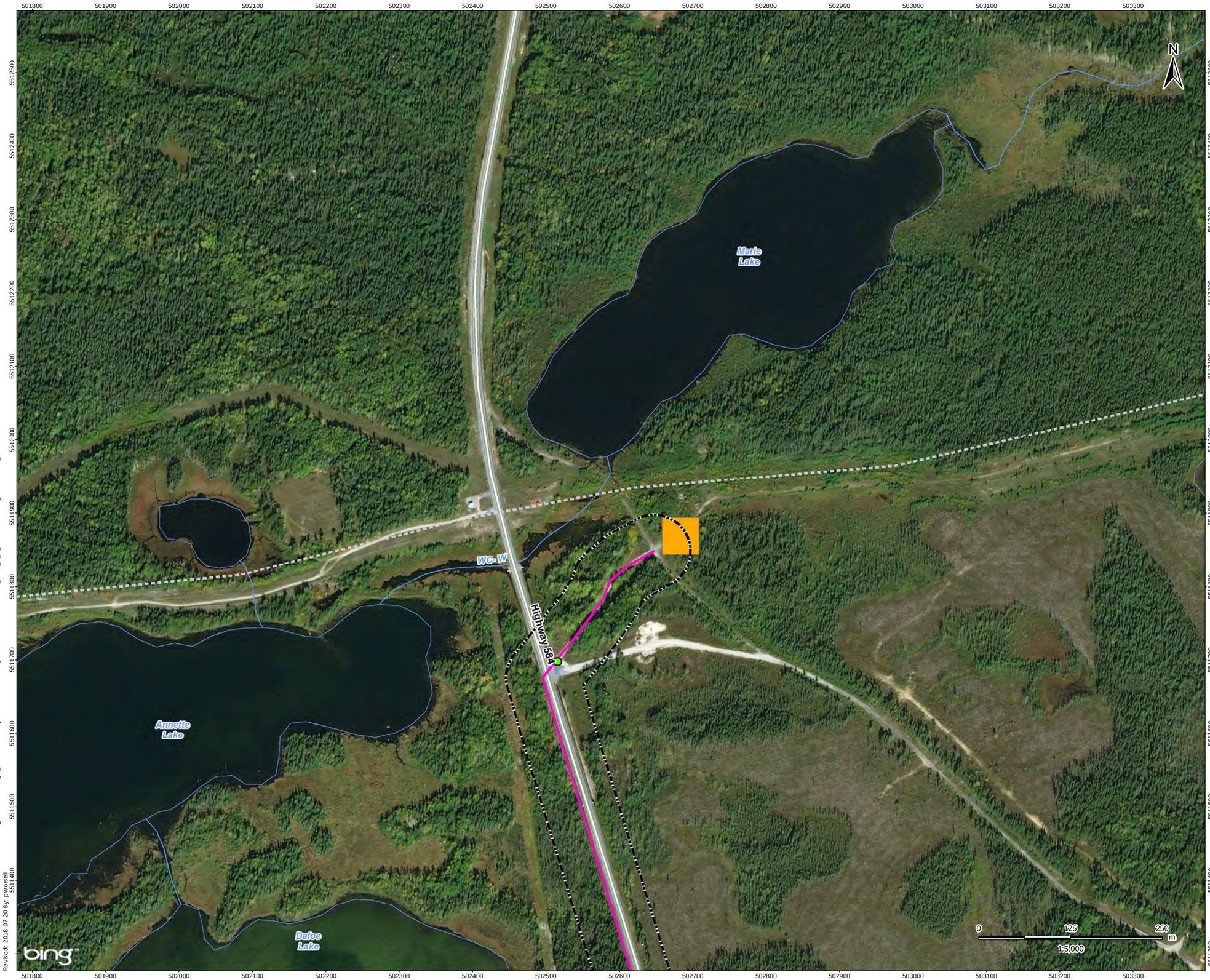
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201 Jackson Avenue	No	Residence		None Identified	No	N/A	Within the Study Area
200 Clarke Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
207 Clarke Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
205 Clarke Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area

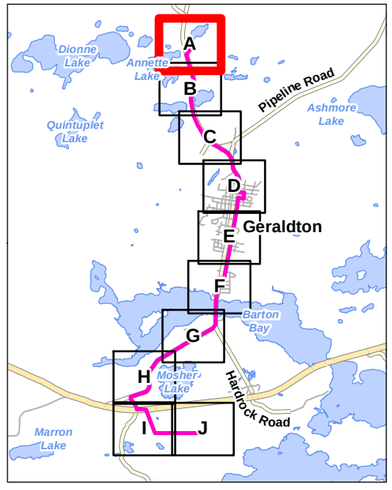
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Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
201 Clarke Avenue East	No	Residence		None Identified	No	N/A	Within the Study Area
210 Second Avenue Southeast	No	Residence		None Identified	No	N/A	Within the Study Area
N/A—Highway 584 streetscape	No	Streetscape		None Identified	No	N/A	Within Project Location
N/A—Commercial Geraldton Streetscape	No	Streetscape		None Identified	No	N/A	Within Project Location

Table 2: Summary of Determination of CHVI

Municipal Address	Previous Heritage Recognition	Resource Type	Photo	Identified Attributes	CHVI (Yes/No)	Heritage Resource (HR) Number	Relationship to Project
N/A—Residential Geraldton Streetscape	No	Streetscape		None Identified	No	N/A	Within Project Location
N/A—Rosedale Point Streetscape	No	Streetscape		Streetscape: Residential and commercial buildings that date to the initial settlement of Geraldton	Yes	HR-14	Within the Study Area





Stantec

Legend

- Cultural Heritage Study Area
- Existing Union Gas Station
- Preliminary Preferred Route
- Potential Heritage Resource

Existing Features

- Major Road
- Trans Canada Pipeline
- Watercourse
- Waterbody

Notes

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Client/Project

Enbridge Gas Inc.
Premier Pipeline Project
Cultural Heritage Assessment

Figure No.

3 - A

Title

Potential Heritage Resources

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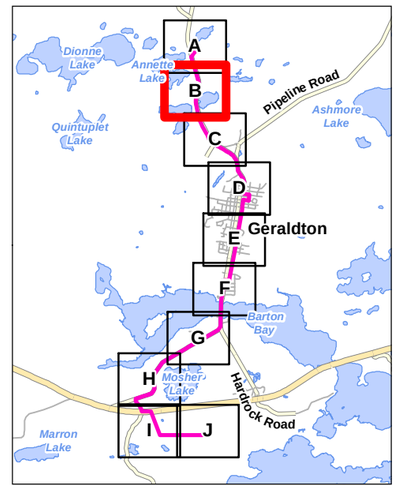
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Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route

Existing Features

- Major Road
- Watercourse
- Waterbody



Notes

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Client/Project

Enbridge Gas Inc.
Premier Pipeline Project
Cultural Heritage Assessment

Figure No.

3 - B

Title

Potential Heritage Resources

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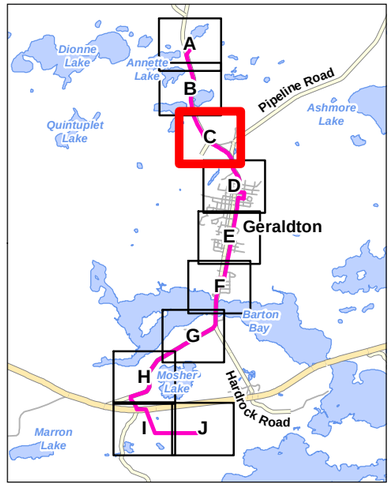
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Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route
- Potential Heritage Resource

Existing Features

- Major Road
- Local Road
- Watercourse
- Waterbody



Notes

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Cultural Heritage Assessment

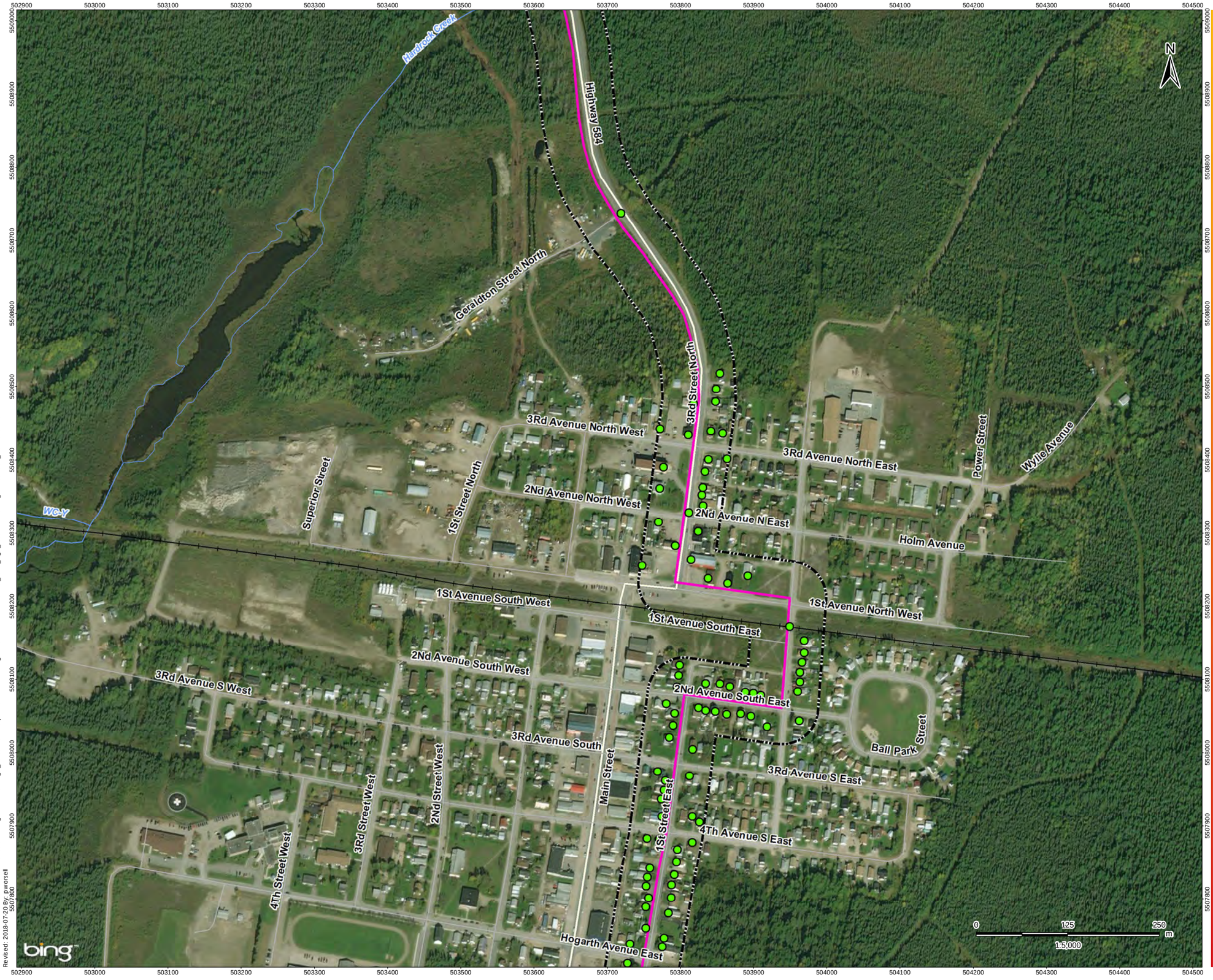
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3 - C

Title

Potential Heritage Resources

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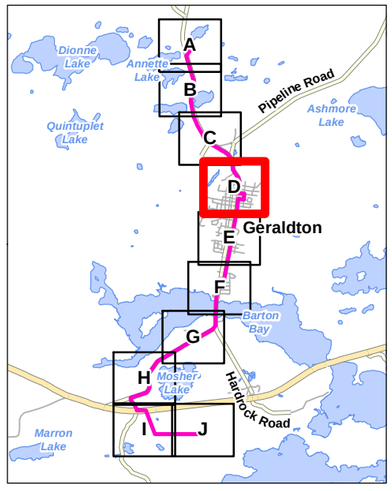


Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route
- Potential Heritage Resource

Existing Features

- Major Road
- Local Road
- Railway
- Watercourse
- Waterbody



Notes

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Cultural Heritage Assessment

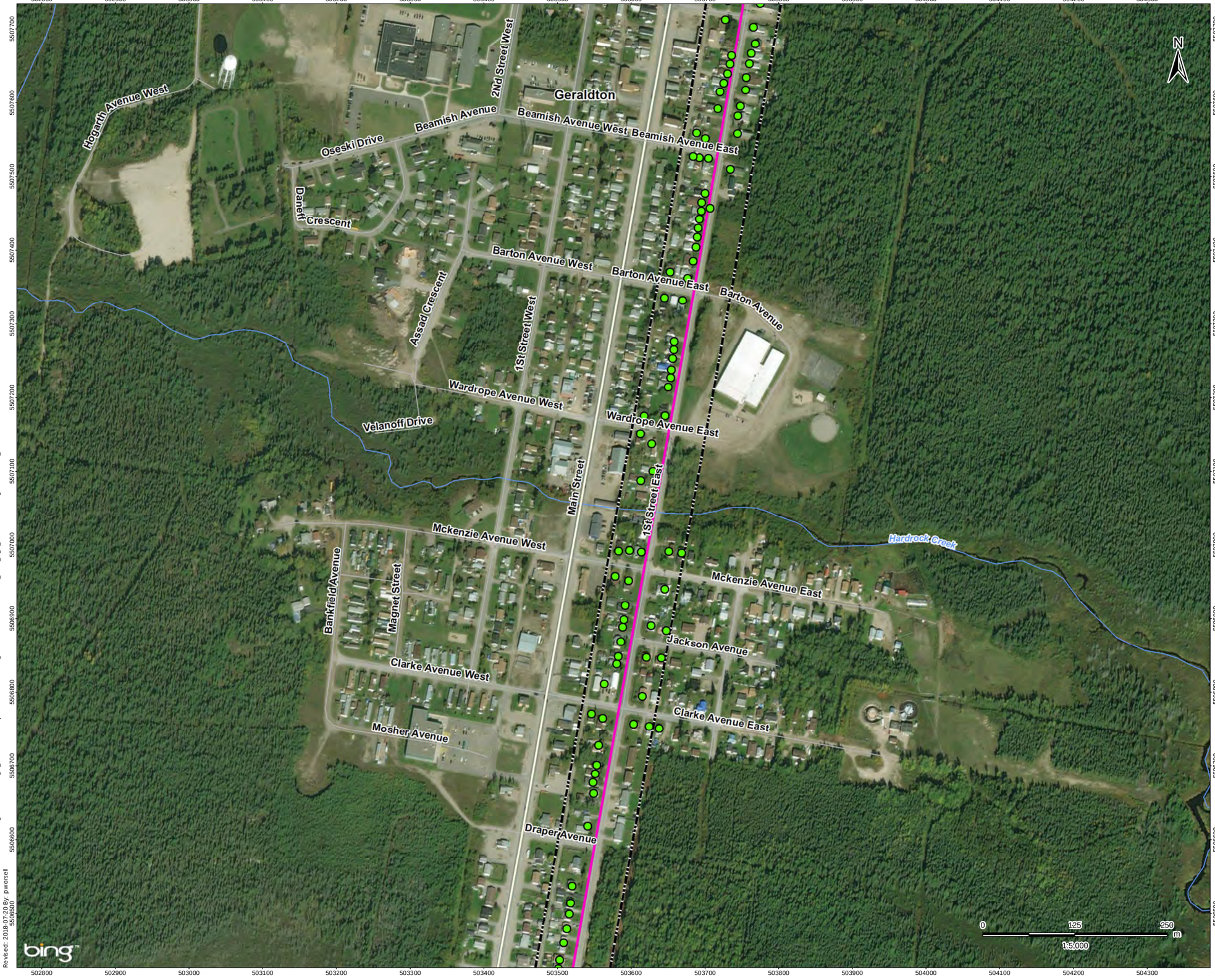
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3 - D

Title

Potential Heritage Resources

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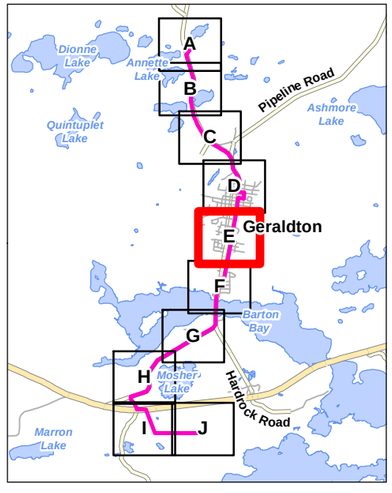
Stantec

Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route
- Potential Heritage Resource

Existing Features

- Major Road
- Local Road
- Watercourse



Notes

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Client/Project

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Premier Pipeline Project
Cultural Heritage Assessment

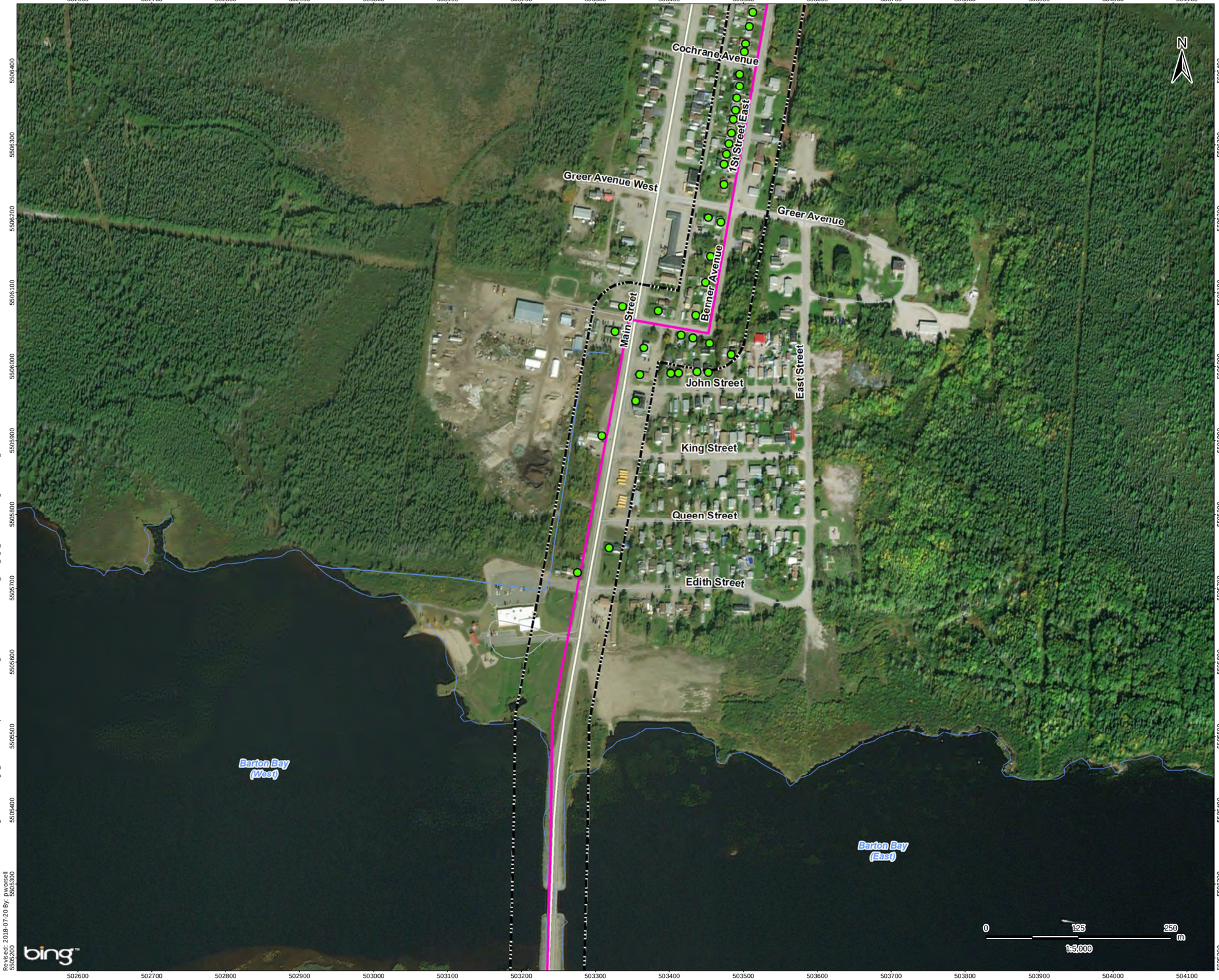
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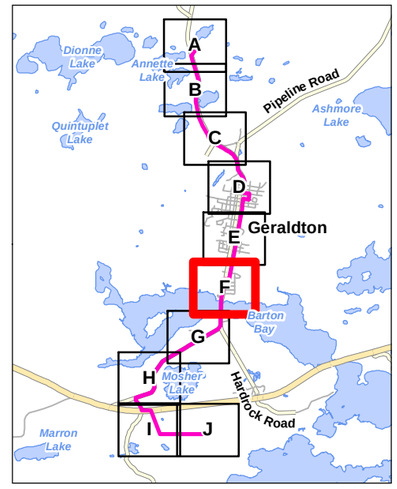
3 - E

Title

Potential Heritage Resources

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Revised: 2018-07-20 By: pworsell





Stantec

Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route
- Potential Heritage Resource

Existing Features

- Major Road
- Local Road
- Watercourse
- Waterbody

Notes

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160960975

Client/Project

Enbridge Gas Inc.
Premier Pipeline Project
Cultural Heritage Assessment

Figure No.

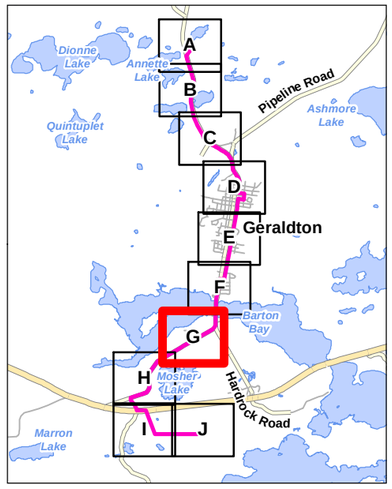
3 - F

Title

Potential Heritage Resources

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Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route
- Potential Heritage Resource

Existing Features

- Major Road
- Local Road
- Watercourse
- Waterbody

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Cultural Heritage Assessment

Figure No.

3 - G

Title

Potential Heritage Resources

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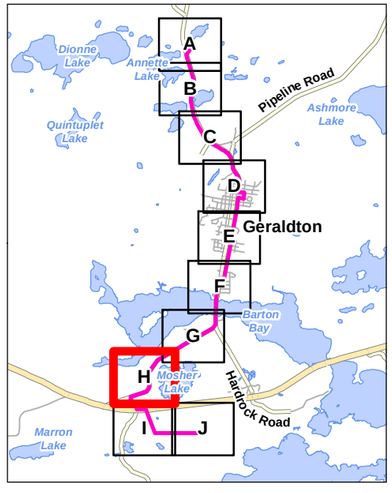
Stantec

Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route

Existing Features

- Major Road
- Watercourse
- Waterbody



Notes

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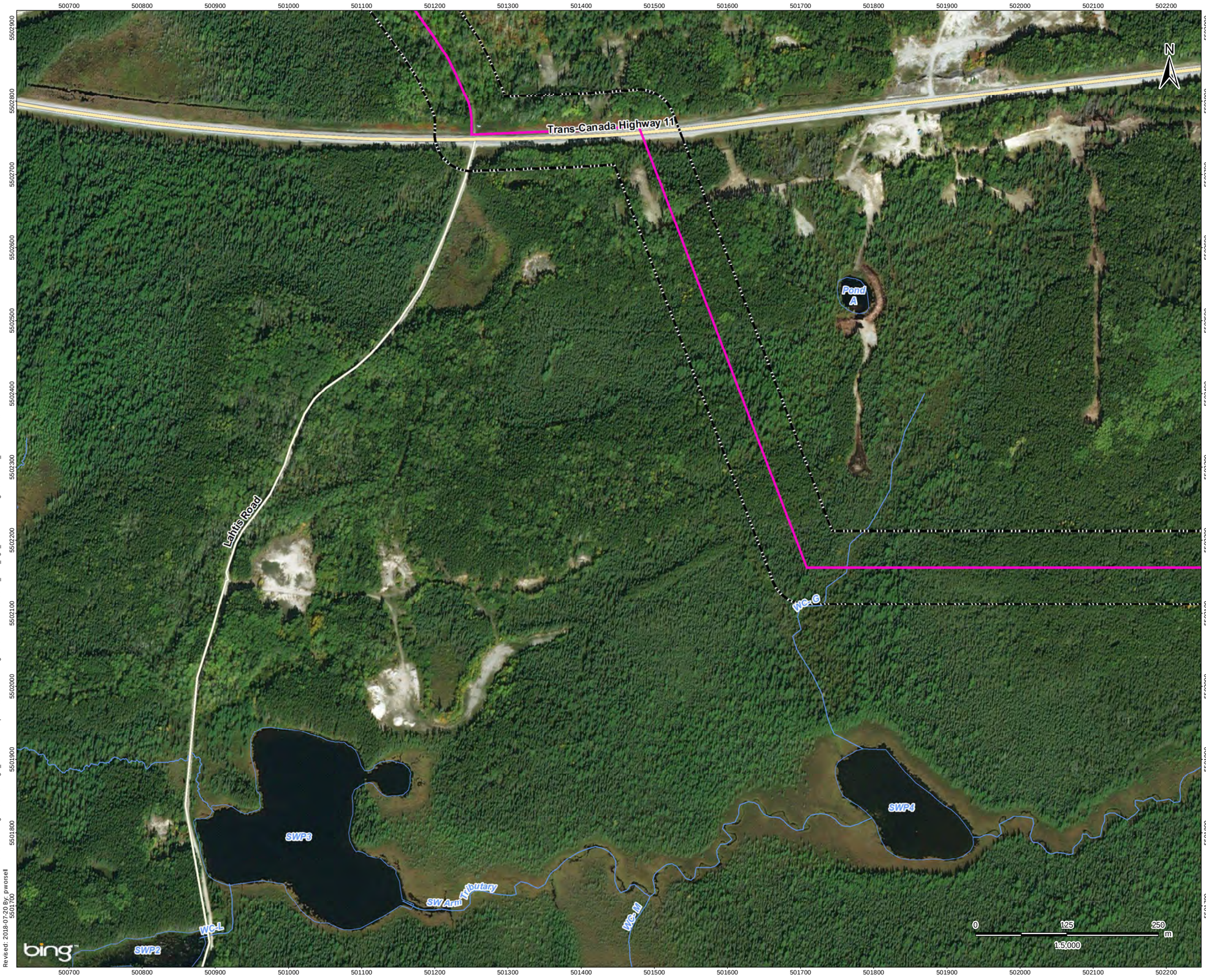
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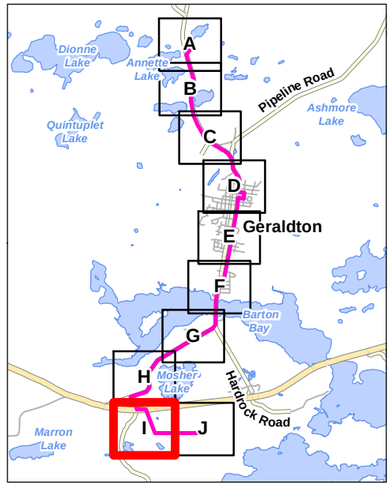
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Title

Potential Heritage Resources

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Stantec

Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route

Existing Features

- Highway
- Major Road
- Watercourse
- Waterbody

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Figure No.

3 - I

Title

Potential Heritage Resources

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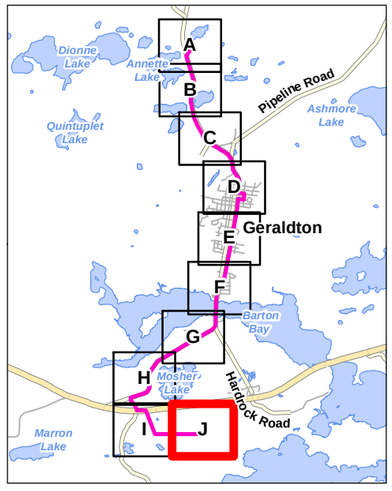
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Legend

- Cultural Heritage Study Area
- Proposed Hardrock Processing Facility
- Preliminary Preferred Route

Existing Features

- Highway
- Watercourse



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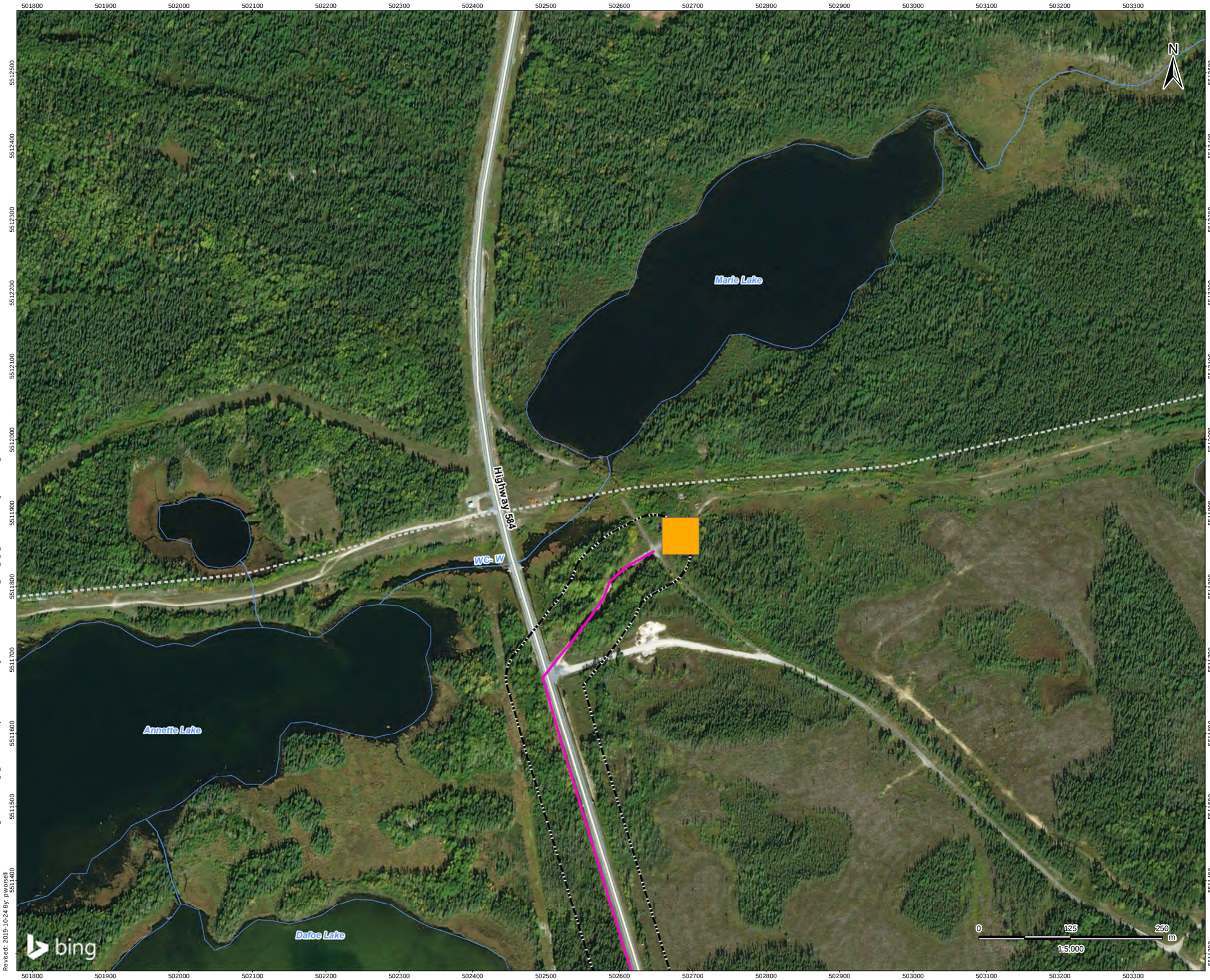
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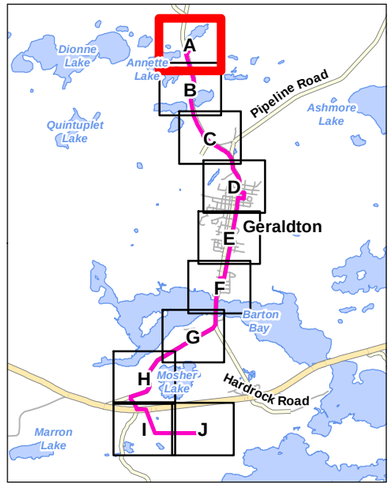
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Potential Heritage Resources

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Revised: 2018-07-20 By: pworsell





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Legend

- Cultural Heritage Study Area
- Existing Union Gas Station
- Preliminary Preferred Route

Existing Features

- Major Road
- Trans Canada Pipeline
- Watercourse
- Waterbody

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Enbridge Gas Inc.
Premier Pipeline Project
Cultural Heritage Assessment

Figure No.

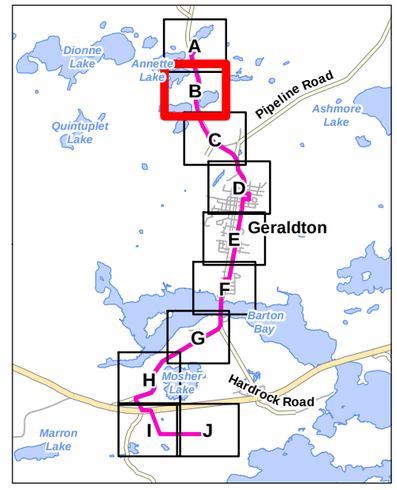
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Identified Heritage Resources

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Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route

Existing Features

- Major Road
- Watercourse
- Waterbody

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Client/Project

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Premier Pipeline Project
Cultural Heritage Assessment

Figure No.

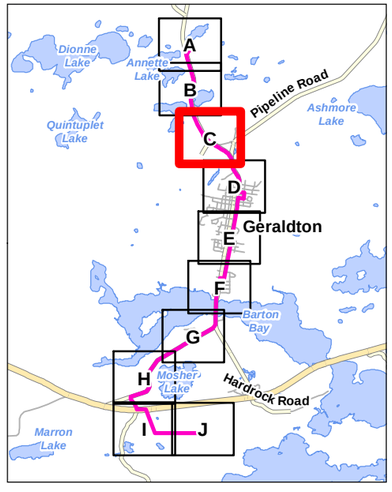
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Title

Identified Heritage Resources

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Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route

Existing Features

- Major Road
- Local Road
- Watercourse
- Waterbody

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Cultural Heritage Assessment

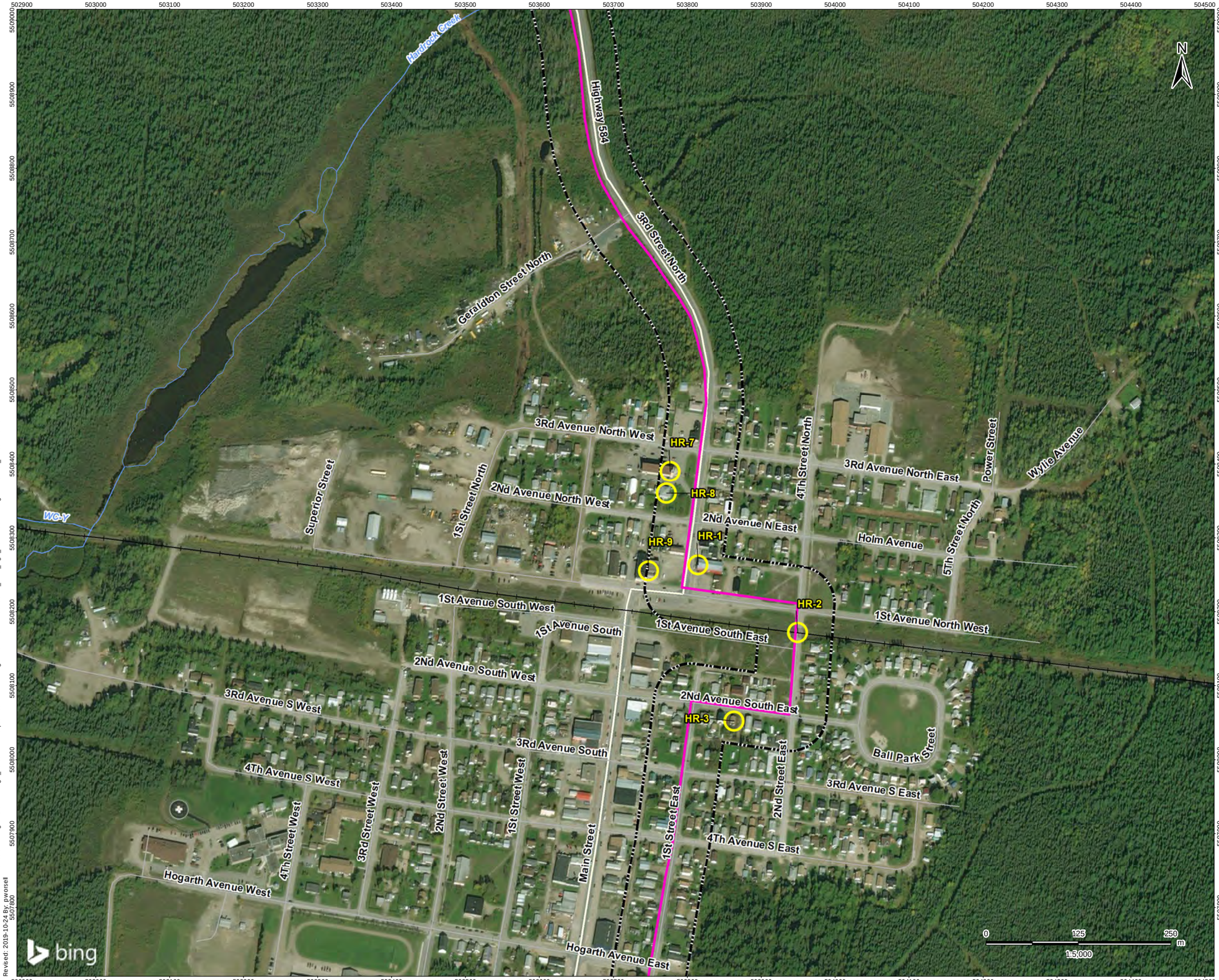
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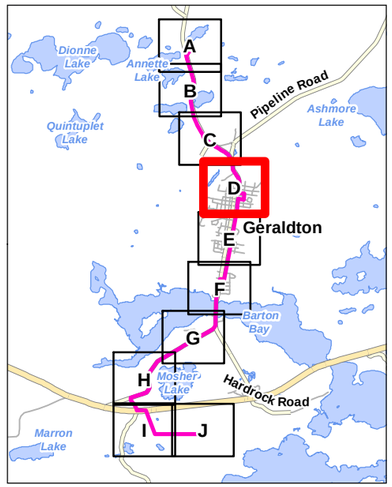
4 - C

Title

Identified Heritage Resources

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Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route
- Identified Heritage Resource

Existing Features

- Major Road
- Local Road
- Railway
- Watercourse
- Waterbody

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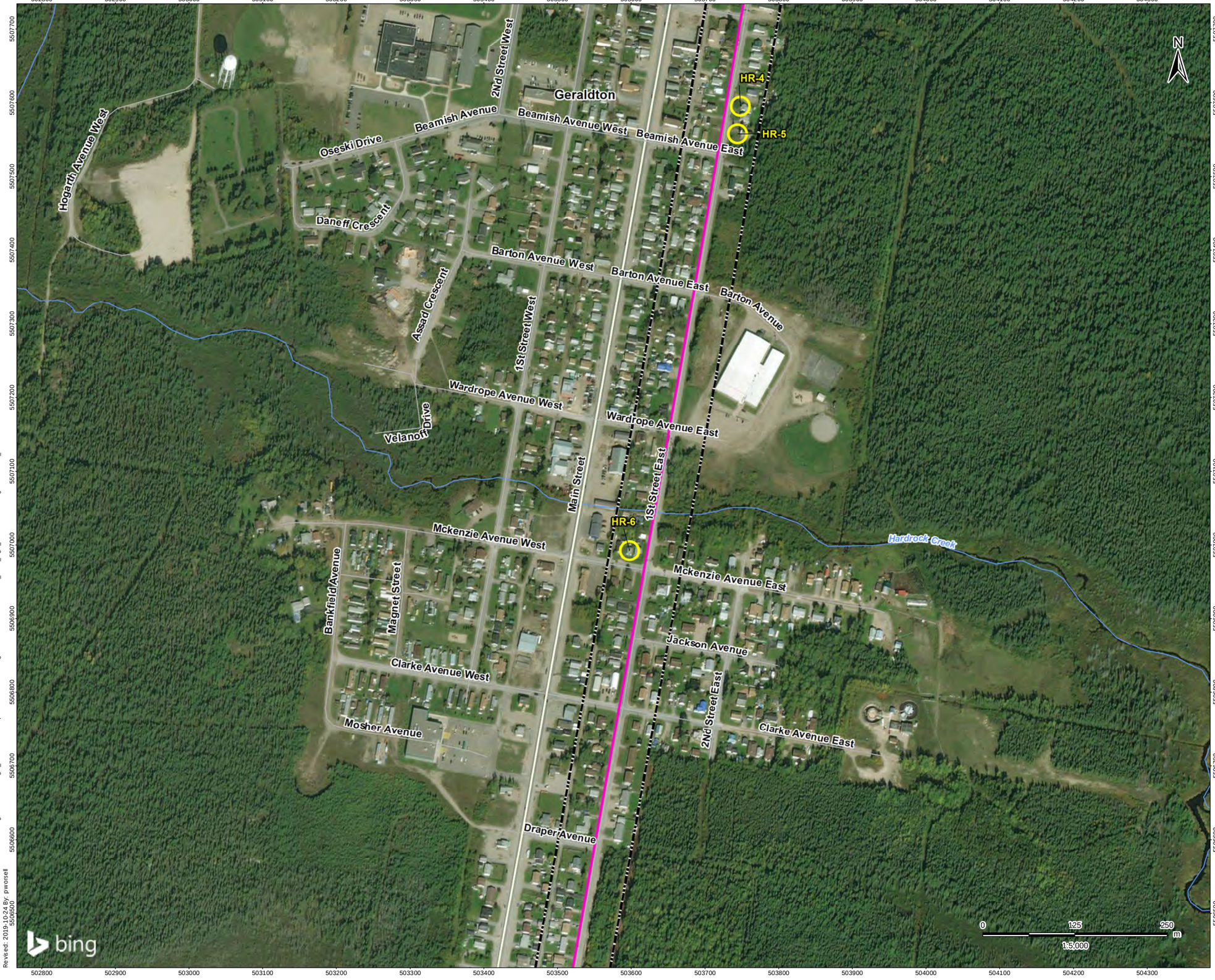
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4 - D

Title

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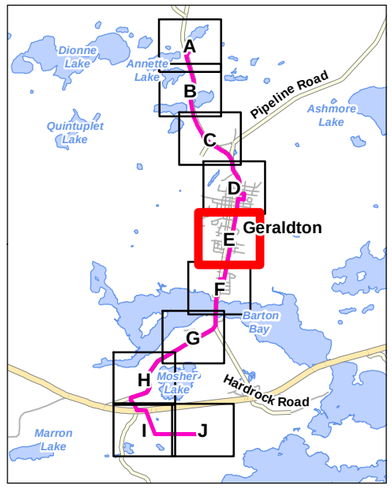


Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route
- Identified Heritage Resource

Existing Features

- Major Road
- Local Road
- Watercourse



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Premier Pipeline Project
Cultural Heritage Assessment

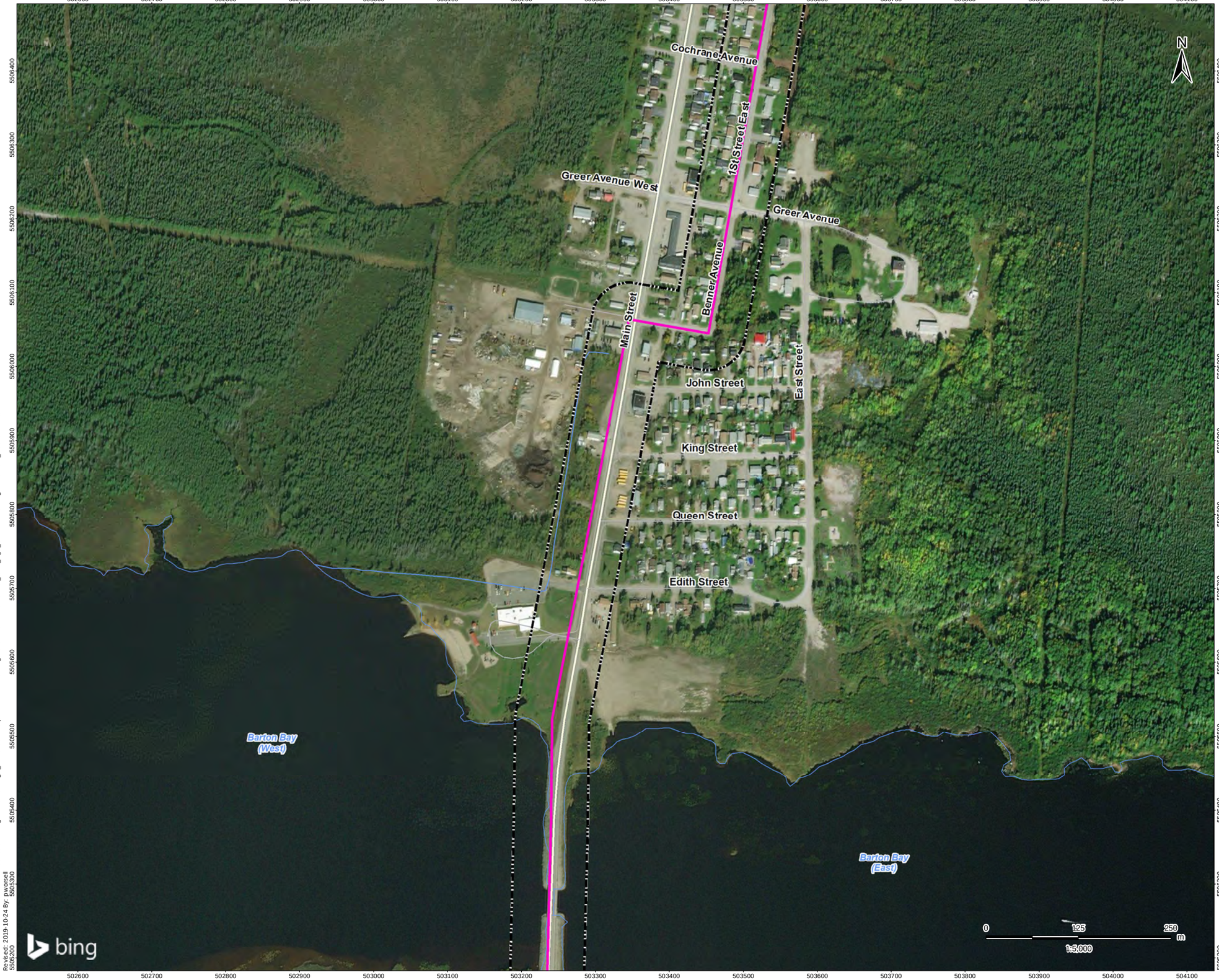
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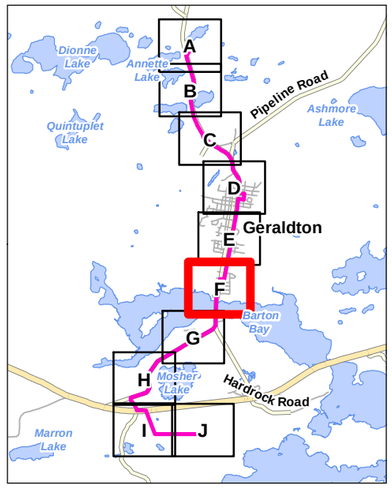
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Title

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Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route

Existing Features

- Major Road
- Local Road
- Watercourse
- Waterbody

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Premier Pipeline Project
Cultural Heritage Assessment

Figure No.

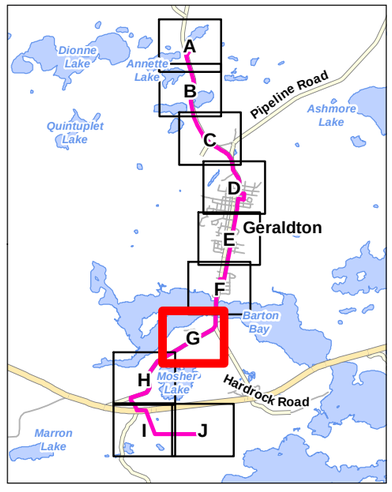
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Title

Identified Heritage Resources

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Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route
- Identified Heritage Resource

Existing Features

- Major Road
- Local Road
- Watercourse
- Waterbody

Notes

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Premier Pipeline Project
Cultural Heritage Assessment

Figure No.

4 - G

Title

Identified Heritage Resources

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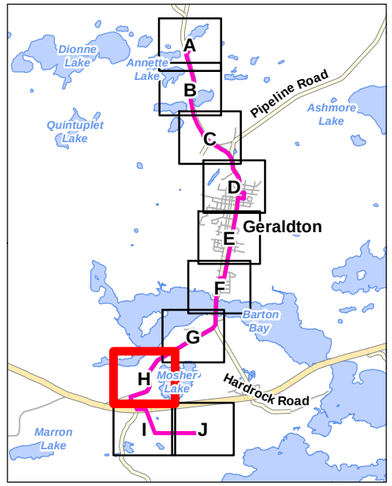
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Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route

Existing Features

- Major Road
- Watercourse
- Waterbody



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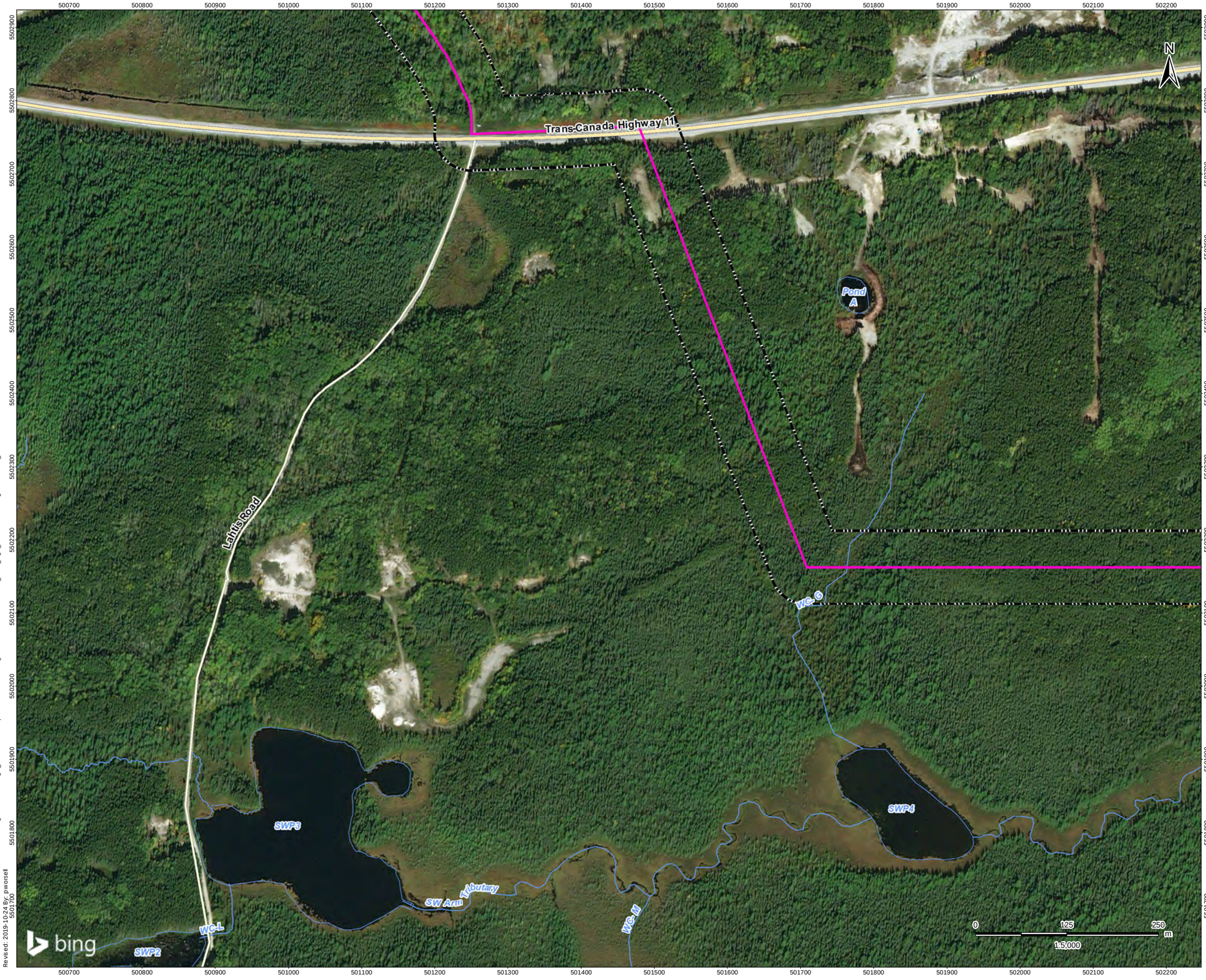
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Premier Pipeline Project
Cultural Heritage Assessment

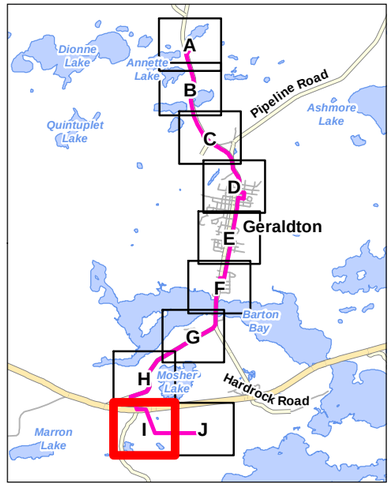
Figure No.

4 - H

Title

Identified Heritage Resources





Stantec

Legend

- Cultural Heritage Study Area
- Preliminary Preferred Route

Existing Features

- Highway
- Major Road
- Watercourse
- Waterbody

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Premier Pipeline Project
Cultural Heritage Assessment

Figure No.

4 - I

Title

Identified Heritage Resources

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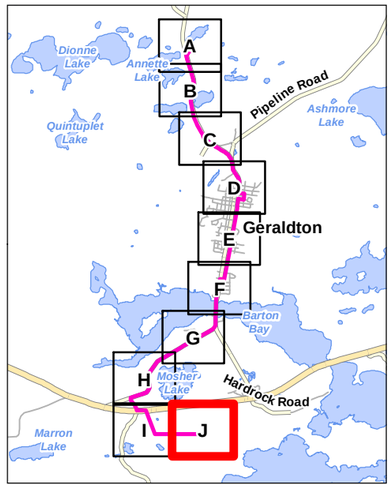
Stantec

Legend

- Cultural Heritage Study Area
- Proposed Hardrock Processing Facility
- Preliminary Preferred Route

Existing Features

- Highway
- Watercourse



Notes

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Client/Project

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Figure No.

4 - J

Title

Identified Heritage Resources

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5.0 EVALUATION OF ANTICIPATED IMPACTS AND MITIGATION OPTIONS

5.1 DESCRIPTION OF THE UNDERTAKING

Enbridge Gas is proposing to construct a new 6-inch (15.24 centimetre (cm)) diameter steel natural gas pipeline within the Municipality of Greenstone, Ontario (the Project). The 14.3 km pipeline would commence at the existing Enbridge Gas Valve Site located 3.5 km north of Geraldton, Ontario which is adjacent to the TransCanada pipeline. The proposed pipeline terminates at the planned GGM processing facility south of TransCanada Highway 11 between Lahtis Road and Hardrock Road.

The following activities are associated with constructing the Proposed Pipeline

- Stringing
- Pipe Fabrication
- Trenching and Lowering
- Backfilling
- Hydrostatic Testing
- Clean-Up and Restoration

It is anticipated that the proposed undertaking will be contained entirely within the Project Location as depicted in Figure 2. The Project will be situated underground, within the existing road right of ways along Highway 584, Third Street North, First Avenue Northwest, Fourth Street North, First Street East, Benner Avenue East, Main Street, Michael Power Boulevard, Arena Road, and the Trans-Canada Highway. There are two sections of the proposed pipeline that are not located within the existing road right of ways, travelling through sections of vegetated/forested area that do not contain structures older than 40 years of age.

5.2 RELATIONSHIP TO PROJECT

Given the proposed undertaking, the evaluation of potential impacts was undertaken where a component of the heritage resource within the Study Area. Components include heritage attributes as described in Appendix A in relation to each heritage resource and may extend beyond the ‘circle’ depicted in Figure 4. The position was used as a measure of potential impacts which would result from the proposed undertaking as described in Section 5.1. The position of heritage resources is considered in relation to the Study Area in Table 3.

Table 3: Relationship of Heritage Resources to the Project Location

Municipal Address	HR Number	Relationship to the Project Location
107 Third Street North	HR-1	Outside the Project Location, within the Study Area
Former Railway Line (Between Highway 584/Main Street and Fourth Street North)	HR-2	Within the Project Location
207 Second Avenue Southeast	HR-3	Outside the Project Location, within the Study Area
517 First Street East	HR-4	Outside the Project Location, within the Study Area
523 First Street East	HR-5	Outside the Project Location, within the Study Area
108 McKenzie Avenue East	HR-6	Outside the Project Location, within the Study Area
104 Second Avenue Northwest (Church) 213 Third Street North	HR-7	Outside the Project Location, within the Study Area
104 Second Avenue Northwest (Parish Office)	HR-8	Outside the Project Location, within the Study Area
104 First Avenue Northwest	HR-9	Outside the Project Location, within the Study Area
540 Michael Power Boulevard	HR-10	Outside the Project Location, within the Study Area
124 Arena Road	HR-11	Outside the Project Location, within the Study Area
1 Rosedale Point	HR-12	Outside the Project Location, within the Study Area
6 and 8 Rosedale Point	HR-13	Outside the Project Location, within the Study Area
Rosedale Point Streetscape	HR-14	Outside the Project Location, within the Study Area

5.3 ANTICIPATED IMPACTS

Where a component of a heritage resource was determined to be situated within the Study Area (Project Location plus a 50-metre buffer) the impacts of the proposed undertaking were evaluated (Table 4). The impacts, both direct and indirect were evaluated according to InfoSheet #5 (Government of Ontario 2006b). See Section 2.6 for further discussion of impacts assessed.

For the purposes of this report, the following abbreviations denote the assessment of impacts:

NA = Not Anticipated, A = Anticipated Impact, P = Potential Impact.

Table 4: Evaluation of Potential Impacts

Address	Direct Impact		Indirect Impact					Discussion
	Destruction	Alteration	Shadows	Isolation	Obstruction	Change in Land Use	Land Disturbances	
107 Third Street North (HR-1)	NA	NA	NA	NA	NA	NA	P	The structure is situated east of the Project Location, which is located within the adjacent municipal RoW. The structure is determined to be situated within the 50 metre buffer of the Project Location. The position of the structure outside the area of direct impact minimizes the potential of destruction as a result of Project construction. However, its location within the 50 metre buffer suggests the potential for indirect impacts resulting from land disturbance during construction activities. **Therefore, mitigation measures must be prepared to mitigate potential indirect impacts.**
Former Railway Line (Between Highway 584/Main Street and Fourth Street North) (HR-2)	NA	NA	NA	NA	NA	NA	NA	A small portion of the former railway corridor is positioned within the Project Location. As an abandoned railway line, which is now a gravel trail with no railway components, construction of the pipeline is not anticipated to alter the heritage attribute, the layout of the former railway line. Project impacts will be minor, as the pipeline will be installed underground with no alterations to the layout of the former railway line. This work will be temporary, and the land will be returned to its pre-construction state. **Therefore, no impacts are anticipated to result from the Project. Mitigation measures are not required.**
207 Second Avenue Southeast (HR-3)	NA	NA	NA	NA	NA	NA	P	The residence is situated south of the Project Location, which is located within the adjacent municipal RoW. The structure is determined to be situated within the 50 metre buffer of the Project Location. The position of the structure outside the area of direct impact minimizes the potential of destruction as a result of Project construction. However, its location within the 50 metre buffer suggests the potential for indirect impacts resulting from land disturbance during construction activities. **Therefore, mitigation measures must be prepared to mitigate potential indirect impacts.**
517 First Street East (HR-4)	NA	NA	NA	NA	NA	NA	P	The residence is situated east of the Project Location, which is located within the adjacent municipal RoW. The structure is determined to be situated within the 50 metre buffer of the Project Location. The position of the structure outside the area of direct impact minimizes the potential of destruction as a result of Project construction. However, its location within the 50 metre

Table 4: Evaluation of Potential Impacts

Address	Direct Impact		Indirect Impact					Discussion
	Destruction	Alteration	Shadows	Isolation	Obstruction	Change in Land Use	Land Disturbances	
								buffer suggests the potential for indirect impacts resulting from land disturbance during construction activities. **Therefore, mitigation measures must be prepared to mitigate potential indirect impacts.**
523 First Street East (HR-5)	NA	NA	NA	NA	NA	NA	P	The Geraldton Ukrainian Roman Catholic Church is situated east of the Project Location, which is located within the adjacent municipal RoW. The structure is determined to be situated within the 50 metre buffer of the Project Location. The position of the structure outside the area of direct impact minimizes the potential of destruction as a result of Project construction. However, its location within the 50 metre buffer suggests the potential for indirect impacts resulting from land disturbance during construction activities. **Therefore, mitigation measures must be prepared to mitigate potential indirect impacts.**
108 McKenzie Avenue East (HR-6)	NA	NA	NA	NA	NA	NA	P	The residence is situated west of the Project Location, which is located within the adjacent municipal RoW. The structure is determined to be situated within the 50 metre buffer of the Project Location. The position of the structure outside the area of direct impact minimizes the potential of destruction as a result of Project construction. However, its location within the 50 metre buffer suggests the potential for indirect impacts resulting from land disturbance during construction activities. **Therefore, mitigation measures must be prepared to mitigate potential indirect impacts.**
104 Second Avenue Northwest (HR-7)	NA	NA	NA	NA	NA	NA	P	The St. Theresa's Parish church is situated west of the Project Location, which is located within the adjacent municipal RoW. The structure is determined to be situated within the 50 metre buffer of the Project Location. The position of the structure outside the area of direct impact minimizes the potential of destruction as a result of Project construction. However, its location within the 50 metre buffer suggests the potential for indirect impacts resulting from land disturbance during construction activities. **Therefore, mitigation measures must be prepared to mitigate potential indirect impacts.**

Table 4: Evaluation of Potential Impacts

Address	Direct Impact		Indirect Impact					Discussion
	Destruction	Alteration	Shadows	Isolation	Obstruction	Change in Land Use	Land Disturbances	
104 Second Avenue North West (HR-8)	NA	NA	NA	NA	NA	NA	P	The St. Theresa's Parish office is situated west of the Project Location, which is located within the adjacent municipal RoW. The structure is determined to be situated within the 50 metre buffer of the Project Location. The position of the structure outside the area of direct impact minimizes the potential of destruction as a result of Project construction. However, its location within the 50 metre buffer suggests the potential for indirect impacts resulting from land disturbance during construction activities. **Therefore, mitigation measures must be prepared to mitigate potential indirect impacts.**
104 First Avenue Northwest (HR-9)	NA	NA	NA	NA	NA	NA	P	The post office is situated west of the Project Location, which is located within the adjacent municipal RoW. The structure is determined to be situated within the 50 metre buffer of the Project Location. The position of the structure outside the area of direct impact minimizes the potential of destruction as a result of Project construction. However, its location within the 50 metre buffer suggests the potential for indirect impacts resulting from land disturbance during construction activities. **Therefore, mitigation measures must be prepared to mitigate potential indirect impacts.**
540 Michael Power Boulevard (HR-10)	NA	NA	NA	NA	NA	NA	P	The residence is situated west of the Project Location, which is located within the adjacent municipal RoW. The structure is determined to be situated within the 50 metre buffer of the Project Location. The position of the structure outside the area of direct impact minimizes the potential of destruction as a result of Project construction. However, its location within the 50 metre buffer suggests the potential for indirect impacts resulting from land disturbance during construction activities. **Therefore, mitigation measures must be prepared to mitigate potential indirect impacts.**
124 Arena Road (HR-11)	NA	NA	NA	NA	NA	NA	P	The commercial building is situated north of the Project Location, which is located within the adjacent municipal RoW. The structure is determined to be situated within the 50 metre buffer of the Project Location. The position of the structure outside the area of direct impact minimizes the potential of destruction as a result of Project construction. However, its location within the 50

Table 4: Evaluation of Potential Impacts

Address	Direct Impact		Indirect Impact					Discussion
	Destruction	Alteration	Shadows	Isolation	Obstruction	Change in Land Use	Land Disturbances	
								metre buffer suggests the potential for indirect impacts resulting from land disturbance during construction activities. **Therefore, mitigation measures must be prepared to mitigate potential indirect impacts.**
1 Rosedale Point (HR-12)	NA	NA	NA	NA	NA	NA	P	The residence is situated east of the Project Location, which is located within the adjacent municipal RoW. The structure is determined to be situated within the 50 metre buffer of the Project Location. The position of the structure outside the area of direct impact minimizes the potential of destruction as a result of Project construction. However, its location within the 50 metre buffer suggests the potential for indirect impacts resulting from land disturbance during construction activities. **Therefore, mitigation measures must be prepared to mitigate potential indirect impacts.**
6 and 8 Rosedale Point (HR-13)	NA	NA	NA	NA	NA	NA	P	The residence is situated east of the Project Location, which is located within the adjacent municipal RoW. The structure is determined to be situated within the 50 metre buffer of the Project Location. The position of the structure outside the area of direct impact minimizes the potential of destruction as a result of Project construction. However, its location within the 50 metre buffer suggests the potential for indirect impacts resulting from land disturbance during construction activities. **Therefore, mitigation measures must be prepared to mitigate potential indirect impacts.**
Rosedale Point Streetscape (HR-14)	NA	NA	NA	NA	NA	NA	NA	The Rosedale Point Streetscape is situated east of the Project Location. Construction of the proposed pipeline is not anticipated to alter the heritage attributes associated with the heritage resource. **Therefore, no impacts are anticipated to result from the Project. Mitigation measures are not required.**

5.4 MITIGATION OPTIONS

Where potential impacts are identified, measures to mitigate them have been provided. The impetus for avoidance of impacts comes from two sources, the OEB Guidelines and the PPS (see Section 2.1). The former requires that cultural heritage resources be protected by “appropriate conservation, avoidance and mitigation,” while the latter requires conservation of “significant” heritage resources as well as the “heritage attributes of the protected heritage property” (see Section 2.1 for full excerpts of requirements). When combined, precautions are required to conserve heritage resources through avoidance and mitigation where the potential for a Project to impact heritage resources has been identified. Therefore, the below mitigation options have been developed to provide for the conservation of heritage attributes of heritage resources. These are based on mitigation or avoidance measures developed by the MTCS and contained within InfoSheet #5 (Government of Ontario 2006b). See Section 2.6 for further discussion of mitigation methods assessed.

The proposed undertaking involves installation of a pipeline within the municipal RoW and largely belowground. As the land will be returned to its current state all anticipated impacts are related to the construction phase of the Project. Where potential impacts have been identified, components of heritage resources are positioned within the 50-metre buffer but outside the Project Location, the area where project activities are anticipated. As a result, the identified heritage resources are not at risk of removal and will be retained intact.

For most potential impacts a preventive approach to mitigation measures will best serve to reduce the risk of indirect impacts. Table 5 contains a summary of the evolution of mitigation options.

14 heritage resources were determined to be situated within the 50 metres of the Project Location. These resources include:

- 107 Third Street North (HR-1)
- Former Railway Line (HR-2)
- 207 Second Avenue Southeast (HR-3)
- 517 First Street East (HR-4)
- 523 First Street East (HR-5)
- 108 McKenzie Avenue East (HR-6)
- 104 Second Ave Northwest (Church) (HR-7)
- 104 Second Avenue Northwest (Parish Office) (HR-8)
- 104 First Avenue Northwest (HR-9)
- 540 Michael Power Boulevard (HR-10)
- 124 Arena Road (HR-11)
- 1 Rosedale Point (HR-12)
- 6 and Rosedale Point (HR-13)
- Rosedale Point Streetscape (HR-14)

Table 5: Evaluation of Mitigation and Avoidance Options

Methods	Discussion
Alternative Development	The current approach involves minimal land disturbance and generally follows the path of the existing RoW. Therefore, alternative development is not required.
Isolation of Development	Isolation of Project construction activities from the HRs can be an added mitigation measure to prevent unanticipated direct and indirect impacts. For the construction of the new pipeline, isolation alone is not an acceptable mitigation measure, but when combined with vibration monitoring and surveys, as discussed below, it can be an added layer of protection against direct and indirect impacts.
Harmonization of Design Guidelines	The Project will not introduce any above ground features and will return the landscape to current conditions. Therefore, design guidelines are not required.
Limitation of Construction	The Project will not introduce any above ground features and will return the landscape to current conditions. Therefore, no limitations on height or density of construction are required.
Compatible Additions	The Project will not introduce any above ground features and will return the landscape to current conditions. Therefore, compatible additions are not required.
Reversible Alterations	The Project will not introduce any above ground features and will return the landscape to current conditions. Therefore, alterations to the landscape do not need to be considered.
Planning Mechanisms	Various planning mechanisms have been introduced to the Project in order to evaluate impacts of the Project on multiple aspects of the surrounding environment. As these mechanisms pertain to heritage resources, the use of a buffer surrounding the Project Development Area is the most significant planning mechanism. The use of buffer zones on construction maps to indicate where a heritage resource is positioned within the Project Location will indicate to construction crews the need for complete avoidance of construction activities in the vicinity of each HR. The depiction of buffer zones on construction mapping should be used only where a heritage resource has been identified within 50 metres of the construction area. Where this occurs physical markers will be used during Project activities to demarcate the appropriate buffer zone.

Prior to establishment of planning mechanisms, further assessment to refine the areas of potential impact may be beneficial as ground movements induced by construction vibration are found to dissipate with distance from the source. The severity of soil movements depends primarily on type and compactness and/or consistency of the surrounding soils particularly between the source, receiver, and groundwater levels. The source, duration, frequency of occurrences of vibration, and the foundation-footing interaction also contribute to the strains induced in structures. As a result, there is a variance in what buffer may be appropriate. For the purposes of conserving heritage resources, a 50 metre buffer represents a conservative approach. However, it is recognized that construction within 50 metres of the HRs is likely to occur given the nature of the proposed undertaking.

Where construction activities cannot be avoided within the 50 metre buffer zone, as is anticipated to be the case with several heritage resources, it is recommended that activities do not exceed maximum acceptable vibration levels, or peak particle velocity (PPV) levels, as determined by a qualified building condition specialist or geotechnical engineer. Establishing the PPV threshold should occur prior to any construction activities (pre-construction survey). The retained specialist should make determinations on the appropriate approach to establish baseline conditions.

It is anticipated that PPV levels will be established for general conditions within the Study Area and in the vicinity of heritage resources identified. At appropriate points, construction within the defined buffer zone should be monitored to confirm that acceptable PPV levels are not exceeded. The retained specialist will determine if monitoring of the heritage resources can be grouped together depending on their location or completed instead on a per property basis. All construction activities should cease if levels are exceeded until an acceptable solution can be identified. Equal care should be applied during decommissioning activities to safeguard heritage resources.

To minimize negative indirect impacts, the cultural heritage resources should be isolated from construction activities. This can be achieved through site plan controls put in place prior to construction which avoid potential indirect impacts as a result of the Project. The site plan control methods may include construction fencing, traffic cone or pylon delineation, or taped off areas to indicate where Project activities will occur. These controls should be indicated on all construction mapping and communicated to the construction team leads.

5.4.1 Avoidance of Potential Impacts

In general, for the Project, the following will need to be taken into account for each CHR to eliminate any potential impacts:

- Any proposed road projects and preferred alternative designs within the Study Area should be suitably planned in a manner that avoids any identified HR's.
- Encroachment of lands close to HR's should be avoided wherever possible. Should the proposed pipeline impact any heritage attributes of a HR, appropriate landscape measures, including protection and/or mitigation as per Table 5, should be developed for these resources as part of the detailed design phase.
- All staging and construction activities should be planned and undertaken to avoid impacts to an identified CHR. Preventative measures can include, but are not limited to, the installation of temporary fencing around resources, and stabilization/protection of resources and adoption of tree protection measures.
- Post-construction landscaping and rehabilitation plans should be undertaken in a manner that is sympathetic to the overall setting. Wherever possible, landscaping with historic plant materials for berms or vegetative screens is recommended, and fence rows and hedge rows should be preserved where extant.
- If design and Project Location are revised this could have an impact on the identified heritage attributes of the HR, appropriate mitigation measures will need to be developed.
- Should future work require an expansion of the current Study Area and/or the development of other alternatives, a qualified heritage consultant should be contacted in order to confirm impacts of the undertaking on potential cultural heritage resources. MTCS should also be notified.

6.0 RECOMMENDATIONS

6.1 ISOLATION AND BUFFER ZONES

- Prepare vibration studies for the cultural heritage resources located within the Study Area by a qualified building condition specialist or geotechnical engineer to determine the maximum acceptable vibration levels, or peak particle velocity (PPV) levels and the appropriate buffer distance between Project activities and HRs.
- Monitor construction within the defined area at appropriate points to confirm that acceptable PPV levels are not exceeded. All construction activities should cease if levels are exceeded until an acceptable solution can be identified.
- As an additional mitigation measure, isolate heritage resources from the construction area to the greatest extent possible, to indicate where all construction activities must be avoided, based on distances established during the vibration level analysis. Site plan control methods may include construction fencing, traffic cone or pylon delineation, or taped off areas to indicate where Project activities will occur. This provides more of a visual demarcation to construction crews of where vibration impacts should be avoided or limited. These controls should be indicated on all construction mapping and communicated to the construction team leads. If construction activities enter into the demarcated buffer area, all activities should cease immediately and a temporary 50 metre buffer zone surrounding the impacted area should be established where no construction activities should occur. A qualified building condition specialist or geotechnical engineer should be retained to determine if any damage was incurred as a result of the construction activities. Only following approval from the building specialist should construction activities resume and the original demarcated buffer should be re-established.

6.2 ENVIRONMENTAL MONITORING AND REPORTING

Enbridge Gas' on-site inspection team should monitor that buffer zone delineation, outlining the limit of the construction footprint and subsequent setback from heritage features, is maintained throughout construction and post-construction rehabilitation. It is anticipated that, as a condition of Project approval, the Ontario Energy Board will require post-construction monitoring reports; such reports will document the implementation and effectiveness of environmental mitigation and protective measures, including the installation and maintenance of site plan controls.

6.3 DEPOSIT COPIES

To assist in the retention of historic information, copies of this report should be deposited with local repositories of historic material and municipalities. Therefore, it is recommended that this report be deposited at the following location:

Greenstone Public Library, Geraldton Branch
405 2nd Street West
Geraldton, Ontario, P0T 1M0

7.0 CLOSURE

This report has been prepared for the sole benefit of the Enbridge Gas, and may not be used by any third party without the express written consent of Stantec Consulting Ltd. Any use which a third party makes of this report is the responsibility of such third party.

We trust this report meets your current requirements. Please do not hesitate to contact us should you require further information or have additional questions about any facet of this report.

8.0 REFERENCES

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APPENDIX A
HERITAGE RESOURCES FORMS

Municipal Address:
1025 Highway 584

Former Township or County: Errington Township

Municipality: Greenstone

Resource Type: Other - See Description

Associated Dates: Undetermined

Relationship to Project: Within Study Area

Description: Obstructed view to resource by setback and vegetation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: Indeterminable for public right of way due to distance from road and vegetation.

Historical or Associative Value: Indeterminable for public right of way due to distance from road and vegetation.

Contextual Value: Indeterminable for public right of way due to distance from road and vegetation.

Identified Heritage Attributes: Indeterminate

Identification of Cultural Heritage Value or Interest (CHVI): Indeterminate

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18





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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1 The Olde Road

Former Township or County: Ashmore Township

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950-1976

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a medium-pitched front facing gable roof. The exterior has modern siding and windows. The residence has an asymmetrical front facade, shed roof carport, and concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18







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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
798 French Hill Road

Former Township or County: Errington Township

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains two residences set back from the roadway, with scrapyard out front. Residence 1: This structure is a one storey building with a low-pitched front facing gable roof. The exterior has a symmetrical front facade, modern windows, enclosed front porch, and undetermined foundation. Residence 2: This structure is a one storey building with a low-pitched front facing gable roof. The residence has a gable roof addition. The exterior has modern siding and windows and undetermined foundation.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

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Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
311 Third Street North

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is one storey structure with a medium-pitched cross gable roof that has asphalt shingles. The exterior has an asymmetrical front facade, and has modern siding, windows and shutters. The residence has a partial concrete entry porch, a side entry porch, and a concrete foundation with basement. The outbuilding is a two car garage with gable roof and concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): N/A

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18





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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
309 Third Street North

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a loft. The roof is a medium- pitched front facing gable roof, with asphalt shingles. The exterior has modern siding and windows. The residence has an enclosed front entry porch. The residence has a concrete foundation. The rear out building has a gable roof that has a shed roof addition, horizontal wood exterior and a 1 by 1 wood window.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified

Historical or Associative Value: None Identified

Contextual Value: None Identified

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18





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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
307 Third Street North

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a low-pitched cross gable roof, with asphalt shingles. The exterior has an asymmetrical front facade, modern siding, and a concrete foundation. The outbuilding is a modern garage at the rear of the property.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18



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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
102 Third Avenue Northeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a loft. The roof is a medium- pitched front facing gable roof, with asphalt shingles, and a brick chimney. The exterior has a symmetrical front facade, concrete asbestos siding and modern windows. The residence has a shed roof addition and a concrete foundation. The outbuilding is a one storey structure with a gable roof, asphalt shingles, and 8 paned fixed wood window.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

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Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
100 Third Avenue Northeast
Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and modern outbuilding. The residence is a one and a half storey structure with a front facing gable roof that has asphalt shingles. The exterior is clad with modern siding, and has modern windows. The front elevation has an enclosed front entry porch, and partial wooden porch. The residence has a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18





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Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
213 Third Street North

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a low-pitched front facing gable with rear hipped roof and shed roof end. The roof has asphalt shingles. The exterior has concrete asbestos siding and modern windows, and a concrete foundation. The property is surrounded by a wood picket fence.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18







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Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
105 Third Avenue Northeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched front facing gable roof with asphalt shingles and concrete block chimney. The exterior has modern siding, partial wood entry porch, an asymmetrical front facade, and concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18



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Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
211 Third Street North

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a front facing gable roof, with a shed roof addition, and asphalt shingles. The exterior has modern siding and windows, and a concrete foundation. The outbuilding is a one storey structure with a gable roof. The exterior of the outbuilding has modern siding, and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18





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Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
205 Third Street North

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a low-pitched front facing gable roof that has asphalt shingles. The exterior has modern siding and windows, a projecting enclosed entry porch, and modern siding over foundation. The outbuilding is a modern one car garage with front facing gable roof.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
103 Second Avenue Northeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey building with a front facing gable roof that is clad in metal. The exterior has modern siding and windows, a partial entry porch, and modern siding over its foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
109 Third Street North

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Commercial Building

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a commercial building and outbuilding. The building is occupied by Nicole's Variety Store. The commercial building is a one storey structure with a with low-pitched front facing gable roof that is clad in metal. The exterior has modern siding, modern windows, and an asymmetrical front facade. The building has an undeterminate foundation. The outbuilding is a two car garage with a medium-pitched front facing gable roof. The outbuilding is clad in modern siding.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18







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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
107 Third Street North
Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Commercial Building

Associated Dates: 1940s-1950s

Relationship to Project: Within Study Area

Description: This property contains a commercial building. The building is the Geraldton Country Club Bar & Grille. The structure is a two storey building with a low-pitched front facing gable roof. The painted brick exterior is clad with modern siding. The front (west) elevation has three windows in its upper storey separated by quoins. The asymmetrical entrance has a projecting overhang. The building has a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: Example of mid-20th century commercial construction. This is one of the few buildings in the study area to be of brick construction and use quoins in the front facade, therefore it is a rare example of this type of construction in the study area.

Historical or Associative Value: None Identified

Contextual Value: This building maintains and supports the character of the study area. It is physically, functionally, visually, and historically linked to its surroundings.



Identified Heritage Attributes: Commerical building: Two storey, low-pitched gable roof, brick exterior, quoins, projecting entrance overhang, and asymmetrical front entrance.

Identification of Cultural Heritage Value or Interest (CHVI): Yes

Heritage Resource Number: HR-1

Completed by (name): Laura Walter

Date Completed: 2017-07-18



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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
108 First Avenue Northwest

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Commercial Building

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a commercial building, The building is occupied by Greenstone Victim Services. The building is a one and a half storey structure with an irregular front facing gable roof with modern design. The exterior has been heavily altered, and has modern siding and windows. The building has an asymmetrical front entrance, partial entry porch, and a concrete foundation. The structure was recently renovated.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18







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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:

Former Railway Line (Between Highway 584/ Main Street and Fourth Street North)

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Other - See Description

Associated Dates: 1914-2005

Relationship to Project: Within Study Area

Description: The property contains the Canadian National (CN) Railway former railway line that is now a gravel trail. Train service was first extended into the study area in 1914. CN Railways ended service on this line in May 2005 and began removal of the tracks. The trail is partially grown over with vegetation.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: The trail is associated with the former CN railway line, that operated through the study area from 1914 to 2005.

Contextual Value: The former railway corridor supports the early 20th century character of the study area and is physically and historically linked to its surroundings.

Identified Heritage Attributes: Trail: Layout of the former Canadian National Railway line.

Identification of Cultural Heritage Value or Interest (CHVI): Yes

Heritage Resource Number: HR-2

Completed by (name): Laura Walter

Date Completed: 2017-07-18

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
103 Fourth Street

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched front facing gable roof that has asphalt shingles. The asymmetrical exterior has modern siding, modern windows, and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18



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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
105 Fourth Street

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof with asphalt shingles. The exterior has modern siding, partial decorative stonework, and a concrete foundation. The residence has a shed roof addition with 6 by 6 wood windows.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
109 Fourth Street

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched front facing gable roof. The exterior has concrete asbestos siding, modern windows, and partial wooden entry porch. The foundation is covered in wood.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18



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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
201 Fourth Street

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a medium-pitch front facing gable roof with asphalt shingles. The exterior has modern siding and windows. The symmetrical front elevation has a full front wood porch. The residence has a concrete foundation. The outbuilding is a two car garage with a steeply-pitched front facing gable roof. The property has mature spruce trees and partial hedgerow.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18







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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
215 Fourth Street

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one and a half storey structure with a gable roof with large shed roof dormer, brick chimney, and asphalt shingles. The exterior has modern siding, modern windows, a partial wood entry porch, and concrete foundation with basement. The outbuilding is a modern two car garage with a gable roof.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18







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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
213 Second Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one strorey structure with a medium-pitched side gable roof that has asphalt shingles, and a concrete block chimney. The exterior has modern siding, modern windows, a and concrete foundation. The front elevation is symmetrical.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18





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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
211 Second Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a two storey structure with a low-pitched front facing gable roof. The exterior has modern siding and modern windows, and concrete foundation. The front elevation is symmetrical.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No.

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18



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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
207 Second Avenue Southeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1930s-1940s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a front facing gable roof that has asphalt shingles. The front elevation has a projecting entrance porch and a front facing gable with wood tracery. The exterior has horizontal wood siding, with 3/1 wood windows, and a concrete block foundation. The outbuilding has a side gable roof, modern siding, and an attached shed roof addition with horizontal wood siding and a fixed 6 pane window. The property is partially surrounded by wood fence.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: This structure is representative of the first types of residences constructed in Geraldton. It is a rare example of a structure from this period with largely original features.

Historical or Associative Value: None Identified.

Contextual Value: Representative of buildings from the founding period of Geraldton.

Identified Heritage Attributes: Residence: One storey structure, front facing gable roof, horizontal wood siding, projecting entrance porch, wood tracery in gable peak, and 3/1 wood windows.

Identification of Cultural Heritage Value or Interest (CHVI): Yes

Heritage Resource/Landscape Number: HR-3

Completed by (name): Laura Walter

Date Completed: 2017-07-18

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
205 Second Avenue Southeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Commercial Building

Associated Dates: 1940s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence converted into a commercial building, The building is occupied by the Victoria Bed and Breakfast. The commercial building is a two and a half storey structure with a low-pitched front facing gable roof clad in metal. The front elevation is symmetrical with decorative shingles in its gable peak. The exterior has modern siding and windows, and concrete foundation with basement.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18





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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
203 Second Avenue Southeast
Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1950s

Relationship to Project: Within Study Area

Description: The property contains two residences. The rear residence is a one storey structure with a steeply-pitched front facing gable roof. The exterior has modern siding, modern windows, and wood over its foundation. The front residence is a one storey structure with a low-pitched cross gable roof, with front parapet and brick chimney. The exterior has modern siding, modern windows, and wood over its foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18





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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
110 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is one storey, with a low-pitched front facing gable roof that has asphalt shingles. The exterior has concrete asbestos siding, 3/1 wood windows on one side of front facade, modern windows, wood window surrounds, and metal over its foundation. The rear outbuilding has a medium-pitched gable roof with modern siding and a four pane wood window.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18





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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
112 First Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched front facing gable roof and brick chimney. The exterior is clad in brick, has modern windows, and a concrete foundation. The property is surrounded in modern wood fencing.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
202 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one and a half storey structure with a medium- pitched side gable roof that has asphalt shingles. The front elevation has a shed dormer, and a full covered porch. The exterior has modern siding and windows, and an undetermined foundation. The outbuilding is a modern single car garage with a low-pitched front facing gable roof.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18





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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
204 First Street South

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched gable roof, with shed roof addition. The exterior has modern siding, an asymmetrical facade, and metal over its foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18



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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
208 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one and a half storey structure with a low-pitched gable roof. The structure has an enclosed shed roof entrance porch and south side shed roof entrance porch. The exterior has modern siding, and a concrete foundation. The rear outbuilding has a metal clad roof, modern siding, wood doors, an 8 pane fixed window, and a 6 pane fixed window.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18







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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
300 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a medium-pitched side gable roof clad in metal. The building has a shed roof addition. The exterior has modern siding, modern windows, a partial wood entrance porch, an asymmetrical exterior, and concrete foundation. The outbuilding is a modern garage with a front facing gable roof and modern siding.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18





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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
302 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a two storey structure with a low-pitched front facing gable roof with asphalt shingles. The exterior has modern siding, an asymmetrical exterior, and a rusticated concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
304 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1960s

Relationship to Project: Within Study Area

Description: Residence: This property contains a residence. The residence is a one storey structure with a high-pitched front facing gable roof. The exterior has modern siding, modern windows, and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
306 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1930s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one and a half storey structure with a medium-pitched front facing gable roof that has asphalt shingles. The exterior has modern siding, modern windows, and an undetermined foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18





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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
310 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a medium-pitched front facing gable roof that is clad with metal. The exterior has modern siding, modern windows, siding over its foundation, and partial entrance porch. The outbuilding is a two car garage with a low-pitched side gable roof.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

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Client/Project
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
109 Fourth Avenue Southeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1930s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is one storey structure with a medium-pitched front facing gable roof with asphalt shingles. The building has a shed roof addition on the east elevation. The exterior has concrete asbestos siding, modern windows, a partial wood entry porch, and metal covering foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
111 Fourth Street Southeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey building with a medium-pitched side gable roof, with shed roof end and projecting enclosed entry porch. The roof has asphalt shingles and a brick chimney. The exterior has modern siding, modern windows, and a rusticated concrete block foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18





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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
202 Fourth Street Southeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence and two modern outbuildings. The residence is a one and a half storey structure with a medium-pitched front facing gable roof, that has asphalt shingles, and a concrete block chimney. The exterior has horizontal wood siding, modern windows, a partial entry porch, and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18



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Client/Project
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
204 Fourth Avenue Southeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof that has asphalt shingles. The exterior has modern siding, a projecting gabled entry porch, and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18



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Client/Project
Enbridge Gas
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
402 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a low-pitched front facing gable roof that is clad with metal. The exterior has modern siding, wood window surrounds, modern windows, and wood over its foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18





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Client/Project
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
404 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched front facing gable roof that has asphalt shingles. The exterior has modern siding, a full wood front elevation porch, modern windows, and an undetermined foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
406 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Commercial Building

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a commercial building. The building is occupied by the Kinsmen Hall and Thrift Store. The Kinsmen are a community service organization. The commercial building is a one storey structure with a low-pitched front facing gable roof, that has asphalt shingles. The exterior is clad in brick and vertical wood siding. The building has a gable roof addition, and a concrete block foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18





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Enbridge Gas
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1405 Main Street

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is two storey building with a flat roof that has modern mansard sides and asphalt shingles. The exterior has concrete asbestos siding, a symmetrical front facade, half glass wood entrance doors, and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1409 Main Street

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Commercial Building

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a commercial building. The current occupant is the Geraldton Economic Development Corporation. The commercial building is a one storey structure with a low-pitched side gable roof that has asphalt shingles. The exterior has modern siding, modern windows, and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18



Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1501 Main Street

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Commercial Building

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a commercial building. The current occupants are a pizzeria and rental units. The commercial building is a two storey structure with a stepped flat roof and a brick chimney. The exterior has modern siding, modern windows, a symmetrical front elevation, and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource/Landscape Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18



Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1114 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched side gabled roof that has a metal chimney and asphalt shingles. The exterior has modern siding, a projecting bay, modern windows, and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18



Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1116 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is one storey structure with a low-pitched side gable roof that has a metal chimney, and asphalt shingles. The exterior has modern siding, a projecting bay, a modern bay window, modern windows, and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1118 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched side gable roof that is clad in metal. The exterior is clad in brick and has modern windows, a partial concrete entrance porch, and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18



Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1120 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with low-pitched side gable roof with asphalt shingles. The exterior is clad in brick and has modern windows, a concrete partial porch, and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

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Client/Project
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1124 First Street East



Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with low-pitched side gable roof. The exterior has modern siding and windows, a partial wood entry porch, and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1128 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof with asphalt shingles, and a metal chimney. The exterior has modern siding and windows, a partial wood entrance porch, and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

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Client/Project
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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1130 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched front facing gable roof with asphalt shingles. The exterior has modern siding, modern windows, a concrete partial entry porch, and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18



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Client/Project
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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1200 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched side gable roof with asphalt shingles. The exterior has modern siding, modern windows, a concrete partial entrance porch, and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

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Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1202 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched side gable roof with asphalt shingles. The exterior is clad in brick, has modern siding and windows, concrete window sills, and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18





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Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1206 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched side gable roof and an attached shed roof carport. The exterior is clad in brick, and has modern window with concrete sills, a partial concrete entrance porch, and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1208 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched side gable roof that has asphalt shingles. The exterior has modern siding, modern windows, a concrete partial entrance porch, and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1210 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched side gable roof that has asphalt shingles. The exterior has an asymmetrical front facade with modern siding and windows. The building has a concrete foundation and a partial entrance porch.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18



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Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1214 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched side gable roof that has asphalt shingles. The exterior has an asymmetrical front facade, modern siding and windows, a partial concrete entrance porch, and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1218 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched side gable roof with asphalt shingles. The exterior is clad in brick, and has modern windows with concrete sills. The residence has a partial concrete entrance porch, and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No.

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1220 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched side gable roof with asphalt shingles. The exterior is clad in brick, with modern windows, a partial concrete entry porch, and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18



Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1222 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched front gable roof with a wide eaves. The exterior has modern siding and windows. The residence has two entrance porches. A partial wooden entrance porch on the front facade and partial wooden side-gable entrance porch on the south elevation. The structure has a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
110 Greer Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched cross gable roof with asphalt shingles. The exterior has modern windows and siding, and an undetermined foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18





Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
109 Greer Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched side gable roof with asphalt shingles. The exterior is clad in brick and has modern windows, a partial wood porch, and a concrete foundation with basement.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1326 Main Street

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched side gable roof that has asphalt shingles. The exterior has modern siding, modern windows, and a concrete foundation with basement.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
501 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched side gable roof with asphalt shingles and a flat roof addition. The exterior has modern siding, an asymmetrical exterior, and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19





Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
503 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one and a half storey structure with a medium-pitched cross gable roof that is clad in metal. The exterior has modern siding, modern windows, and a concrete foundation. The outbuilding is a modern two car garage.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19





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Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
505 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof, with multiple gables. The roof is clad in asphalt shingles. The exterior has modern siding and windows, a partial wooden entry porch, and wood covering over its foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19





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Client/Project
Enbridge Gas
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
507 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof that has asphalt shingles. The exterior has modern siding, an asymmetrical exterior, a partial wood entry porch and wood over its foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19



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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
511 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a cross gable roof that has a metal chimney and asphalt shingles. The exterior has modern siding, modern windows, and a foundation covered by brick.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
513 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a medium-pitched front facing gable that has asphalt shingles. The exterior has modern siding, an asymmetrical exterior, a partial porch on south elevation, modern windows, and wood covering over its foundation. The out-building is a modern two car garage at rear.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
517 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1930s-1940s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched side gable roof with asphalt shingles. The symmetrical front elevation has a central entrance lanked by two windows, and a partial wood porch with gabled entrance. The exterior has horizontal wood siding, 3/1 windows, wood window surrounds, and a half glass wood panelled entrance door. The residence has wood over its foundation, and a shed roof entrance addition on the south elevation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: This residence is an Ontario verancular structure representative of residential construction during Geraldton's initial years.

Historical or Associative Value: None Identified.

Contextual Value: This property supports the early to mid 20th century character of the area and is physically and historically linked to its surroundings. The structure is also linked to the founding period of Geraldton.

Identified Heritage Attributes: Residence: One storey structure, medium-pitched gable roof, horizontal wood siding, symmetrical front elevation, wood window surrounds, half glass wood paneled entrance door, and 3/1 wood windows.

Identification of Cultural Heritage Value or Interest (CHVI): Yes

Heritage Resource Number: HR-4

Completed by (name): Laura Walter

Date Completed: 2017-07-19





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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
519 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a high-pitched side gable that has asphalt shingles. The exterior has modern siding, modern windows, an asymmetrical exterior, wood over its foundation, and partial wood porches on its west and south elevations. The outbuilding is a modern shed with a front facing gable roof.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

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Client/Project
Enbridge Gas
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
523 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Church

Associated Dates: c. 1950

Relationship to Project: Within Study Area

Description: The property contains a church, the Geraldon Ukrainian Catholic Church. The church appears abandoned, as its windows are boarded up. The church is a one storey with basement structure. It has a high-pitched front facing gable roof with asphalt shingles, and a front (west) elevation tower with onion dome. The exterior has modern siding, cross and louvred wood blind windows, and round headed windows. The front elevation has an enclosed full front porch. The church has a concrete foundation.

The church is a designated heritage property by the Municipality of Greenstone.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: Representative of Ukrainian Catholic Church construction.

Historical or Associative Value: This structure is historically connected to Geraldton's Ukrainian Catholic community.

Contextual Value: The property supports the mid-20th century rural character of the area and is historically linked to its surroundings.

Identified Heritage Attributes: Church: One storey structure, high-pitched front facing gable roof, tower with onion dome, cross, and louvred wood blind windows, round headed windows, and a full front porch.

Identification of Cultural Heritage Value or Interest (CHVI): Yes

Heritage Resource/Landscape Number: HR-5

Completed by (name): Laura Walter

Date Completed: 2017-07-19







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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
601 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low pitched front facing gable roof and metal chimney. The exterior has modern siding and modern windows.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource/Landscape Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19



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Client/Project
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
109 Beamish Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof that has asphalt shingles and brick chimney. The exterior has modern siding, modern windows, and wood over its foundation. The front elevation has a projecting entrance with gable and a partial wood porch.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
107 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1930s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence and modern outbuilding. The residence is a one storey structure with a medium-pitched front facing gable roof with asphalt shingles. The exterior is clad with modern siding and has a mixture of modern windows and 1/1 wood windows. The structure has a projecting entrance with gable, a partial entrance porch, and wood over its foundation. The residence appears abandoned.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19





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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
614 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one and a half storey structure with a low-pitched hip on gable roof with asphalt shingles. The exterior has modern siding, modern windows, and a concrete foundation. The asymmeterical front elevation has a partial entrance porch. The residence has an attached shed roof carport.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19





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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
616 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1940s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure that has asphalt shingled medium-pitched side gable roof with projecting front (east) entrance gable. The exterior has modern siding, modern windows, a partial concrete entrance porch, and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
622 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with an asphalt shingled medium-pitched side gable roof with flat roof addition at rear. The exterior has modern siding, modern windows, a partial entrance porch, an asymmetrical exterior, and an undetermined foundation. The outbuilding is a shed roof garage at rear.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

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Client/Project
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
110 Barton Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a medium-pitched side gable roof with asphalt shingles. The exterior has modern siding, modern windows, a partial wood entrance porch, and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19





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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
107 Barton Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern out-building. The residence is a one storey structure with a low-pitched front facing gable roof with asphalt shingles. The asymmetrical exterior has modern siding, modern windows, and siding over its foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19





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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
712 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched side gable roof with asphalt shingles. The exterior has modern siding and windows. The residence has a shed roof entrance on its north elevation and a concrete foundation with basement.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

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Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
714 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a high-pitched side gable roof that is clad with metal. The exterior has modern siding and windows, and a concrete foundation. The front elevation has a partial wood entrance porch with gable peak. The outbuilding at the rear has a low-pitched front facing gable roof.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes:

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19



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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
718 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a medium-pitched side gable roof that is clad in metal. The residence has a flat roof addition at its rear and a front facing gable peak. The exterior has modern siding, modern windows, and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19





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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
722 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched hip roof with asphalt shingles. The exterior has modern siding and windows, a partial concrete entrance porch, and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19





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Client/Project
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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
106 Wardrope Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched cross gable roof that has a shed roof addition on its south elevation and asphalt shingles. The exterior has modern siding and windows, a partial wood entrance porch, and siding over its foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource/Landscape Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19







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Client/Project
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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
109 Wardrope Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1960s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The structure is possibly two attached modular home components. The residence is a one storey structure with a low-pitched hip roof with asphalt shingles. The exterior has modern siding and windows, a partial wood entrance porch on east elevation, and siding over its foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

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Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
810 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a medium-pitched cross gable roof with asphalt shingles. The exterior has modern siding and windows and an undetermined foundation. The residence appears abandoned. The outbuilding at rear of property is partially collapsed.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
818 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a low-pitched gable roof. The exterior has modern siding, modern stonework and modern windows. The residence has an undetermined foundaiton. The out-building is a large modern one car garage.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19





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Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
110 McKenzie Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a medium-pitched cross gable roof with asphalt shingles and a concrete block chimney. The residence has a projecting hip on gable entrance on its south elevation. The exterior has concrete asbestos siding, wood window surrounds, and a concrete foundation. The outbuilding is a single car garage at rear of property.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource/Landscape Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19





Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
108 McKenzie Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1930s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched hip roof, with front gable dormer, and shed roof rear addition. The roof is clad in asphalt shingles and has a brick chimney. The exterior has horizontal wood siding, and a mixture of modern windows and 1/1 wood windows. The residence has a partial wood entrance porch with pediment, and wood over covering its foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: This residence is an Ontario verancular structure representative of residential construction during Geraldton's initial years.

Historical or Associative Value: None Identified.

Contextual Value: This property supports the early to mid 20th century character of the area and is physically and historically linked to its surroundings.



Identified Heritage Attributes: Residence: One storey structure, low-pitched hip roof, gabled dormer, brick chimney, horizontal wood siding, 1/1 wood windows, and partial wood entrance porch with pediment.

Identification of Cultural Heritage Value or Interest (CHVI): Yes

Heritage Resource Number: HR-6

Completed by (name): Laura Walter

Date Completed: 2017-07-19

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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
106 McKenzie Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof that has asphalt shingles. The exterior has modern siding and windows, a partial concrete entrance porch, and a concrete foundation with basement.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19





Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
107 McKenzie Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched hip roof with asphalt shingles. The front (north) elevation has a projecting hipped bay. The exterior is clad in brick and modern siding. The residence has modern windows and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19





Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
109 McKenzie Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched hip roof with asphalt shingles. The exterior is clad in brick and modern siding. The residence has a projecting gabled bay on its front (north) elevation, a partial concrete entrance porch, and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
910 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a low-pitched front facing gable roof with asphalt shingles. The exterior has modern siding and windows, and a modern bay window. The residence has a wrap- around wood porch on its east and north elevations, and an undetermined foundation. The outbuilding is a modern two car garage at rear of property.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

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Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
914 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a medium-pitched front facing gable roof with asphalt shingles. The exterior has modern siding, modern windows, and a concrete foundation. The outbuilding is a shed roof wood garage at rear.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19







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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
912 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof with asphalt shingles. The exterior has modern siding, modern windows, and undetermined foundation with basement.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.



Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
918 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched side gable roof with asphalt shingles. The exterior has concrete asbestos siding, modern windows, and a concrete foundation with basement.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
920 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof with asphalt shingles. The exterior has modern siding and windows, and wood over its foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

Stantec

Client/Project
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
922 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a medium-pitched front facing gable roof with asphalt shingles. The exterior has modern siding and windows, and a partial wood entrance porch. The residence has an undetermined foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
106 Clarke Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a medium-pitched gable roof clad in metal. The exterior has modern siding and windows, a partial wood entrance porch on the east elevation, and siding over its foundation. The outbuilding is a garage used for commercial purposes under the name 'Roy's Custom Repair.'



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

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Client/Project
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
107 Clarke Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a medium-pitched front facing gable roof with asphalt shingles. The exterior has concrete asbestos siding, a partial wood front entrance porch, modern windows, and a concrete block foundation. The outbuilding is a modern garage located in the rear of the property.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
109 Clarke Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a medium-pitched cross gable roof that has asphalt shingles, and a brick clad chimney. The exterior has modern siding and windows, and an undetermined foundation. The outbuilding is a modern garage located at the rear of the property.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19



Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1010 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a medium-pitched cross gable roof with asphalt shingles. The exterior has modern siding and windows, a partial wood entrance porch, and concrete block foundation. The outbuilding is a modern garage at rear of property. The structures are surrounded by mature trees.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19





Stantec

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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1014 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1930s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched cross gable roof with asphalt shingles. The exterior has modern siding and windows, an entrance pediment, and undetermined foundation. The residence appears abandoned.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1016 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a front facing gable roof. The exterior is clad in brick and modern siding. The residence has a partial concrete entrance porch, and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1018 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched hip roof and projecting low- pitched front facing gable. The roof is clad in asphalt shingles. The exterior of the building is clad in brick, and has modern windows and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1020 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a low-pitched front facing gable roof with asphalt shingles. The exterior has modern siding and windows, and partial wood entrance porches on its south and east elevations. The residence has a concrete foundation. The outbuilding is a modern one car garage at rear of property.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19







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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1026 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a low-pitched cross gable roof with asphalt shingles. The exterior has modern siding and windows, and an undetermined foundation. The outbuilding is a low -pitched front facing gable building with wooden siding.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-19

Stantec

Client/Project
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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
104 Second Avenue Northwest

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Church

Associated Dates: 1969

Relationship to Project: Within Study Area

Description: This property contains St. Theresa's Parish, a Roman Catholic Church. The church has a steeply-pitched gable roof with wide eaves and asphalt shingles. The structure has a bell tower with a steeply-pitched steeple topped with a cross, on its southeast corner. The east elevation of the tower has a large cross. The buff brick exterior has a decorative horizontal band, and modern windows. The front (east) elevation has a concrete entrance porch and wooden wheelchair access ramp. The church has a concrete foundation.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: Representative of mid-20th century style church construction.

Historical or Associative Value: This church opened in 1969 and likely replaced an earlier church on the site. The Congregation was founded in Geraldton in 1935.

Contextual Value: The church is historically and visually linked to its surroundings and is a landmark structure in the community.

Identified Heritage Attributes: Steeply pitched gable roof, wide eaves, buff brick exterior, bell tower, decorative bands.

Identification of Cultural Heritage Value or Interest (CHVI): Yes

Heritage Resource Number: HR-7

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
100 Third Avenue Northwest

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Commercial Building

Associated Dates: 1960s-1970s

Relationship to Project: Within Study Area

Description: This property contains a commercial building. The building is occupied by 49 Degrees North. The commercial building is a one storey structure with a medium-pitched gable roof with modern asphalt shingles, four ventilators and a brick chimney. The exterior has an asymmetrical front elevation, with modern siding and modern windows. The structure's foundation is covered by plywood. The building has a rear gabled roof addition.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18



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Client/Project
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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
306 Third Street North

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Commercial Building

Associated Dates: 1960s-1970s

Relationship to Project: Within Study Area

Description: This property contains a commercial building and an outbuilding. The commercial building is a one storey structure with a low-pitched hip roof that has two modern ventilators, and asphalt shingles. The exterior has modern siding and windows, and a concrete foundation. The building has a small gable roofed addition on its north elevation. The outbuilding is a modern garage.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18



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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
104 Second Avenue Northwest

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Other - See Description

Associated Dates: 1935

Relationship to Project: Within Study Area

Description: This property contains the parish office for St. Theresa's Parish. The building is a two storey structure with a medium-pitched hipped roof that has modern asphalt shingles. The symmetrical front (south) elevation has a central entrance flanked by windows, with a entrance pediment and partial wood porch. The exterior is clad in modern siding and has modern windows. The building has a bay window on its west elevation, and additions on its east and north elevations. The buildings has a concrete foundation.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: The buildings is representative of a Ontario vernacular structure.

Historical or Associative Value: Connected to St. Theresa's Parish and the community of Geraldton. The church was founded in 1935 as part of the Diocese of Hearst.

Contextual Value: This property supports the early 20th century character of the area and is physically and historically linked to its surroundings.

Identified Heritage Attributes: Parish building: Two storey structure, medium-pitched hip roof, and symmetrical front elevation.

Identification of Cultural Heritage Value or Interest (CHVI): Yes

Heritage Resource Number: HR-8

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
108 Second Street North

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern out-building. The residence has separate rental units. The residence is a two storey structure with a low-pitched gable roof that has asphalt shingles. The exterior has modern siding and windows, a symmetrical front elevation, and a shed roof enclosed porch. The residence's foundation is covered with plywood.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
106 Third Avenue Northwest

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched gable roof. The exterior is clad in stucco and faux stone. The residence has modern windows and a shed roof concrete addition. The structure has a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
207 Second Street North

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a steeply-pitched front facing gable roof that is clad in metal. The exterior has an asymmetrical front elevation with a partial wood porch. The residence has modern windows and modern siding, and decorative siding over its foundation.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
105 Second Avenue North West

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof with asphalt shingles. The exterior has an asymmetrical front elevation, with modern windows and modern siding. The residence has a shed roof enclosed entrance porch and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
104 First Avenue Northwest

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Commercial Building

Associated Dates: 1940s-1950s

Relationship to Project: Within the Study Area

Description: This property contains a commercial building. Canada Post and a fitness center are current occupants. The commercial building is a two storey structure with a flat roof. The exterior is clad in red brick. The building has modern windows and a concrete foundation. The front (south) elevation has a full concrete entrance porch with ramps.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: Representative of mid-20th century Ontario vernacular post office with International Style design influences.

Historical or Associative Value: The post office was established in Geraldton in 1935

Contextual Value: The post office maintains and supports the mid 20th century character of the Town of Geraldton. It is physically, functionally, historically, and visually linked to its surroundings.



Identified Heritage Attributes: Commercial Building: Two storey structure with flat roof.

Identification of Cultural Heritage Value or Interest (CHVI): Yes

Heritage Resource Number: HR-9

Completed by (name): Frank Smith

Date Completed: 2017-07-18



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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
104 First Avenue Northeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Commercial Building

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a commercial building, an attached residence, and an outbuilding. The building is occupied by Jo-Anne's Flower Boutique and Pet Supplies. The front commercial building is a one storey structure with a low-pitched front facing gable roof, with asphalt shingles, and a metal chimney. The front elevation has a rectangular and curved parapet extending above the roofline. The exterior has modern windows and siding. The building has a concrete stoop and a concrete foundation. The rear attached residence is a one and a half storey structure with a saltbox side. The residence's exterior has modern siding and modern windows. The outbuilding is a small one storey structure with a gable roof.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18





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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
101 Second Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern out-building. The residence is a one storey structure with a low-pitched hip roof with asphalt shingles and a metal chimney. The exterior has an asymmetrical front elevation and is clad in modern siding. The residence's foundation is clad in stucco.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
107 Second Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1970s?

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched front facing gable roof and has a shed roof addition. The exterior has modern siding, modern windows, and a partial wooden entrance porch. The residence's foundation is covered with siding.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18



Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
111 Second Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and an outbuilding. The residence is a one storey structure with a low-pitched gable roof that has asphalt shingles. The exterior has modern siding, modern windows, and a foundation covered by siding. The outbuilding is modern and located at the rear of the property.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
214 Second Avenue Southeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1930s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one and a half storey structure with a medium-pitched front facing gable roof, with a gabled dormer. The symmetrical front elevation has an enclosed full width porch. The exterior has modern windows and siding, and the foundation is covered with siding.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified..

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
212 Second Avenue Southeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched front facing gable roof. The building has a gabled roof addition on its east elevation. The exterior has modern windows and siding, and a partial entry porch. The residence's foundation is covered with siding.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
206 Second Avenue Southeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched side gable roof that is clad in metal. The asymmetrical front elevation has a partial entrance porch. The exterior has modern windows and siding, and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18



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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
204 Second Avenue Southeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1930s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a high-pitched front facing gable roof. The exterior of the residence has modern windows and siding, and a concrete foundation. The asymmetrical front (south) elevation has a partial wood entrance porch.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes:

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
202 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched side gable roof with asphalt shingles. The exterior has a modern bay window, modern windows and siding, and a concrete foundation. The asymmetrical front elevation has a partial wood porch.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
201 Second Avenue Southeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched shed roof. The front (north) elevation has an enclosed entrance porch. The structure has modern siding, and windows. The west elevation has a partial entrance porch. The residence's foundation is covered by wood.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
108 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one and a half storey structure with a low-pitched front facing gable roof. The exterior has modern windows and siding, and a concrete block foundation. The front (east) elevation has a partial wood porch.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
106 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1930s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched front facing gable roof with wide eaves. The exterior is clad in stucco, and has a mixture of modern windows and wood multi-paned windows. The front entrance door is set within a wood frame with wood sidelights. The residence has an undetermined foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18



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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
111 Second Avenue Southeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched cross gable roof. The exterior is clad in brick and modern siding, and has modern windows. The front (north) elevation has a partial brick and concrete porch with arches. The foundation of the residence is covered with wood.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18



Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
200 Third Avenue Southeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1930s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence and an outbuilding. The residence is a one and a half storey structure with a steeply-pitched front facing gable roof, that is clad in metal. The symmetrical front (south) elevation has a central projecting enclosed entrance. The exterior is clad in modern siding and has modern windows. The residence's foundation is covered by wood. The outbuilding has a side gable roof and is clad in modern siding.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

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Client/Project
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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
201 Third Avenue Southeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a medium-pitched multiple gabled roof. The roof is clad in asphalt shingles and has a metal chimney. The exterior has modern windows and siding. The residence's foundation is covered with wood.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
203 Fourth Avenue Southeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a medium-pitched front facing gable roof with asphalt shingles and a brick clad chimney. The front elevation has an enclosed front porch with a gable roof. The exterior is clad in modern siding and has modern windows, and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18





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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
401 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a two storey structure with a medium-pitched front facing gable roof. The exterior has modern windows and siding, and a concrete foundation. The symmetrical front (west) elevation has a partial wood porch.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18



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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
510 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof with asphalt shingles and a metal chimney. The front elevation has an enclosed entrance porch with a gable roof. The exterior is clad in stucco and has modern windows, and a stucco clad foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
405 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a medium-pitched cross gable roof, with asphalt shingles, and a metal chimney. The exterior has modern windows and siding, and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
409 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched side gable roof with asphalt shingles and a metal chimney. The exterior has a modern bay window, modern windows, modern siding, and a wooden partial entrance porch. The structure has a concrete foundation with basement.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
411 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a low-pitched front facing gable roof with asphalt shingles. The south elevation has a projecting gabled bay. The exterior has modern siding, modern windows, a partial wooden entrance porch and a foundation covered by wood.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18



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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
419 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched hip roof with asphalt shingles and two ventilators. The exterior has modern windows and modern siding. The property has several vegetable gardens and a greenhouse.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18





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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
417 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern out-building. The residence is a one storey structure with a low-pitched front facing gable roof. The exterior has modern siding and modern windows. The front (west) elevation has a partial wood entrance porch. The residence's foundation is covered in wood.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
201 Fourth Avenue Southeast

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is one storey with a steeply-pitched cross gable roof with asphalt shingles. The exterior has modern siding, modern windows, and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
108 Hogarth Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one and a half storey structure with a medium-pitched front facing gable roof with asphalt shingles. The exterior has an asymmetrical front elevation, modern windows, and modern siding. The residence's foundation is covered with wood.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
111 Hogarth Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched front facing gable roof with an attached shed roof one car garage. The exterior has modern siding and modern windows. The residence appears abandoned and is surrounded by unmaintained vegetation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18



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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
410 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1930s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence and an outbuilding. The residence is a one and a half story structure with a medium-pitched front facing gable roof with asphalt shingles. The exterior has modern windows, modern siding, and its foundation is covered with wood. The asymmetrical front elevation has a central entrance and a partial wood porch. The outbuilding is a garage with a medium-pitched front facing gable roof.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
408 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence has a medium-pitched front facing gable roof with a ventilator, metal chimney, and asphalt shingles. The front (east) elevation has an enclosed entrance porch with a gable roof. The exterior has modern windows, modern siding, and a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18





Stantec

Client/Project
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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
540 Michael Power Boulevard

Former Township or County: Errington Township

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1930s

Relationship to Project: Within Study Area

Description: The property contains a residence and modern outbuildings. The residence is a two storey structure with high-pitched hip roof that is clad in metal. The residence has a foursquare plan. The front (east) elevation has an enclosed entrance porch. The exterior has modern siding and windows. The residence has an undetermined foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: Representative of an early 20th century Ontario vernacular residence. It is a rare example of a two storey residential construction in the region and a rare survivor of 1930s nursing accommodations.

Historical or Associative Value: As the first nurses residence, construction of the residence is directly associated with early medical care in the region, particularly the first hospital. The residence was constructed on mine property in close vicinity to mining activities and reflects the increased concern for the wellbeing and health of employees in the mining industry, a significant theme in the community.

Contextual Value: The residence was constructed near mining activity and as a result is historically linked to its surroundings.

Identified Heritage Attributes: Residence: Two storey structure, high-pitched hip roof, and foursquare plan.

Identification of Cultural Heritage Value or Interest (CHVI): Yes

Heritage Resource/Landscape Number: HR-10

Completed by (name): Frank Smith

Date Completed: 2017-07-18

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Enbridge Gas
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
536 Michael Power Boulevard



Former Township or County: Errington Township

Municipality: Greenstone

Resource Type: Commercial Building

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a commercial building. The commercial building is a one storey structure with a shed roof. The exterior has modern siding and modern windows. The structure has a rear shed roof addition.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
124 Arena Road

Former Township or County: Errington Township

Municipality: Greenstone

Resource Type: Commercial Building

Associated Dates: 1930s

Relationship to Project: Within Study Area

Description: This property contains a commercial building. The building is an arena converted into Castle Building Centers. The building has gambrel roof with ventilators and is clad in metal. The structure has an attached shed roof addition on south and east elevations. The exterior has modern windows and modern siding. The building has an undetermined foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: Rare of example of a community building in study area dating to the 1930s.

Historical or Associative Value: This structure served as an arena and was a focal point of community activity until its conversion into a store.

Contextual Value: The arena was constructed near mining activity and as a result is historically linked to its surroundings.

Identified Heritage Attributes: Commerical building: Gambrel roof and ventilators.

Identification of Cultural Heritage Value or Interest (CHVI): Yes

Heritage Resource Number: HR-11

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1 Rosedale Point

Former Township or County: Errington Township

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1930s-1940s

Relationship to Project: Within Study Area

Description: This property contains a residence and modern outbuildings. The residence is a one storey structure with a medium-pitched front facing gable roof with asphalt shingles and a metal chimney. The front (west) elevation has an enclosed entrance porch with a gable roof and a partial wood porch. The exterior has horizontal wood siding and a mixture of modern and wood 8 pane fixed windows. The residence has an attached shed roof addition with modern siding. The structure has an undetermined foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: Representative of early to mid-20th century Ontario vernacular residence.

Historical or Associative Value: The structure is connected to the settlement resulting from mining activities.

Contextual Value: The residence was constructed near mining activity and as a result is historically linked to its surroundings.

Identified Heritage Attributes: Residence: One storey structure, medium-pitched front facing gable roof, horizontal wood siding, front enclosed entrance with gable roof, and 8 pane fixed windows.

Identification of Cultural Heritage Value or Interest (CHVI): Yes

Heritage Resource/Landscape Number: HR-12

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
6 and 8 Rosedale Point Road

Former Township or County: Errington Township

Municipality: Greenstone

Resource Type: Residence

Associated Dates: c. 1934

Relationship to Project: Within Study Area

Description: This property contains a duplex residence. The residence is a two storey structure with a medium-pitched hip roof with a central gabled dormer and asphalt shingles. The exterior has modern siding, modern windows, and wood covering its foundation. The symmetrical front (south) elevation has two partial porches with entrance gables.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: Representative of early to mid-20th century Ontario vernacular residence. One of the few two storey residential homes in study area.

Historical or Associative Value: Associated with the expansion of Little Long Lac Mine and growth as a result of mining activities.

Contextual Value: The residence was constructed near mining activity and as a result is historically linked to its surroundings.

Identified Heritage Attributes: Residence: Two storey structure, medium-pitched hip roof, central gabled dormer, and symmetrical front elevation.

Identification of Cultural Heritage Value or Interest (CHVI): Yes

Heritage Resource Number: HR-13

Completed by (name): Laura Walter

Date Completed: 2017-07-18



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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
545 Michael Power Boulevard

Former Township or County: Errington Township

Municipality: Greenstone

Resource Type: Residence and Commercial Building

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and garage used as a commercial building. The residence is a one storey structure with a medium-pitched side gable roof that is clad in metal. The exterior has modern siding and windows. The residence has an undetermined foundation. The garage is a large wood frame structure with a low pitched gable roof and a sign for Courtesy Freight Systems.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
543 Michael Power Boulevard

Former Township or County: Errington Township

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1948-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a medium-pitched front facing gable roof and asphalt shingles. The exterior has modern siding and modern windows. The foundation is undetermined. The outbuilding is a one car garage with a low-pitched gable roof.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1710 Main Street

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1934-1947

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a medium-pitched front facing gable roof, that has asphalt shingles. The residence has a rear two storey addition with a medium-pitched gable roof. The exterior has a symmetrical front elevation, modern windows, and modern siding. The residence's foundation is covered by wood.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1510 Main Street

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Commercial Building

Associated Dates: 1934-1947

Relationship to Project: Within Study Area

Description: This property contains a commercial building and a modern outbuilding. The building is occupied by the South End Convenience. The building is a two storey structure with a medium-pitched front facing gable roof with asphalt shingles. The exterior has modern siding, modern windows, and a concrete foundation. The symmetrical front (east) elevation has a central entrance. The south elevation has a partial entrance porch and entrance gable.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1400 Main Street

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Commercial Building

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a commercial building. The building is occupied by Cloutter Contractor. The building is a two storey structure with a flat roof. The exterior is clad in brick, and has decorative banding between floors, and modern windows with concrete sills. The building has an asymmetrical front elevation and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1327 Main Street

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1930s-1947

Relationship to Project: Within Study Area

Description: This property contains a residence and modern outbuilding. The residence is a one storey structure with a medium-pitched front facing gable roof with a concrete block chimney. The exterior is clad with modern siding and has modern windows. The front (west) elevation has a central entrance with a covered partial entrance porch. The south elevation has a shed roof addition. The residence has a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1705 Main Street

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1947-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a medium-pitched side gable roof, gabled dormer, asphalt shingles, and concrete block chimney. The rear of the building has a shed roof addition. The exterior has modern siding and modern windows. The residence's foundation is undetermined.





Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
109 Benner Avenue

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1934-1947

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched cross gable roof with asphalt shingles. The exterior is clad in plywood painted blue. The residence has wood window surrounds, modern windows, a partial wood entrance porch, and wood covering its foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
111 Benner Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1947-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched side gable roof. The exterior has modern siding, a wooden front entry porch, modern windows, and siding over its foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
111 Greer Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a medium-pitched front facing gable roof with a concrete block chimney. The exterior has modern siding, wood window surrounds, two partial wood entrance porches, and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18



Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
312 Benner Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low pitched front facing gable roof. The exterior has modern siding, modern windows, wood window surrounds, and a concrete block foundation. The property has a mature spruce tree and property that appears to be unmaintained.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identifed.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
1318 Benner Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low pitched hip roof that has asphalt shingles. The exterior has modern siding, modern windows, and a concrete block foundation. The south elevation has an attached carport.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
110 Benner Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched front facing gable roof. The exterior has modern siding and modern windows. The residence has an undetermined foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18



Stantec

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
108 Benner Avenue

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a medium-pitched front facing gable roof, that has asphalt shingles. The exterior has modern siding and modern windows. The residence has a concrete foundation with basement.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18



Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
107 Benner Avenue East



Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1934-1947

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is one storey structure with a low-pitched front facing gable roof that has three shed dormers, asphalt shingles, and a brick chimney. The exterior has modern siding, with a mixture of modern windows and wood windows, including 6/1 wood windows. The front (north) elevation has an enclosed entrance porch with a gable roof. The residence has a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
122 John Avenue

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1947-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a two storey structure with a medium-pitched side gable roof that has asphalt shingles and a concrete block chimney. The exterior has modern siding, modern windows, and an undetermined foundation. The front (south) elevation has a full width covered entrance porch.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
117 John Avenue

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched side gable roof and modern saltbox side. The exterior has modern siding, modern windows, a partial wooden entrance porch, and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
114 John Avenue

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a low-pitched front facing gable roof. The exterior has modern siding, modern windows, and siding over its foundation. The symmetrical front elevation has a central entrance with a partial wood entrance porch.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
112 John Avenue

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1947-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof that has asphalt shingles. The exterior has modern siding, wood window surrounds, modern windows, a partial wooden entry porch and a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
110 John Avenue

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1947-1970s?

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a low-pitched side gable roof, that has asphalt shingles. The exterior has modern siding and modern windows. The residence has a rear shed roof addition and an undetermined foundation. The property has mature trees and vegetation that obscure front elevation of the residence.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Laura Walter

Date Completed: 2017-07-18

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
109 Hogarth Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof, that has asphalt shingles. The exterior has modern windows, modern siding, and a partial wooden entry porch. The residence has an attached shed roof garage and its foundation is covered by siding.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
510 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof that has asphalt shingles and a brick chimney. The exterior has modern windows with wooden window surrounds, and modern siding. The front (east) elevation has an enclosed entrance porch with a gabled roof, and a partial wood porch. The residence has a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
512 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1930s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a medium-pitched front facing gable roof that has asphalt shingles and a brick chimney. The exterior has modern siding and windows, and the foundation is covered in wood. The residence has a rear shed roof addition. The outbuilding is a wood one storey side gable roof structure.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19





Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
514 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched cross gable roof, that has asphalt shingles. The exterior has modern siding and windows. The residence has an entry porch addition on its south elevation and an undetermined foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
516 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof that has asphalt shingles. The exterior has modern windows, modern siding, and a concrete foundation. The front (east) elevation has an enclosed front porch with a gable roof, and a partial wood entrance porch.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
518 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof that is clad in metal and has a metal chimney. The exterior has modern windows, modern siding, and a foundation covered in plywood. The residence has evidence of fire damage.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
522 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a medium-pitched cross gable roof that has asphalt shingles. The exterior has modern windows, modern siding, a wooden deck, and undetermined foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19



Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
108 Beamish Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof that has asphalt shingles. The exterior has modern siding, modern windows, a partial wood entry porch and its foundation is covered by wood.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
106 Beamish Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof. The exterior has modern windows, modern siding, and a partial wooden entry porch. The residence's foundation is covered with wood.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
111 Beamish Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1930s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one and a half storey structure with a high-pitched front facing gable roof that has shed dormers. The exterior has modern siding and modern windows. The symmetrical front (north) elevation has a central entrance with a full wood entrance porch. The east elevation has gabled roof addition. The residence has a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19



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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
610 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one and a half storey structure with a high-pitched front facing gable roof that has asphalt shingles and a modern ventilator. The exterior has modern siding and windows. The front (east) elevation has an enclosed full width porch. The residence has a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19



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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
612 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched hip roof with two gabled eyebrow dormers. The exterior is clad in brick and modern siding, and has modern windows. The residence has a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19



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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
618 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is one and a half storey structure with a steeply-pitched side gable roof that has asphalt shingles. The asymmetrical front (east) elevation has an offset covered entrance. The exterior is clad in modern siding and has modern windows. The residence has a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
620 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is one and a half storey structure with a steeply-pitched side gable roof that is clad with asphalt shingles. The exterior has modern siding and modern windows. The residence has a concrete foundation with basement. The front (east) elevation has a front facing gable and an enclosed entrance porch with a gable roof.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
624 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a medium-pitched side gable roof that has a brick chimney and asphalt shingles. The exterior has a partial wooden porch, modern siding, and modern windows. The residence has a concrete foundation. The property has a hedgerow.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19



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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
106 Barton Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched hip roof that has asphalt shingles and a concrete block chimney. The exterior has modern windows and modern siding. The residence has a concrete foundation with basement. The property has mature coniferous trees.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
111 Barton Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a medium-pitched side gable roof that has asphalt shingles. The exterior has modern windows, modern siding, a concrete partial entrance porch and concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19





Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
716 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and outbuilding. The residence is a one storey structure with a steeply-pitched side gable roof that has asphalt shingles. The exterior has modern windows, modern siding, and a wood partial entry porch. The residence has a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19



Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
720 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched side gable roof that has asphalt shingles. The exterior has modern windows, modern siding, and a concrete foundation. The front (east) elevation has an enclosed entrance porch with a gable roof.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
110 Wardrope Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitch hip roof that has asphalt shingles and a brick chimney. The exterior has modern windows, modern siding, a partial wooden entrance porch, and a concrete foundation. The residence has a rear attached shed roof garage.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19





Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
111 Wardrope Avenue East



Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Commercial Building

Associated Dates: 1940s-1960s

Relationship to Project: Within Study Area

Description: This property contains a commercial building. The commercial building is a one storey structure with a medium-pitched irregular roof that has asphalt shingles. The front (north) elevation parapet has been filled in with the rest of the roofline. The exterior has modern siding and modern windows. The front elevation has a central entrance. The structure has a concrete foundation and a rear shed roof addition. The structure appears to be abandoned.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource/Landscape Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
812 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a medium-pitched cross gable roof that has asphalt shingles. The exterior has modern windows, modern siding, and a partial wood entrance porch. The residence's foundation is covered with siding.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
822 First Street East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern out-building. The residence is a one storey structure with a low-pitched front facing gable roof. The exterior has modern windows and modern siding. The north elevation has a partial wood porch. The residence has a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19



Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
202 McKenzie Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a high-pitched front facing gable roof. The exterior is clad in brick, and has modern windows, set within brick surrounds and sills. The asymmetrical front (south) elevation has an enclosed front entrance porch. The residence has a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource/Landscape Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
204 McKenzie Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1960s-1970s

Relationship to Project: Within Study Area

Description: The property contains a residence. The residence is a one storey structure with a low-pitched hip roof that has a brick chimney. The exterior is clad in brick and stucco and has modern windows. The residence has a concrete foundation with a basement.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None identified

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
203 McKenzie Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1960s-1970s

Relationship to Project: Within Study Area

Description: The property contains a residence. The residence is a one storey structure with a medium-pitched cross hip roof that has asphalt shingles. The exterior is clad in modern siding and has modern windows and doors. The residence has wood over its foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

Stantec

Client/Project
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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
200 Jackson Avenue

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with low-pitched side gable roof that has asphalt shingles. The exterior has modern windows, modern siding, a partial wood entrance porch and a concrete foundation with basement.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
205 Jackson Avenue

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one and a half storey structure with a medium-pitched side gable roof that has asphalt shingles. The exterior has modern windows, modern siding, and modern brick cladding. The residence has an undetermined foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
201 Jackson Avenue

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a medium-pitched gable roof that has a wide eaves and asphalt shingles. The exterior has modern windows and siding, with buff brick and red brick cladding. The residence has a concrete foundation.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

Stantec

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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
200 Clarke Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a medium-pitched gable roof, that has a wide eaves, and asphalt shingles. The exterior has modern siding and windows, and a partial wood entrance porch. The residence has a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19



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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
207 Clarke Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1930s-1950s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a low-pitched front facing gable roof. The exterior has modern windows and modern siding. The foundation is covered by plywood.



Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19

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Client/Project
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Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
205 Clarke Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1960s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a medium-pitched front facing gable roof that has a metal chimney. The exterior has modern windows, a partial wooden front entry porch, and modern siding. The foundation is covered in plywood.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19



Stantec

Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
201 Clarke Avenue East

Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence and a modern outbuilding. The residence is a one storey structure with a medium- pitched hip roof, that has a metal chimney and asphalt shingles. The exterior has modern windows and modern siding. The foundation of the residence is undetermined.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-19





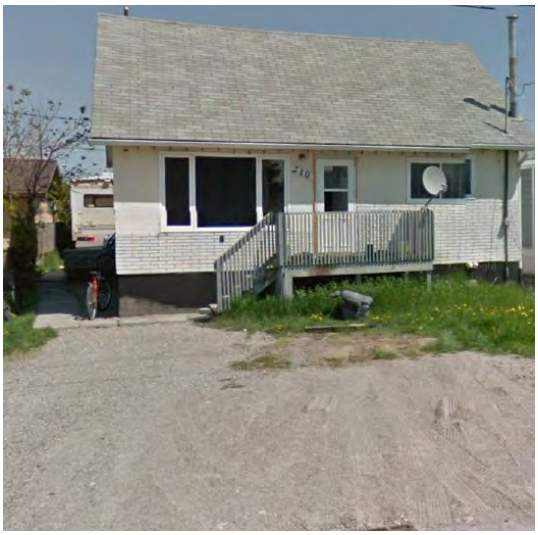
Stantec

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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:
210 Second Avenue Southeast



Former Township or County: Geraldton

Municipality: Greenstone

Resource Type: Residence

Associated Dates: 1950s-1970s

Relationship to Project: Within Study Area

Description: This property contains a residence. The residence is a one storey structure with a steeply-pitched side gable roof that has asphalt shingles. The exterior is clad in modern siding, and has modern windows. The residence has a concrete foundation.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: None Identified.

Historical or Associative Value: None Identified.

Contextual Value: None Identified.

Identified Heritage Attributes: None Identified.

Identification of Cultural Heritage Value or Interest (CHVI): No

Heritage Resource Number: N/A

Completed by (name): Frank Smith

Date Completed: 2017-07-28

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Client/Project
Enbridge Gas
160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

Municipal Address:

N/A Rosedale Point Streetscape

Former Township or County: Errington Township

Municipality: Greenstone

Resource Type: Streetscape

Associated Dates: 1930s-1940s

Relationship to Project: Within Study Area

Description: This streetscape contains residences constructed between 1930 and 1940. Residences are of various early to mid-20th century architecture. Rosedale is gravel roadway.

Evaluation of Cultural Heritage Value or Interest According to O. Reg. 9/06:

Design or Physical Value: Residences in the streetscape are representative of early to mid-20th century Ontario vernacular structures.

Historical or Associative Value: Structures are connected to the settlement resulting from mining activities.

Contextual Value: The streetscape developed near mining activities and is historically linked to its surroundings.

Identified Heritage Attributes: Streetscape: residential and commercial buildings that date to the initial settlement of Geraldton.

Identification of Cultural Heritage Value or Interest (CHVI): Yes

Heritage Resource Number: HR-14

Completed by (name): Laura Walter

Date Completed: 2017-07-28





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160960975

Figure
A

Title
Cultural Heritage Resource / Landscape Record Form

APPENDIX F
STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT REPORT

Ministry of Tourism, Culture and Sport

Archaeology Programs Unit
Programs and Services Branch
Culture Division
401 Bay Street, Suite 1700
Toronto ON M7A 0A7
Tel.: (807) 475-1628
Email: Paige.Campbell@ontario.ca

Ministère du Tourisme, de la Culture et du Sport

Unité des programmes d'archéologie
Direction des programmes et des services
Division de culture
401, rue Bay, bureau 1700
Toronto ON M7A 0A7
Tél. : (807) 475-1628
Email: Paige.Campbell@ontario.ca

Ontario

Nov 16, 2018

Arthur Figura (P083)
Stantec Consulting
600 - 171 Queens London ON N6A 5J7

RE: Review and Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Greenstone Pipeline Project: Stage 1 Archaeological Assessment Report", Dated Jul 12, 2018, Filed with MTCS Toronto Office on Oct 30, 2018, MTCS Project Information Form Number P083-0321-2018, MTCS File Number 0004574

Dear Mr. Figura:

This office has reviewed the above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c 0.18.[1] This review has been carried out in order to determine whether the licensed professional consultant archaeologist has met the terms and conditions of their licence, that the licensee assessed the property and documented archaeological resources using a process that accords with the 2011 Standards and Guidelines for Consultant Archaeologists set by the ministry, and that the archaeological fieldwork and report recommendations are consistent with the conservation, protection and preservation of the cultural heritage of Ontario.

The report documents the assessment of the study area as depicted in Maps 4-A to 4-J of the above titled report and recommends the following:

The Stage 1 background research has resulted in the determination that Stage 2 archaeological assessment will be required. As per Section 1.3.3 of the Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011b), the Stage 2 archaeological assessment will follow alternate survey standards specific to special conditions of the Canadian Shield, where the study area is located. The Stage 2 archaeological assessment will follow the alternative strategies outlined in Section 2.1.5 of the Standard and Guidelines for Consultant Archaeologists (Government of Ontario 2011b) as follows:

•test pit survey is required between 0 to 50 metres from a modern water source at intervals of five metres and a survey is not required past 50 metres.

•for features of archaeological potential other than modern water sources, such as the known transportation routes in the area, test pit survey is required in intervals of five metres 0 to 50 metres from the feature. From 50 to 150 metres from the feature, test pit survey intervals can be a maximum of 10 metres. Survey is not required beyond 150 metres.

Further, the study area within the Geraldton Townsite may have been be affected by the town's development and RoW construction, however further work is required to confirm the extent of this potential disturbance. Therefore, test pit survey at ten metre intervals within the townsite is also recommended to

document the extent of any modern disturbance, as per Sections 2.1.8 of the Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011b). In areas where previous disturbance cannot be confirmed the survey interval will be reduced to 5 metres.
All test pit survey will involve excavating test pits that are approximately 30 centimetres in diameter and excavated five centimetres into sterile subsoil. The soils will be examined for stratigraphy, cultural features, or evidence of fill. All soil will be screened through six millimetre mesh hardware cloth to facilitate the recovery of small artifacts and then used to backfill the pit.
Finally, the remainder of the study area does not retain archaeological potential and therefore no further archaeological fieldwork is required as noted on Figure 4-A to 4-J.
The MTCS is asked to review the results presented and to accept this report into the Ontario Provincial Register of Archaeological Reports. Additional archaeological assessment is still required and so the 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.

Based on the information contained in the report, the ministry is satisfied that the fieldwork and reporting for the archaeological assessment are consistent with the ministry's 2011 Standards and Guidelines for Consultant Archaeologists and the terms and conditions for archaeological licences. This report has been entered into the Ontario Public Register of Archaeological Reports. Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require any further information regarding this matter, please feel free to contact me.

Sincerely,

Paige Campbell
Archaeology Review Officer

cc. Archaeology Licensing Officer
Norm Dumouchelle,Union Gas
Zora Crnojacki,Ontario Energy Board

[1]In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

Greenstone Pipeline Project: Stage 1 Archaeological Assessment Report

ORIGINAL REPORT



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July 12, 2018

Sign-off Sheet

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Executive Summary

To secure the continued reliable delivery of natural gas and to serve a growing demand for affordable natural gas, Union Gas Limited (Union Gas) is proposing to construct a new 6-inch (15.24 centimetre) diameter steel natural gas pipeline within the Municipality of Greenstone, Ontario (the Project). The 14.3 kilometre (km) pipeline would commence at the existing Union Gas Valve Site located 3.5 km north of Geraldton, Ontario which is adjacent to the TransCanada pipeline. The proposed pipeline terminates at the planned Greenstone Gold Mines processing facility south of TransCanada Highway 11, between Lahtis Road and Hardrock Road.

Union Gas retained Stantec Consulting Ltd. (Stantec) to undertake an environmental study of the construction and operation of the natural gas pipeline. The Ontario Energy Board's (OEB) *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario* (Government of Ontario 2011a) require that an archaeological assessment be conducted in accordance with Ministry of Tourism, Culture and Sport's (MTCS) 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011b) prior to any pipeline activities.

The Stage 1 background research and property inspection resulted in the determination that Stage 2 archaeological assessment will be required. As per Section 1.3.3 of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011b), the Stage 2 archaeological assessment will follow alternate survey standards specific to special conditions of the Canadian Shield, where the study area is located. The Stage 2 archaeological assessment will follow the alternative strategies outlined in Section 2.1.5 of *the Standard and Guidelines for Consultant Archaeologists* (Government of Ontario 2011b) as follows:

- test pit survey is required between 0 to 50 metres from a modern water source at intervals of five metres and a survey is not required past 50 metres.
- for features of archaeological potential other than modern water sources, such as the known transportation routes in the area, test pit survey is required at intervals of five metres 0 to 50 metres from the feature. From 50 to 150 metres from the feature, test pit survey intervals can be a maximum of 10 metres. Survey is not required beyond 150 metres.

Further, the study area within the Geraldton Townsite may have been be affected by the town's development and RoW construction. However, further work is required to confirm the extent of this potential disturbance. Therefore, test pit survey at ten metre intervals within the townsite is also recommended to document the extent of any modern disturbance, as per Sections 2.1.8 of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011b).

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stratigraphy, cultural features, or evidence of fill. All soil will be screened through six millimetre mesh hardware cloth to facilitate the recovery of small artifacts and then used to backfill the pit.

Finally, the remainder of the study area does not retain archaeological potential and therefore no further archaeological fieldwork is required as noted on Figure 6-A to 6-J.

The MTCS is asked to review the results presented and to accept this report into the Ontario Provincial Register of Archaeological Reports. Additional archaeological assessment is still required and so the 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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Abbreviations

ASDB	Ontario Archaeological Sites Database
ER	Environmental Report
MTCS	Ministry of Tourism, Culture and Sport
OEB	Ontario Energy Board
PIF	Project Information Form
PPS	Provincial Policy Statement
RoW	Right-of-Way

1.0 PROJECT CONTEXT

1.1 DEVELOPMENT CONTEXT

To secure the continued reliable delivery of natural gas and to serve a growing demand for affordable natural gas, Union Gas Limited (Union Gas) is proposing to construct a new 6-inch (15.24 centimetre) diameter steel natural gas pipeline within the Municipality of Greenstone, Ontario (the Project). The 14.3 kilometre (km) pipeline would commence at the existing Union Gas Valve Site located 3.5 km north of Geraldton, Ontario which is adjacent to the TransCanada pipeline. The proposed pipeline terminates at the planned Greenstone Gold Mines processing facility south of TransCanada Highway 11, between Lahtis Road and Hardrock Road.

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The objectives of the Stage 1 assessment were to compile available information about the known and potential archaeological heritage resources within the study area and to provide specific direction for the protection, management and/or recovery of these resources. In compliance with the provincial standards and guidelines set out in the MTCS's *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011b), the objectives of the Stage 1 Archaeological Overview/Background Study are as follows:

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

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

- A review of relevant archaeological, historic and environmental literature pertaining to the study area;
- A review of the land use history, including pertinent historic maps; and
- An examination of the Ontario Archaeological Sites Database (ASDB) to determine the presence of known archaeological sites in and around the study area.

1.2 HISTORICAL CONTEXT

1.2.1 Post-contact Aboriginal Resources

"Contact" is typically used as a chronological benchmark is discussing Aboriginal archaeology in Canada and describes the contact between Aboriginal 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 sixteenth century (Loewen and Chapdelaine 2016).

In the 16th and 17th centuries, the region of the study area would have been occupied by Mushkegowuk (Cree) or Anishnawbe (Ojibway) people transiting the Aguasabon River-Long Lake-Kenogami River-Albany River route between Lake Superior and James Bay. At the south of this route, Joseph La France's 1744 *New Map of Part of North America* depicts the "Ouassi Indians" along the north shore of Lake Superior (La France 1744; Figure 2). This map is likely referencing an Anishnawbe Band, eponymously named for the totem of the Bullhead, or '*wassi*', in the Anishinaabemowin language (Rogers and Taylor 1981:242). It is, however, unlikely that the entire north shore of Lake Superior from Thunder Bay to Michipicoten was exclusively occupied by a single band. In the north, the mouth of the Albany River at Fort Albany and Lac-Ste.-Anne were occupied by the Attawapiskat and Weenusk Mushkegowuk Bands (Honigmann 1981:218-219). In general, both Anishnawbe and Mushkegowuk populations living in Northern Ontario would have been sustained primarily by fishing, hunting moose and deer, and to a lesser degree by gathering wild vegetable foods (Heidenreich and Wright 1987; Honigmann 1981:219).

During the 17th century, the interior of northern Ontario between Lake Abitibi and Lake Nipigon is described to have been occupied by a group whom the Algonquins referred to as *Nopiming daje inini*, meaning "the people of the interior land" (Gélinas 1998:54-60). This group is generally accepted to correspond to nomadic Cree bands (Heidenreich and Wright 1987). Gélinas (1998:62) points out that group identities are not so easily assigned given the historic records available, and the *Nopiming daje inini* may have comprised of populations from many former groups who were forced to amalgamate under the political climate of the 17th century.

While contact with Euro-Canadian people may have happened to a minor extent during the 17th century, extensive contact did not reach northern Anishnawbe people until the mid-18th century with the advent of the fur trade in the James Bay and Hudson's Bay watersheds (Rogers and Taylor 1981:231).

During the initial expansion of the fur trade in Northern Ontario, settlement size and population distribution did not shift. Once bands began to congregate along trade routes, joint villages and hunting grounds were set up in relation to fur trading pasts. Due to increased contact, Indigenous technologies, such as Aboriginal ceramics, were phased out and replaced by more convenient European goods, such as brass or copper kettles. In contrast, Aboriginal residences continued to be dome-shaped wigwams constructed from locally available materials (Dawson 1983b).

The expansion of the fur trade led to increased interaction between European and Aboriginal people, and ultimately intermarriage between European men and Aboriginal 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, particularly north of Lake Superior (Métis Nation of Ontario 2016; Stone and Chaput 1978:607-608).

The study area is situated within the District of Thunder Bay, Ontario. It was not subject to surrender or treaty until the 1905-1906 James Bay Treaty Number 9 (Figure 3). Since the area south of the study area had already been surrendered through the Robinson Superior Treaty of 1850, various Aboriginal groups attempted to enter into negotiations for what eventually became James Bay Treaty Number 9 to protect and clarify their rights to the land (Morrison 1986). According to the Canadian government, the treaty was negotiated "for the cession" by the Aboriginal groups of:

> *…all their rights, titles and privileges to the land included in the said territory the limits of which may be described as follows:*
>
> *That portion or tract of land lying and being in the Province of Ontario bounded on the south by the height of land the northern boundary of the territory ceded by the Robinson Superior Treaty of 1850 and the Robinson Huron Treaty of 1850 and bounded on the east and north by the boundaries of the said Province of Ontario as defined by law and on the west by a part of the eastern boundary of the territory ceded by the North West Angle Treaty No. 3.*
>
> (Morris 1943:53)

A number of reserves were also defined in this treaty. The treaty was later subject to a number of adhesions up until 1930 to encompass more Northern Ontario Aboriginal groups. Overall, the treaty allowed for the development of natural resources under the Canadian federal (and provincial) government's supervision, with limited rights provided to the original Aboriginal inhabitants (Morrison 1986).

The Long Lake #58 First Nation and Ginoogaming First Nation are located to the south of the study area, in the vicinity of the Town of Longlac. The Long Lake #58 First Nation is situated along Highway 11 on the northeast shore of Long Lake, adjacent to the town of Longlac (Long Lake #58 First Nation 2016). Oral history of the Long Lake #58 First Nation identifies that this group has long ties to the land in this area that date to "time immemorial" (Long Lake #58 First Nation 2016). Hunting moose and bear, gathering wild berries and natural medicines, and fishing in the lakes and streams are all traditional land use practices carried out by the community. The Long Lake First Nation was relocated to its current reserve in 1905. Since relocation, some of the reserve lands have been expropriated for railway and highway development. Members of the Long Lake #58 First Nation contributed to the creation of the Ginoogaming First Nation, which is

located to the southeast. The Long Lake #58 First Nation has approximately 1,300 members with about 450 people living on-reserve.

The Ginoogaming First Nation (formerly Long Lake 77 First Nation) is an Anishnawbe group located on the northern shore of Long Lake, south of the Long Lake #58 First Nation and the community of Longlac (Ginoogaming First Nation 2016). The community is within the boundaries of the territory outlined by the James Bay Treaty of 1905 – Treaty Number 9. The group has a total of 773 members, with about 168 people living on-reserve (Ginoogaming First Nation 2016).

1.2.2 Euro-Canadian Archaeological Resources and Surveys

The fur trade further developed during the late 17th and 18th centuries as European groups (specifically the French and the British) founded and abandoned a number of trading posts. Trading activities occurred to the west near Lake Nipigon as early as 1656 (Lavoie 1987:9) between Ojibwa and Euro-Canadian groups. There is a possibility that French fur traders were in the Kenogamisis Lake area as early as the end of the 17th century (Lavoie 1987:11). The next major evidence of Euro-Canadian presence in the area is a 1763 map depicting Long Lake, which is located approximately 18 kilometres to the east of the study area (Lavoie 1987:12). The Long Lake trading posts founded by the North West Company and then the Hudson Bay Company in the first decades of the 19th century also benefitted from trails and portage routes that led from the Kenogamisis Lake area (Lavoie 1987:13-14).

In the last half of the 19th century Euro-Canadian settlements began to stabilize and grow as the fur trade was overshadowed by the introduction of railways, logging and mining, the first in the area being Port Arthur and Fort William (which later formed the City of Thunder Bay in 1970). Although the James Bay Treaty would not cede the land until the early 20th century, surveys of the region were made between 1869 and 1871 with subsequent consideration of the Canadian Pacific Railway being built in the area (Lavoie 1987:14-16). The railway, however, was not routed through the region and by 1900 the study area was still mainly visited by Aboriginal fishers and trappers with no permanent settlements (Lavoie 1987:18).

Thunder Bay District was created in 1871 by provincial statute from the western half of Algoma District, named after a large bay on the north shore of Lake Superior. Its northern and western boundaries were uncertain until Ontario's right to Northwestern Ontario was determined by the Judicial Committee of the Privy Council. Until circa 1902 it was often called Algoma West (Canada Gen Web 2013).

The study area and the surrounding region was mapped in the early 20th century and was explored for its natural resource possibilities. It was not until 1931 that the first gold claims were made in the area, on the southwest shore of Kenogamisis Lake (Lavoie 1987:26). As a result, in the next five years a number of mining claims were established and mines were opened. By 1936 a number of mining camps developed into townsites that are still active communities today, including Geraldton to the north of the study area and those townsites located within the current study area: Macleod, Rosedale Point, and Hardrock. These three townsites were

associated with the Macleod-Cockshutt, Little Long Lac, and Hardrock mines respectively (Lavoie 1987).

1.2.2.1 Geraldton

A town site was surveyed in early 1934 by Ontario land surveyor L. Mooney. The town was named Geraldton after S.J. Fitzgerald and J. Errington, two mining executives from the Sudbury Diamond Drilling Company. By the end of 1934 Geraldton boasted a café, general store, barber, hotel, lumber company, law office and Royal Bank Branch. Already, 200 residents lived in the town (Lavoie 1987: 64).

Geraldton experienced impressive growth in these early years. In August 1937, the Geraldton Chamber of Commerce met with the Municipal Board of Ontario to incorporate Geraldton as a town. The new town would incorporate 950 acres (Globe and Mail 1937a). By the end of 1937 Geraldton had a population of 2,000. Nine gold mines in the area had an annual revenue of $7,000,000. The town was the largest and fastest growing in Ontario's northwest. There were 240 residences and 150 other buildings, assessed at nearly $1,000,000. The town had a brand new $75,000 department store, taxis, three hotels, three churches, two banks, and a fire proof theatre. The Globe and Mail compared the new town to Dawson in the Yukon, but expected it to prosper perpetually because of the vast quantity of gold (Globe and Mail 1937b). The town was electrified in February 1937 and phone service arrived in March 1937 (Lavoie 1987: 142). The demand for schooling swamped the small town and by the time the first school house was completed, it was deemed overcrowded.

Rapid development continued through 1938 and the town reached a population of 2,500. A nine-hole golf course was opened on the outskirts of town in 1938 and was designed by renowned golf course architect Stanley Thompson. The Globe and Mail reported "Geraldton is another outstanding example of what mining does for Ontario" (Norman 1938).

One major drawback of Geraldton during the 1930s was its dependence on the railroad. No roadway existed between the town and the rest of Canada. Roadwork to link Geraldton from Thunder Bay commenced in 1938. However, the start of the Second World War delayed completion. Since the road was 80% complete, construction continued, despite an Ontario government policy barring highway construction during the war. The route from Beardmore to Geraldton was opened in September 1940. A celebration event included two convoys of cars, one from Geraldton, and one from Thunder Bay meeting along the new highway (Lavoie 1987: 284-285).

The eastern link from Geraldton to Hearst still needed to be completed. Because of wartime restrictions, prisoners were utilized to clear and grade part of the over 160 km right of way. The prisoners were dispersed in three camps of 150. The use of prison labor served the dual purpose of affordably completing the highway and alleviating provincial prison overcrowding (Globe and Mail 1940). The road was completed in June 1943 with a mix of contract and prison labor. Due to the ongoing war, the road was opened with no ceremony or fanfare (Lavoie 1987: 289, Globe and Mail 1943). It was now possible to drive from one end of Canada to the other, and

Geraldton was along this route. Route 11 remained the primary route of the Trans-Canada Highway until the completion of Route 17 in 1960.

1.3 ARCHAEOLOGICAL CONTEXT

1.3.1 The Natural Environment

The study area is situated within the "Canadian Shield" physiographic region which covers 32% of Canada. Approximately half of the Shield is classified as upland and extends from northwestern Quebec through Northern Ontario, Manitoba, Saskatchewan, and portions of Nunavut and the Northwest Territories. The Shield is composed of crystalline Precambrian rocks which were formed during a number of mountain building episodes between four and one billion years ago (Acton *et al*. 2015). It is rich in minerals and lumber, accompanied by bare rock and thin soils (Royal Canadian Geographical Society 2013).

The surficial geology underlying the study area is varied but consists predominantly of deposits of peat with mixed/poor drainage. Areas of mixed well- and poorly drained sandy outwash deposits, well-drained till ground moraines, and bedrock knob also exist (Ontario Geological Survey 2005).

Detailed soils information is very limited in Northern Ontario and is typically confined to areas of agricultural land use. No such data was available for the study area.

The study area crosses Barton Bay of Kenogamisis Lake, which drains the Kenogamisis River into the Kenogami River. Kenogamisis Lake is a navigable waterway. The study area also crosses, or is in proximity to, a number of minor waterways/waterbodies including Hardrock Creek and Cecile Lake.

1.3.2 Pre-contact Aboriginal Resources

The study area has been potentially occupied from 7000 BC until the present day. A summary of the culture history for the northern Lake Superior shore line is provided in **Table 1** and discussed further below.

Table 1: Cultural Chronology of the Thunder Bay District

Period	Groups	Time Period	Comments
Paleo-Indian	Plano Group	7000 - 5000 BC	unfluted projectile points; big game hunters; small camps along strandlines
Archaic	Shield Archaic	5000 - 500 BC	seasonal camps; cold hammering of native copper
Initial Woodland	Laurel Culture	500 BC - 1000 AD	introduction of pottery; evidence for exchange networks

Period	Groups	Time Period	Comments
Terminal Woodland	Blackduck Culture	1000 - 1650 AD	fabric-impressed globular ceramic vessels
Contact Aboriginal	Various Algonkian Groups	1650 - 1850 AD	early European contact and fur trade
Late Historic	Euro-Canadian	1850 AD - present	European settlement and treaties

The following summary, of the possible archaeological resources and occupation north of the Lake Superior shore line, is based on Bray and Epp 1984, Dawson 1983b, Government of Ontario 1997, Hamilton 2013, Hinshelwood 2004, Julig 1994, Mason 2002, Morris 1943, Ross and Arthurs 1979 and Wright 1995-2004.

The north shore of Lake Superior was either beneath the Wisconsin Glacier or submerged under glacial Lake Minong until approximately 7000 BC when Paleo-Indian groups moved into the area from the west or south. The Plano phase of the Paleo-Indian culture (7000 - 5000 BC) includes a variety of temporal and regional variations in tool sets composed of unfluted points. Plano sites tend to be found on the beaches of the Upper Great Lakes and former beaches on the shores of glacial lakes (strandlines). For example, the Brohm site is located south of the proposed corridor east of Thunder Bay on a strandline. Evidence from Plano sites indicates a reliance on big-game hunting (i.e., caribou, extinct Pleistocene mammals) as well as the use of boats. Plano groups were likely small, occupying the same sites seasonally over a long period of time.

The Shield Archaic period (5000 - 500 BC) in Northern Ontario is evidenced by campsites throughout the Canadian Shield. Early Shield Archaic hunters followed the same subsistence patterns as Plano hunters. As the Continental Glacier receded and the glacial lakes dried, Archaic hunters moved farther into the interior of Northern Ontario following the caribou and, for a brief period, moose populations. Tool technologies were adapted to include axes, adzes and chisels in response to the developing northern forests. Stone tools are generally ground or polished rather than the chipped and flaked tools that occurred in the Plano period and early Archaic. The addition of copper as a raw material led to the production of a more specialized Southern Shield Archaic tool set that included a variety of tools for woodworking and more commonly fishing. Fishing technology grew to include copper harpoons, fish hooks and large gaff hooks. In addition to tool technology development, ceremonial burial practices developed in the Southern Shield Archaic period to include the practice of depositing grave goods. There was also an increase in trade with groups throughout the Great Lakes region with trade networks extending into Southern Ontario and the American Midwest.

The Initial Woodland period in Northern Ontario (500 BC - 1000 AD) is characterized by the introduction of ceramics as part of the Laurel culture. There is no evidence that ceramic technology developed independently in Northern Ontario, instead, the skill level indicates the introduction of a new group of people into Northern Ontario. Settlement patterns of the Initial Woodland period indicate seasonal settlement generally along major watercourses. Subsistence continued to depend more heavily on hunting in the interior of Northern Ontario and on fishing in the Upper Great Lakes Region. New tool technologies include net sinkers, which have been

found at sites along the shore of Lake Superior and red ochre appears to have been used as pigment. The practice of using burial mounds was also adopted during the Initial Woodland period.

The Terminal Woodland period (1000 - 1650 AD) is marked by changes in the shape of ceramic artifacts. Whereas Initial Woodland ceramics were generally conical in shape with stamped decoration, Terminal Woodland ceramics were globular and fabric or cord-impressed. As with the introduction of Laurel pottery, there is no evidence that Terminal Woodland Blackduck ceramics developed in Northern Ontario. Throughout the Terminal Woodland, sites become larger and more extensive although they remain seasonal in nature. Villages were likely composed of extended families or hunting bands. Rock paintings also appear during the Terminal Woodland.

The Algonkian culture moved into Northern Ontario during the Terminal Woodland and is identified through the development of new pottery types. Small scrapers and projectile points used for hunting and fur processing become an integral component of the stone tool set as well as bone awls and copper knives, fish hooks and scrapers. Algonkian groups became more mobile as food sources became sparser and seasonally unreliable as the climate changed during the Little Ice Age (*circa* 1550 AD). Trade networks with Iroquoian villages to the south were established allowing Algonkian hunters to exchange furs for agricultural goods.

1.3.3 Previously Identified Archaeological Sites and Surveys

In order that an inventory of archaeological resources could be compiled, the registered archaeological site records kept by the MTCS were consulted. In Ontario, information concerning archaeological sites is stored in the ASDB maintained by the MTCS. This database contains archaeological sites registered according to the Borden system.

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 ASDB. The study areas under review are within Borden Block DkIr.

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 ASDB has shown that no archaeological sites have been registered within a one kilometre radius of the study area (Government of Ontario 2018). The nearest registered archaeological sites are approximately five kilometres east in MacLeod Provincial Park (the North Point site [DkIr-1]; the Bridgeview site [DkIr-2]; the Campsite 23 site [DkIr-3]; Site DkIr-4; and, Site DkIr-5). These sites are summarized below.

The North Point site (DkIr-1) was first reported in 1973, with repeated work on the site through the 1980s. The site is recorded as an Initial Woodland-period Aboriginal campsite with also material dating to the post-contact period, specifically the late 17th and early 18th centuries. The site assemblage includes fragments of Taconite Jasper (a siliceous material which outcrops along the Lake Superior north shore [Dawson 1983a]) as well as copper artifacts and gun fragments (Government of Ontario 2018).

The Bridgeview site (DkIr-2) was first reported in 1973 with repeated collection work on the site through the 197s and 1980s. The assemblage consists of chipped stone artifacts, a copper artifact, and a gunflint; the copper artifact is speculated to be Archaic in date (Government of Ontario 2018).

The Campsite 23 site (DkIr-3) was reported in 1985. The site is an Aboriginal site of indeterminate age. The assemblage consists of a small collection of Hudson's Bay Lowland chert flakes recovered from a surface scatter (Government of Ontario 2018).

Site DkIr-4 was reported in 1986. The site is an Aboriginal site of indeterminate age. The assemblage consists of three Hudson's Bay Lowland chert flakes recovered from a surface scatter (Government of Ontario 2018).

Site DkIr-5 was reported in 1986. The site is an Aboriginal site of indeterminate age. The assemblage consists of a single ground slate projectile point recovered from a surface context (Government of Ontario 2018).

These sites are each indicative of the long-distance north-south travel routes and exchange networks crossing the northwestern Ontario interior between the Lake Superior and Hudson's Bay basins.

Three previous archaeological assessments (Stantec 2014; 2015a; 2015b) have been completed within 50 metres of the study area. These assessments are summarized below.

Stantec (2014) completed a Stage 1 archaeological assessment for Premier Gold Mines Limited of the Hardrock Site in the Municipality of Greenstone, Thunder Bay District, Ontario under the project direction of Park Dickson (PIF# P256-0023-2013). This assessment recommended Stage 2 archaeological assessment for part of the current study area.

Stantec (2015a) completed a Stage 2 archaeological assessment for Premier Gold Mines Hardrock Inc. in the Municipality of Greenstone, Thunder Bay District, Ontario under the project direction of Parker Dickson (PIF# P256-0302-2014). This assessment surveyed part of the current study area. No archaeological resources were identified.

Stantec (2015b) completed a supplemental Stage 2 archaeological assessment of additional lands for the Hardrock Project in the Municipality of Greenstone, Thunder Bay District, Ontario under the project direction of Arthur Figura (PIF# P083-0263-2015). This assessment surveyed part of the current study area. No archaeological resources were identified.

1.3.4 Existing Conditions

The study area comprises an approximately 14.3 kilometre linear alignment consisting of a 50 metre radius buffer on that alignment. The alignment is primarily confined to existing road right-of-ways (RoW). Geographically, the study area includes a large percentage of forested land interspersed with lakes, permanently wet areas, and other watercourses. Approximately 3.5 kilometres of the study area runs through the existing town site of Geraldton. No property inspection was completed for this archaeological assessment and commentary on archaeological potential is based on modelling indicating archaeological potential on specific geographic features, in accordance with the MTCS' 2011 *Standards and Guidelines for Consultant Archaeologists*, Section 1.3.1 and 2.1.5 (Government of Ontario 2011b).

2.0 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 2011b) to determine areas of archaeological potential within the study area. 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.

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. Finally, extensive land disturbance can eradicate archaeological potential (Wilson and Horne 1995).

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 sites locations and types to varying degrees. The MTCS categorizes water sources in the following manner:

- Primary water sources: lakes, rivers, streams, 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; and
- Accessible or inaccessible shorelines: high bluffs, swamp or marshy lake edges, sandbars stretching into marsh.

The study area includes, and is in proximity (within 50 metres) to, a number of current watercourses/waterbodies. The study area also includes areas which are understood to possess well-drained sandy soils.

Furthermore, the town of Geraldton is a 20th century early Euro-Canadian settlement in the region of the study area. Similarly, the roads within the study area are considered early transportation routes. Barton Bay, as part of Kenogamisis Lake, is also considered an early Aboriginal transportation route, and the study area includes areas within 150 metres of this waterbody.

Therefore, on account of the features listed above, parts of the study area are considered to possess archaeological potential and are indicated on Figure 4.

Areas within the current town of Geraldton may have been subject to previous disturbance on account of the town's development and RoW construction. However, the extent of such potential disturbance requires confirmation.

The remainder of the study area is located at sufficient distance from features indicating archaeological potential that they are considered to possess low archaeological potential.

3.0 RECOMMENDATIONS

The Stage 1 background research has resulted in the determination that Stage 2 archaeological assessment will be required. As per Section 1.3.3 of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011b), the Stage 2 archaeological assessment will follow alternate survey standards specific to special conditions of the Canadian Shield, where the study area is located. The Stage 2 archaeological assessment will follow the alternative strategies outlined in Section 2.1.5 of *the Standard and Guidelines for Consultant Archaeologists* (Government of Ontario 2011b) as follows:

- test pit survey is required between 0 to 50 metres from a modern water source at intervals of five metres and a survey is not required past 50 metres.
- for features of archaeological potential other than modern water sources, such as the known transportation routes in the area, test pit survey is required in intervals of five metres 0 to 50 metres from the feature. From 50 to 150 metres from the feature, test pit survey intervals can be a maximum of 10 metres. Survey is not required beyond 150 metres.

Further, the study area within the Geraldton Townsite may have been be affected by the town's development and RoW construction, however further work is required to confirm the extent of this potential disturbance. Therefore, test pit survey at ten metre intervals within the townsite is also recommended to document the extent of any modern disturbance, as per Sections 2.1.8 of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011b). In areas where previous disturbance cannot be confirmed the survey interval will be reduced to 5 metres.

All test pit survey will involve excavating test pits that are approximately 30 centimetres in diameter and excavated five centimetres into sterile subsoil. The soils will be examined for stratigraphy, cultural features, or evidence of fill. All soil will be screened through six millimetre mesh hardware cloth to facilitate the recovery of small artifacts and then used to backfill the pit.

Finally, the remainder of the study area does not retain archaeological potential and therefore no further archaeological fieldwork is required as noted on Figure 4-A to 4-J.

The MTCS is asked to review the results presented and to accept this report into the Ontario Provincial Register of Archaeological Reports. Additional archaeological assessment is still required and so the 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.

4.0 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the Minister of Tourism, Culture and Sport 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 project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, Culture and Sport, 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 human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

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

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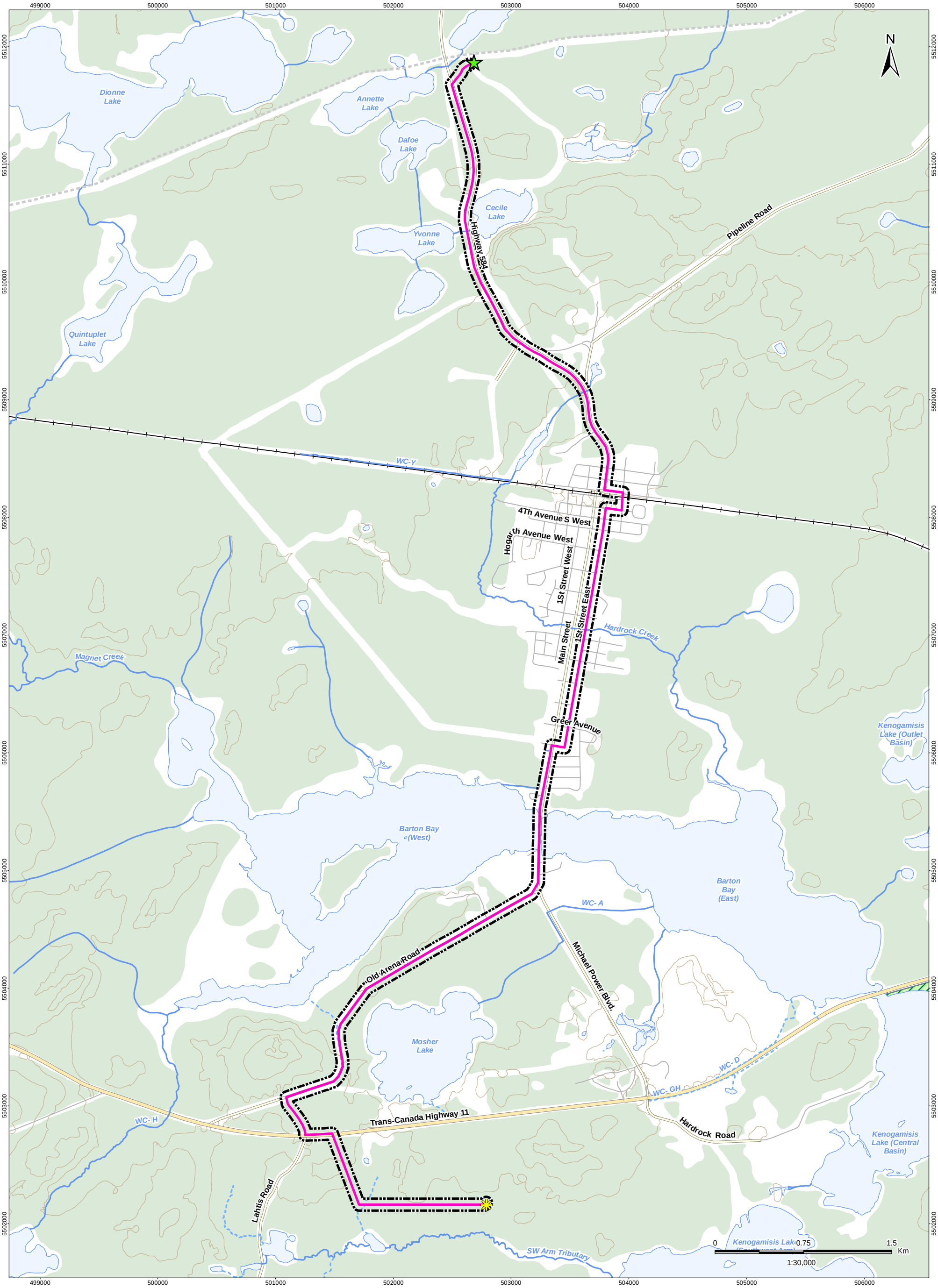
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6.0 MAPS

All maps will follow on the succeeding pages.

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Revised: 2018-01-03 By: dharvey



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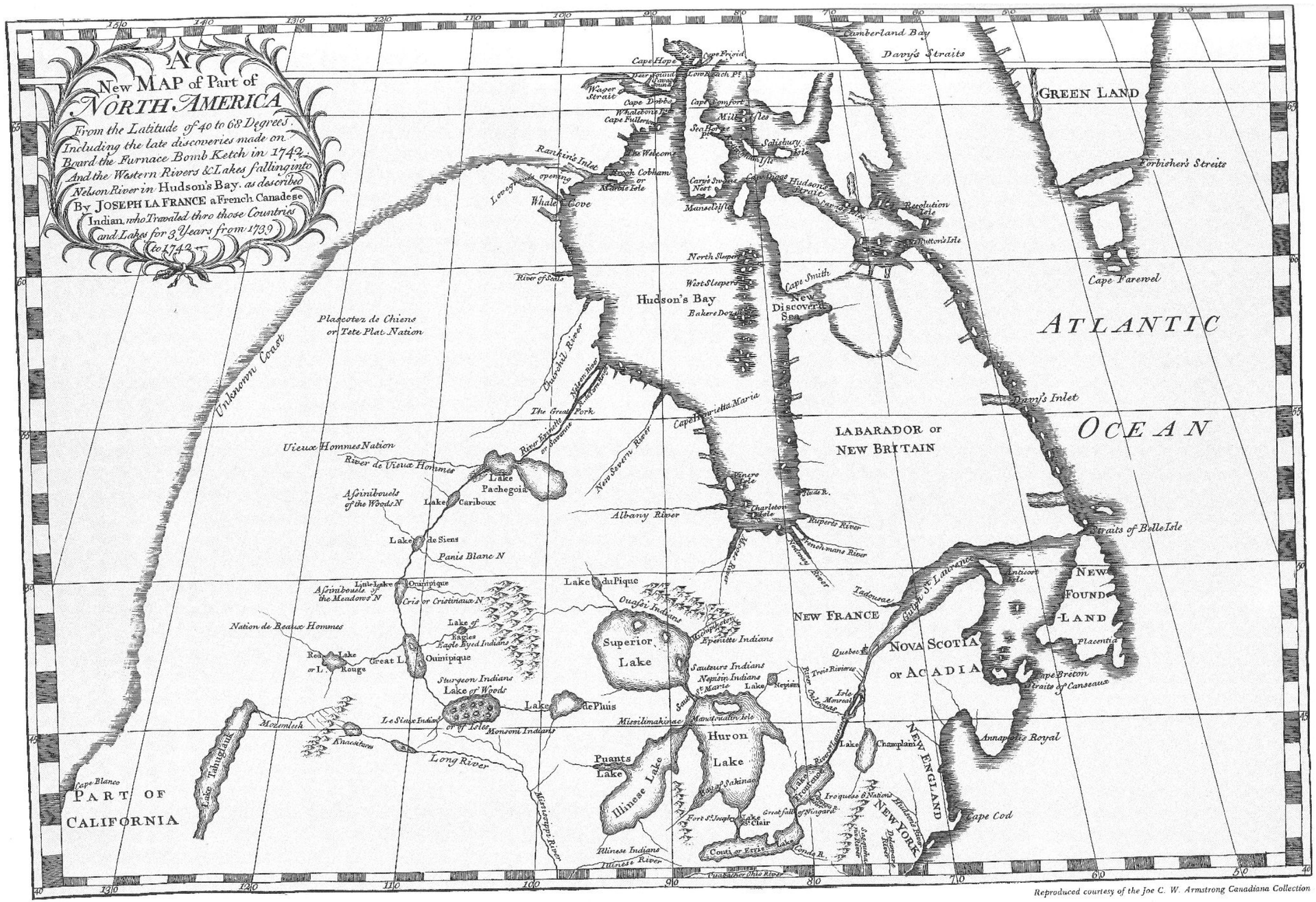
Notes
1. Coordinate System: NAD 1983 UTM Zone 16N
2. Base features provided by Toporama WMS with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2017.

Legend
- Study Area
- Existing Union Gas Station
- Proposed Hardrock Processing Facility
- Preliminary Preferred Route
- Trans Canada Pipeline
- Contour Line (10 m intervals)
- Highway
- Major Road
- Local Road
- Watercourse- Permanent
- Watercourse- Intermittent
- Waterbody
- Wooded Area

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Stage 1 Archaeological Assessment Report

Figure No.
1

Title
Study Area



Notes

1. LaFrance, Joseph and Dobb, Arthur. 1744. A New Map of North America. In Armstrong, Joe C.W. 1982. From Sea to Sea: Art and Discovery Maps of Canada. Fleet Publishers, Scarborough.

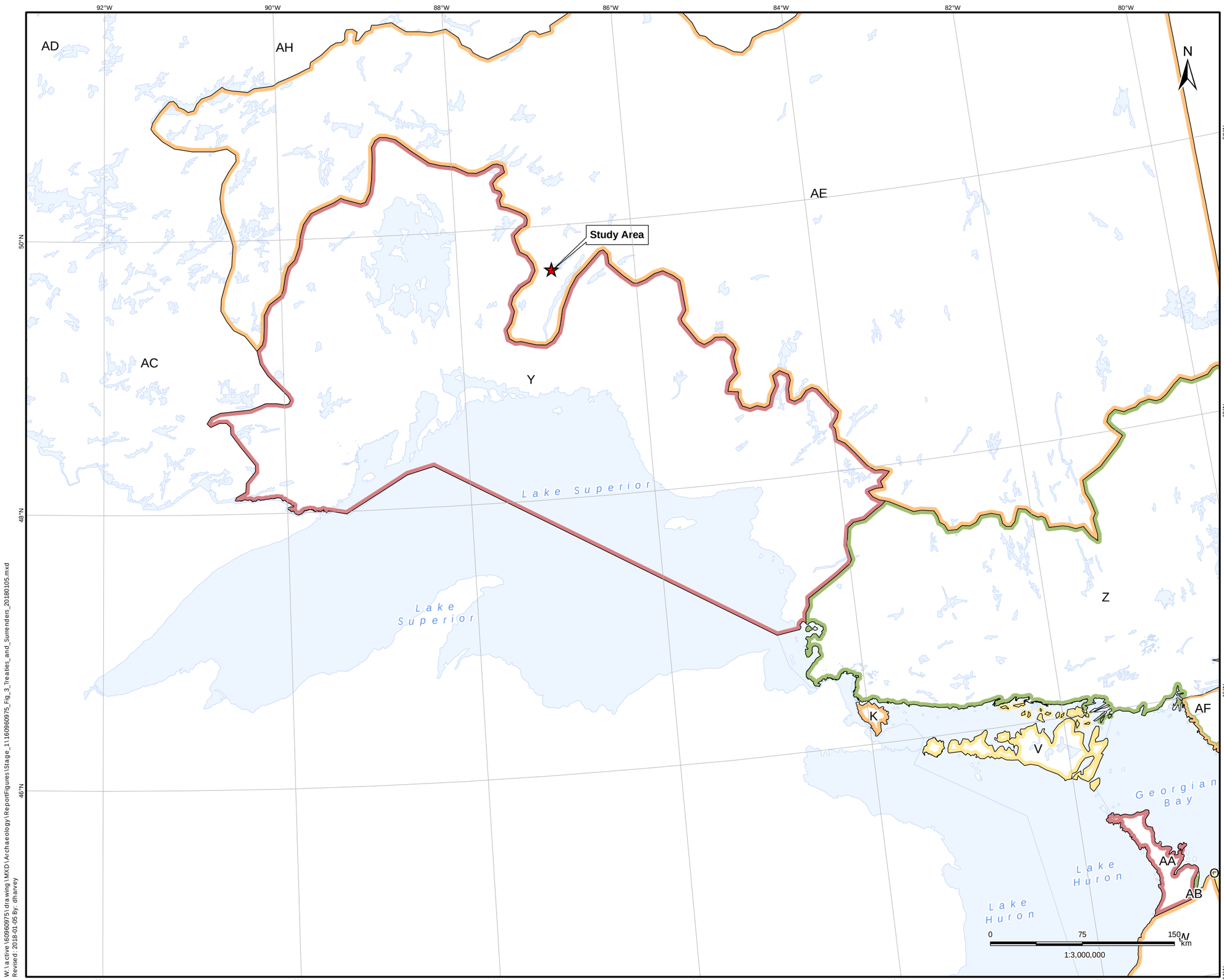
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Figure No.
2

Title
LaFrance Historical Map
1744

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Revised: 2018-01-05 By: dharvey

Stantec

Legend

- Project Location
- Waterbody

- A Treaty No. 381, May 9th, 1781 (Mississauga and Chippewa)
- B Crawford's Purchase, October 9th, 1783 (Algonquin and Iroquois)
- B1 Crawford's Purchase, October 9th, 1783 (Mississauga)
- B2 Crawford's Purchases, 1784, 1787 And 1788 (Mississauga)
- A2 John Collins' Purchase, 1785 (Chippewa)
- 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)
- L Treaty No. 13, August 1st, 1805 (Mississauga)
- M Treaty No. 13A, August 2nd, 1805 (Mississauga)
- 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 Chippewa)
- U Treaty No. 35, August 13th, 1833 (Wyandot or Huron)
- 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)
- Z Treaty No. 61, September 9th, 1850 (Robinson Treaty:Ojibwa)
- AA Treaty No. 72, October 30th, 1854 (Chippewa)
- AB Treaty No. 82, February 9th, 1857 (Chippewa)
- AF Williams Treaty, October 31st and November 15th, 1923 (Chippewa and Mississauga)
- AG Williams Treaty, October 31st, 1923 (Chippewa)
- AC Treaty No. 3 Manitoba, 1873 (Ojibwa)
- AD Treaty No. 3 Manitoba, 1873 (Saulteax and Swampy Cree)
- AE James Bay Treaty No. 9, 1905-1906 (Ojibwa and Cree)

Notes

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3. Treaty boundaries adapted from Morris 1943 (1964 reprint). For cartographic representation only.

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Figure No.

3

Title

Treaties and Surrenders

501800 501900 502000 502100 502200 502300 502400 502500 502600 502700 502800 502900 503000 503100 503200 503300

5512500 5512400 5512300 5512200 5512100 5512000 5511900 5511800 5511700 5511600 5511500 5511400 5511300

N

Marie Lake

WC- W

Highway 584

Annette Lake

Dafoe Lake

0 125 250 m

1:5,000

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Revised: 2018-01-05 By: dharvey

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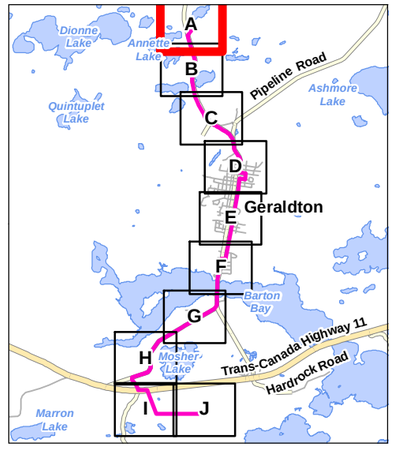
- Study Area
- Existing Union Gas Station
- Preliminary Preferred Route

Existing Features

- Major Road

Archaeological Potential

- Stage 2 Archaeological Assessment Recommended (Test-pit Survey at 10 metre Intervals)
- Stage 2 Archaeological Assessment Recommended (Test-pit Survey at 5 metre Intervals)



Notes

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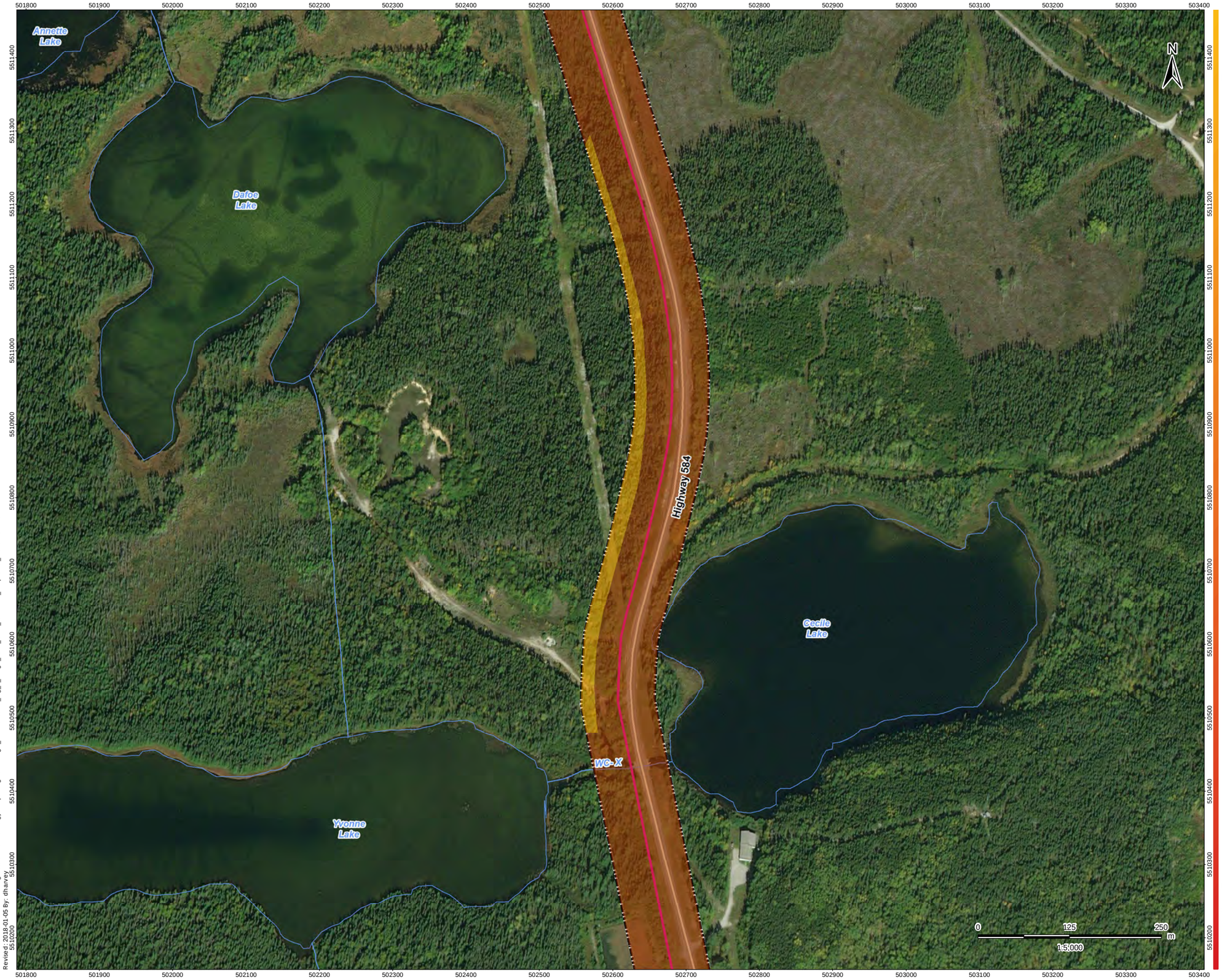
Union Gas Ltd.
Premier Pipeline Project
Stage 1 Archaeological Assessment Report

Figure No.

4 - A

Title

Stage 1 Archaeological Potential



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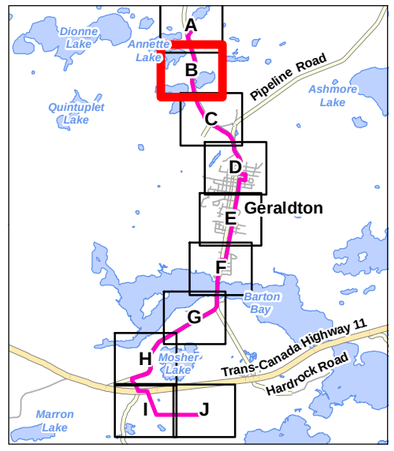
- Study Area
- Preliminary Preferred Route

Existing Features

- Major Road
- Railway
- Watercourse
- Waterbody

Archaeological Potential

- Stage 2 Archaeological Assessment Recommended (Test-pit Survey at 10 metre Intervals)
- Stage 2 Archaeological Assessment Recommended (Test-pit Survey at 5 metre Intervals)



Notes

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Stage 1 Archaeological Assessment Report

Figure No.

4 - B

Title

Stage 1 Archaeological Potential



Stantec

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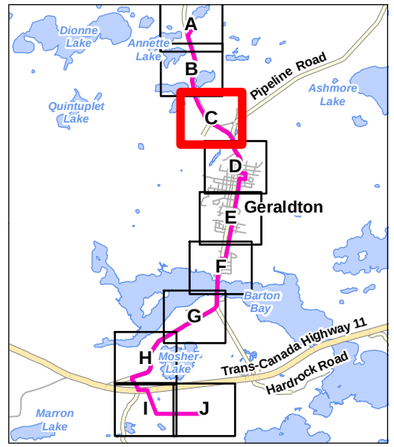
- Study Area
- Preliminary Preferred Route

Existing Features

- Major Road
- Local Road
- Railway
- Watercourse

Archaeological Potential

- Stage 2 Archaeological Assessment Recommended (Test-pit Survey at 5 metre Intervals)



Notes

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160960975

Client/Project

Union Gas Ltd.
Premier Pipeline Project
Stage 1 Archaeological
Assessment Report

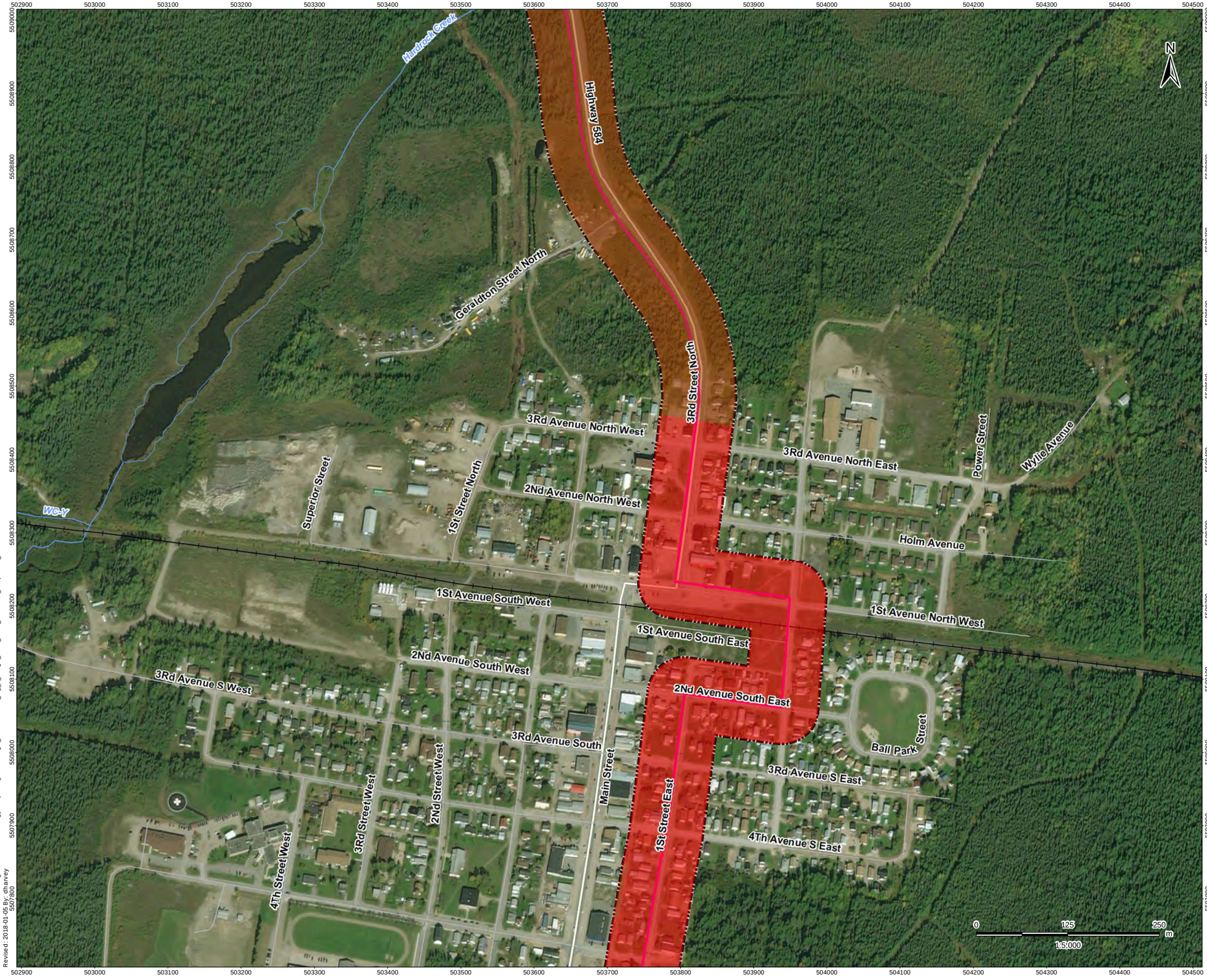
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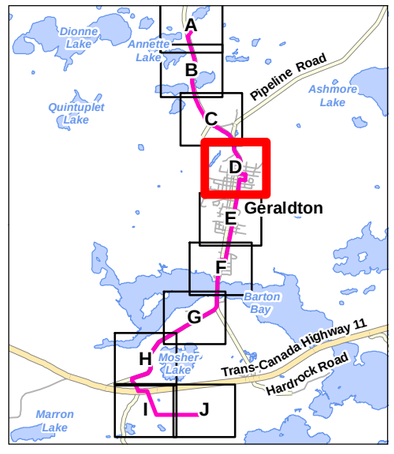
4 - C

Title

Stage 1 Archaeological Potential

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Revised: 2018-01-05 By: dharvey





Stantec

Legend

- Study Area
- Preliminary Preferred Route

Existing Features

- Major Road
- Local Road
- Railway
- Watercourse

Archaeological Potential

- Stage 2 Archaeological Assessment Recommended (Test-pit Survey at 5 metre Intervals)
- Variable Archaeological Potential - Stage 2 Archaeological Assessment Recommended

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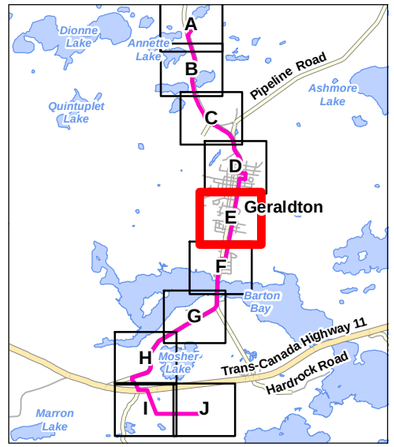
Client/Project
Union Gas Ltd.
Premier Pipeline Project
Stage 1 Archaeological Assessment Report

Figure No.
4 - D

Title
Stage 1 Archaeological Potential

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Legend

- Study Area
- Preliminary Preferred Route

Existing Features

- Local Road
- Railway
- Watercourse
- Waterbody

Archaeological Potential

- Stage 2 Archaeological Assessment Recommended (Test-pit Survey at 5 metre Intervals)
- Variable Archaeological Potential - Stage 2 Archaeological Assessment Recommended

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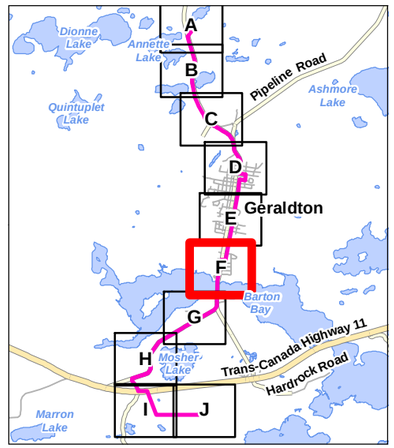
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Stage 1 Archaeological Assessment Report

Figure No.
4 - E

Title
Stage 1 Archaeological Potential

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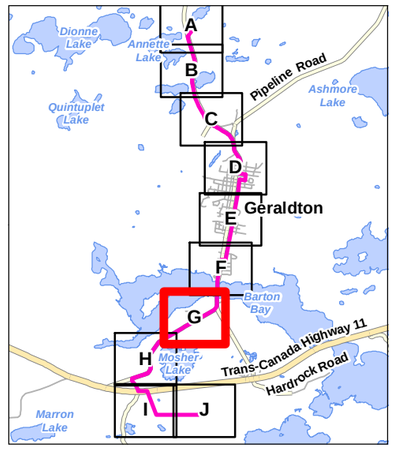
Client/Project
Union Gas Ltd.
Premier Pipeline Project
Stage 1 Archaeological Assessment Report

Figure No.
4 - F

Title
Stage 1 Archaeological Potential

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Revised: 2018-01-05 By: dharvey





Stantec

Legend

- Study Area
- Preliminary Preferred Route

Existing Features

- Major Road
- Local Road
- Waterbody
- Previous Stage 2 Archaeological Assessment (PIF # P256-0302-2014) (Stantec 2015a)
- Previous Stage 2 Archaeological Assessment (PIF # P083-0263-2015) (Stantec 2015b)

Archaeological Potential

- Stage 2 Archaeological Assessment Recommended (Test-pit Survey at 5 metre Intervals)
- Water

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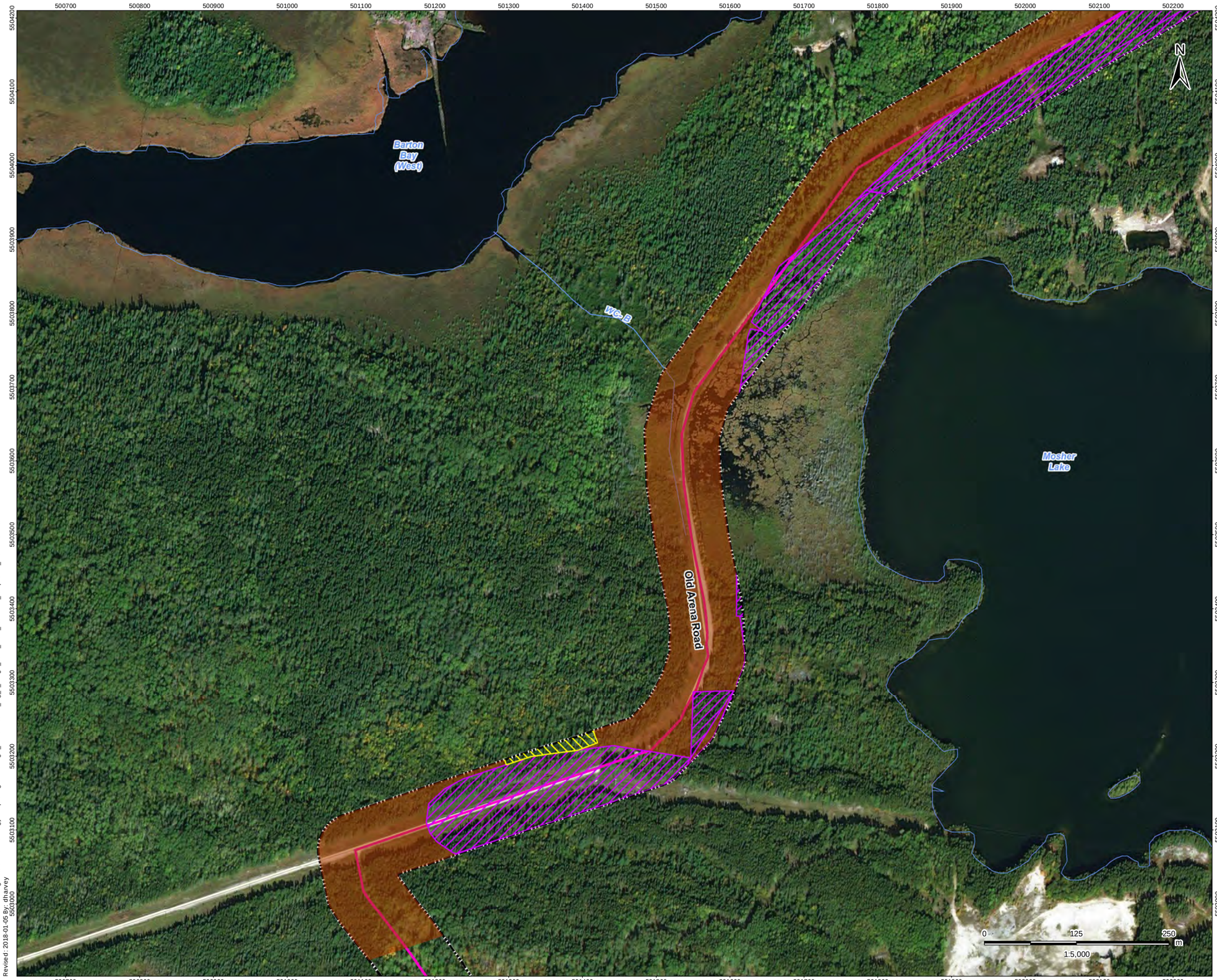
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Client/Project
Union Gas Ltd.
Premier Pipeline Project
Stage 1 Archaeological Assessment Report

Figure No.
4 - G

Title
Stage 1 Archaeological Potential

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Stantec

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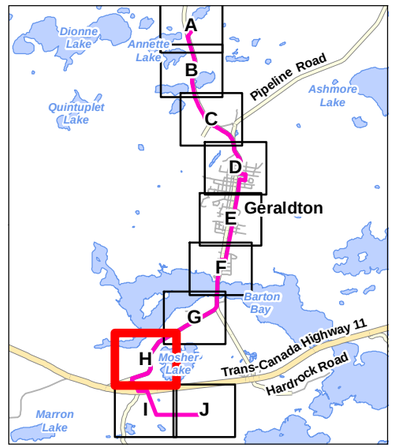
- Study Area
- Preliminary Preferred Route

Existing Features

- Major Road
- Watercourse
- Waterbody
- Previous Stage 2 Archaeological Assessment (PIF # P256-0302-2014) (Stantec 2015a)
- Previous Stage 2 Archaeological Assessment (PIF # P083-0263-2015) (Stantec 2015b)

Archaeological Potential

- Stage 2 Archaeological Assessment Recommended (Test-pit Survey at 5 metre Intervals)



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Client/Project
Union Gas Ltd.
Premier Pipeline Project
Stage 1 Archaeological Assessment Report

Figure No.
4 - H

Title
Stage 1 Archaeological Potential

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Revised: 2018-01-05 By: dharvey

Stantec

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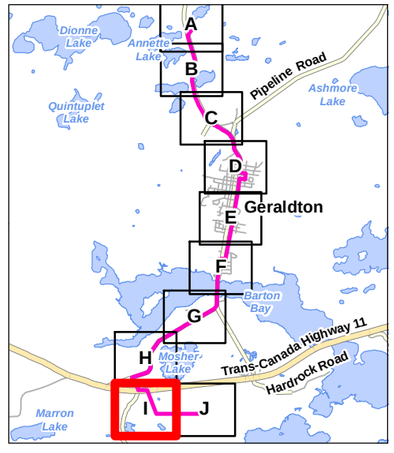
- Study Area
- Preliminary Preferred Route

Existing Features

- Highway
- Major Road
- Watercourse
- Previous Stage 2 Archaeological Assessment (PIF # P256-0302-2014) (Stantec 2015a)
- Previous Stage 2 Archaeological Assessment (PIF # P083-0263-2015) (Stantec 2015b)

Archaeological Potential

- No Further Archaeological Assessment Recommended (Low Archaeological Potential)
- Stage 2 Archaeological Assessment Recommended (Test-pit Survey at 5 metre Intervals)



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Stage 1 Archaeological Assessment Report

Figure No.
4 - I

Title
Stage 1 Archaeological Potential

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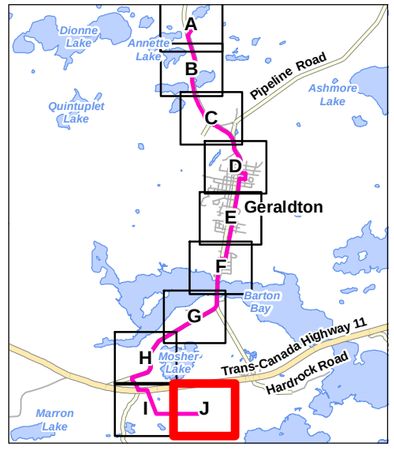
- Study Area
- Proposed Hardrock Processing Facility
- Preliminary Preferred Route

Existing Features

- Major Road
- Previous Stage 2 Archaeological Assessment (PIF # P256-0302-2014) (Stantec 2015a)

Archaeological Potential

- No Further Archaeological Assessment Recommended (Low Archaeological Potential)



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Stage 1 Archaeological Assessment Report

Figure No.
4 - J

Title
Stage 1 Archaeological Potential

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7.0 CLOSURE

This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided. No other representations, warranties or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential archaeological resources associated with the identified property.

All information received from the client or third parties in the preparation of this report has been assumed by Stantec to be correct. Stantec assumes no responsibility for any deficiency or inaccuracy in information received from others.

Conclusions made within this report consist of Stantec's professional opinion as of the time of the writing of this report, and are based solely on the scope of work described in the report, the limited data available and the results of the work. The conclusions are based on the conditions encountered by Stantec at the time the work was performed. Due to the nature of archaeological assessment, which consists of systematic sampling, Stantec does not warrant against undiscovered environmental liabilities nor that the sampling results are indicative of the condition of the entire property.

This report has been prepared for the exclusive use of the client identified herein and any use by any third party is prohibited. Stantec assumes no responsibility for losses, damages, liabilities, or claims, howsoever arising, from third party use of this report. We trust this report meets your current requirements. Please do not hesitate to contact us should you require further information or have additional questions about any facet of this report.

Ministry of Heritage, Sport, Tourism, Culture Industries

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Programs and Services Branch
Heritage, Tourism and Culture Division
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Ontario

Jan 17, 2020

Parker S. Dickson (P256)
Stantec Consulting
171 Queens London ON N6A 5J7

RE: Review and Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Stage 2 Archaeological Assessment: Greenstone Pipeline Project. Municipality of Greenstone, Thunder Bay District, Ontario.", Dated Dec 18, 2019, Filed with MTCS Toronto Office on Dec 20, 2019, MTCS Project Information Form Number P256-0595-2019, MTCS File Number 0004574

Dear Mr. Dickson:

This office has reviewed the above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18.[1] This review has been carried out in order to determine whether the licensed professional consultant archaeologist has met the terms and conditions of their licence, that the licensee assessed the property and documented archaeological resources using a process that accords with the 2011 *Standards and Guidelines for Consultant Archaeologists* set by the ministry, and that the archaeological fieldwork and report recommendations are consistent with the conservation, protection and preservation of the cultural heritage of Ontario.

The report documents the assessment of the study area as depicted in Figures 4-A to 4-J of the above titled report and recommends the following:

No archaeological resources were identified during the Stage 2 archaeological assessment of the study area. Thus, in accordance with Section 2.2 and Section 7.8.4 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011), no further work is required for the study area.

Based on the information contained in the report, the ministry is satisfied that the fieldwork and reporting for the archaeological assessment are consistent with the ministry's 2011 *Standards and Guidelines for Consultant Archaeologists* and the terms and conditions for archaeological licences. This report has been entered into the Ontario Public Register of Archaeological Reports. Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require any further information regarding this matter, please feel free to contact me.

Sincerely,

Paige Campbell
Archaeology Review Officer

cc. Archaeology Licensing Officer
Norm Dumouchelle,Union Gas
Zora Crnojacki,Ontario Energy Board

[1] *In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.*

Stage 2 Archaeological Assessment: Greenstone Pipeline Project

Municipality of Greenstone,
Thunder Bay District, Ontario

December 18, 2019

Prepared for:

Enbridge Gas Inc.
50 Keil Drive North
Chatham, Ontario N7M 5M1

Prepared by:

Stantec Consulting Ltd.
600-171 Queens Avenue
London, Ontario N6A 5J1

Licensee: Parker Dickson
License Number: P256
PIF Number: P256-0595-2019
Project Number. 160960975

ORIGINAL REPORT

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Executive Summary

To secure the continued reliable delivery of natural gas and to serve a growing demand for affordable natural gas, Enbridge Gas Inc. (Enbridge Gas) is proposing to construct a new 6-inch (15.24 centimetre) diameter steel natural gas pipeline within the Municipality of Greenstone, Ontario (the Project). The 14.3 kilometre (km) pipeline would commence at the existing Union Gas Valve Site located 3.5 km north of Geraldton, Ontario which is adjacent to the TransCanada pipeline. The proposed pipeline terminates at the planned Greenstone Gold Mines processing facility south of TransCanada Highway 11, between Lahtis Road and Hardrock Road. The archaeological study area for the Project covers approximately 62.14 hectares of land.

Enbridge Gas retained Stantec Consulting Ltd. (Stantec) to undertake an environmental study of the construction and operation of the natural gas pipeline. The Ontario Energy Board's (OEB) *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario* (Government of Ontario 2016) require that an archaeological assessment be conducted in accordance with Ministry of Heritage, Sport, Tourism and Culture Industries' (MHSTCI) 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011) prior to any pipeline activities.

The previous Stage 1 archaeological assessment resulted in the determination that Stage 2 archaeological assessment was required (Stantec 2018). The Stage 2 archaeological assessment for the Project was conducted in 2019. **No archaeological resources were identified during the Stage 2 survey of the study area reported on herein. Thus, in accordance with Section 2.2 and Section 7.8.4 Standard 3 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), no further archaeological assessment of the study area is required.**

The MHSTCI 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.

Project Personnel

Project Manager:	Steve Thurtell, MA, RPP, MCIP
Licensed Archaeologist:	Parker Dickson, MA (P256)
Field Directors:	Hillary Schwering, BA (R1064), Nathan Ng (R1223)
Field Technicians:	Carolyn Spelt, Jessica Jenkins
Report Writer:	Arthur Figura, MA (P083)
GIS Specialist:	Daniel Harvey, BES (Hons.), CEAM
Quality Reviewer:	Jeffrey Muir, BA, CAHP (R304)
Independent Reviewer:	Parker Dickson, MA (P256)

Acknowledgements

Proponent Contact:	Norm Dumouchelle, Enbridge Gas Inc.
Long Lake #58 First Nation:	John Onabigon
Métis Nation of Ontario:	Cameron Burgess
Ministry of Heritage, Sport, Tourism and Culture Industries:	Robert von Bitter

1.0 PROJECT CONTEXT

1.1 DEVELOPMENT CONTEXT

To secure the continued reliable delivery of natural gas and to serve a growing demand for affordable natural gas, Enbridge Gas Inc. (Enbridge Gas) is proposing to construct a new 6-inch diameter steel natural gas pipeline within the Municipality of Greenstone, Ontario (the Project). The proposed 14.3 kilometre (km) pipeline would commence at the existing Enbridge Gas Valve Site located 3.5 km north of Geraldton, Ontario which is adjacent to the TransCanada pipeline. The proposed pipeline terminates at the planned Greenstone Gold Mines processing facility south of TransCanada Highway 11, between Lahtis Road and Hardrock Road (Figure 1). The archaeological study area for the Project covers approximately 62.14 hectares (ha).

Enbridge Gas retained Stantec Consulting Ltd. (Stantec) to undertake a Stage 2 archaeological assessment for the construction of the Project. Previously, the Project was captured as part of a Stage 1 archaeological assessment (Stantec 2018). Additional details of the Stage 1 archaeological assessment are provided in Section 1.3.4 of this report. The Stage 2 archaeological study area for the Project covers approximately 62.14 hectares (ha). The Ontario Energy Board's (OEB) *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario* (Government of Ontario 2016) require that an archaeological assessment be conducted in accordance with Ministry of Heritage, Sport, Tourism and Culture Industries' (MHSTCI) 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011) prior to any pipeline construction activities.

1.1.1 Objectives

In compliance with the provincial standards and guidelines set out in the MHSTCI's *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), the objectives of the Stage 2 Archaeological Assessment are as follows:

- To document archaeological resources within the study area;
- To determine whether the study area contains archaeological resources requiring further assessment; and
- To recommend appropriate Stage 3 assessment strategies for archaeological sites identified.

Permission for Stantec staff to enter the study area to conduct archaeological field work was coordinated by Enbridge Gas.

1.2 HISTORICAL CONTEXT

1.2.1 Post-contact Indigenous Resources

"Contact" is typically used as a chronological benchmark in 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).

In the 16th and 17th centuries, the region of the study area would have been occupied by Mushkegowuk (Cree) or Anishnawbe (Ojibway) people transiting the Aguasabon River-Long Lake-Kenogami River-Albany River route between Lake Superior and James Bay. At the south of this route, Joseph La France's 1744 *New Map of Part of North America* depicts the "Ouassi Indians" along the north shore of Lake Superior (La France 1744). Figure 2 illustrates the 1744 map. This map is likely referencing an Anishnawbe Band, eponymously named for the totem of the Bullhead, or '*wassi*', in the Anishinaabemowin language (Rogers and Taylor 1981:242). It is, however, unlikely that the entire north shore of Lake Superior from Thunder Bay to Michipicoten was exclusively occupied by a single band. In the north, the mouth of the Albany River at Fort Albany and Lac-Ste.-Anne were occupied by the Attawapiskat and Weenusk Mushkegowuk Bands (Honigmann 1981:218-219). In general, both Anishnawbe and Mushkegowuk populations living in Northern Ontario would have been sustained primarily by fishing, hunting moose and deer, and to a lesser degree by gathering wild vegetable foods (Heidenreich and Wright 1987; Honigmann 1981:219).

During the 17th century, the interior of Northern Ontario between Lake Abitibi and Lake Nipigon is described to have been occupied by a group whom the Algonquins referred to as *Nopiming daje inini*, meaning "the people of the interior land" (Gélinas 1998:54-60). This group is generally accepted to correspond to nomadic Cree bands (Heidenreich and Wright 1987). Gélinas (1998:62) points out that group identities are not so easily assigned given the historic records available, and the *Nopiming daje inini* may have comprised of populations from many former groups who were forced to amalgamate under the political climate of the 17th century.

While contact with Euro-Canadian people may have happened to a minor extent during the 17th century, extensive contact did not reach northern Anishnawbe people until the mid-18th century with the advent of the fur trade in the James Bay and Hudson's Bay watersheds (Rogers and Taylor 1981:231).

During the initial expansion of the fur trade in Northern Ontario, settlement size and population distribution did not shift. Once bands began to congregate along trade routes, joint villages and hunting grounds were set up in relation to fur trading pasts. Due to increased contact, Indigenous technologies, such as Indigenous ceramics, were phased out and replaced by more convenient European goods, such as brass or copper kettles. In contrast, Indigenous residences continued to be dome-shaped wigwams constructed from locally available materials (Dawson 1983b).

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, particularly north of Lake Superior (Métis Nation of Ontario 2019; Stone and Chaput 1978:607-608).

The study area is situated within the District of Thunder Bay, Ontario. This area was not subject to surrender or treaty until the 1905-1906 James Bay Treaty Number 9. Based on a series of compilations by Morris (1943), Figure 3 illustrates various treaties near the study area, including the 1905-1906 James Bay Treaty Number 9. Since the area south of the study area had already been surrendered through the Robinson Superior Treaty of 1850, various Indigenous groups attempted to enter into negotiations for what eventually became James Bay Treaty Number 9 to protect and clarify their rights to the land (Morrison 1986). According to the Canadian government, the treaty was negotiated "for the cession" by the Indigenous groups of:

> *…all their rights, titles and privileges to the land included in the said territory the limits of which may be described as follows:*
>
> *That portion or tract of land lying and being in the Province of Ontario bounded on the south by the height of land the northern boundary of the territory ceded by the Robinson Superior Treaty of 1850 and the Robinson Huron Treaty of 1850 and bounded on the east and north by the boundaries of the said Province of Ontario as defined by law and on the west by a part of the eastern boundary of the territory ceded by the North West Angle Treaty No. 3.*
>
> (Morris 1943:53)

A number of reserves for Indigenous populations were also defined in this treaty. The treaty was later subject to a number of adhesions up until 1930 to encompass more Northern Ontario Indigenous groups. Overall, the treaty allowed for the development of natural resources under the Canadian federal (and provincial) government's supervision, with limited rights provided to the original Indigenous inhabitants (Morrison 1986).

The Long Lake #58 First Nation and Ginoogaming First Nation are located to the south of the study area, in the vicinity of the Town of Longlac. The Long Lake #58 First Nation is situated along Highway 11 on the northeast shore of Long Lake, adjacent to the Town of Longlac (Long Lake #58 First Nation 2017). Oral history of the Long Lake #58 First Nation identifies that this group has long ties to the land in this area that date to "time immemorial" (Long Lake #58 First Nation 2017). Hunting moose and bear, gathering wild berries and natural medicines, and fishing in the lakes and streams are all traditional land use practices carried out by the community. The Long Lake #58 First Nation was relocated to its current reserve in 1905. Members of the Long Lake #58 First Nation contributed to the creation of the Ginoogaming First Nation, which is located to the southeast. The Long Lake #58 First Nation has approximately 1,400 members with about 450 people living on-reserve (Long Lake #58 First Nation 2017).

The Ginoogaming First Nation (formerly Long Lake 77 First Nation) is an Anishnawbe group located on the northern shore of Long Lake, south of the Long Lake #58 First Nation and the community of Longlac (Ginoogaming First Nation n.d.). The community is within the boundaries of the territory outlined by the James Bay Treaty of 1905 - 1906 Treaty Number 9. The group has a total of 975 members, with about 200 people living on-reserve (Ginoogaming First Nation n.d.).

1.2.2 Euro-Canadian Resources

The fur trade further developed during the late 17th and 18th centuries as European groups (specifically the French and the British) founded and abandoned a number of trading posts. Trading activities occurred to the west near Lake Nipigon as early as 1656 between Ojibwa and Euro-Canadian groups (Lavoie 1987:9). There is a possibility that French fur traders were in the Kenogamisis Lake area as early as the end of the 17th century (Lavoie 1987:11). The next major evidence of Euro-Canadian presence in the area is a 1763 map depicting Long Lake, which is located approximately 18 km to the east of the study area (Lavoie 1987:12). The Long Lake trading posts founded by the North West Company and then the Hudson Bay Company in the first decades of the 19th century also benefitted from trails and portage routes that led from the Kenogamisis Lake area (Lavoie 1987:13-14).

In the last half of the 19th century, Euro-Canadian settlements began to stabilize and grow as the fur trade was overshadowed by the introduction of railways, logging, and mining. The earliest settlements in the area being Port Arthur and Fort William, which later formed the City of Thunder Bay in 1970. Although James Bay Treaty Number 9 would not cede the land until the early 20th century, surveys of the region were made between 1869 and 1871 with subsequent consideration of the Canadian Pacific Railway being built in the area (Lavoie 1987:14-16). The railway, however, was not routed through the region and by 1900 the study area was still mainly visited by Indigenous fishers and trappers with no permanent settlements (Lavoie 1987:18).

The Thunder Bay District was created in 1871 by provincial statute from the western half of Algoma District. It was named after a large bay on the north shore of Lake Superior. Its northern and western boundaries were uncertain until Ontario's right to northwestern Ontario was determined by the Judicial Committee of the Privy Council. Until about 1902 it was often called Algoma West (Canada Gen Web 2013).

The study area and the surrounding region was mapped in the early 20th century and was explored for its natural resource possibilities. It was not until 1931 that the first gold claims were made in the area, on the southwest shore of Kenogamisis Lake (Lavoie 1987:26). As a result, in the next five years a number of mining claims were established, and numerous mines were opened. By 1936, a number of mining camps developed into townsites, including Geraldton and townsites, some of which are being closed down due to renewed mining activity: Macleod, Rosedale Point, and Hardrock. These three townsites were associated with the Macleod-Cockshutt, Little Long Lac, and Hardrock mines respectively (Lavoie 1987). The towns of Geraldton and Rosedale Point fall within the current study area.

1.2.2.1 Geraldton

A town site was surveyed in early 1934 by Ontario land surveyor L. Mooney. The town was named Geraldton after S.J. Fitzgerald and J. Errington, two mining executives from the Sudbury Diamond Drilling Company. By the end of 1934, Geraldton boasted a café, general store, barber, hotel, lumber company, law office and Royal Bank Branch. Already, 200 residents lived in the town (Lavoie 1987:64).

In August 1937, the Geraldton Chamber of Commerce met with the Municipal Board of Ontario to incorporate Geraldton as a town. The new town would incorporate 950 acres (Globe and Mail 1937a). By the end of 1937, Geraldton had a population of 2,000. Nine gold mines in the area had an annual revenue of $7,000,000 (Lavoie 1987:141). The town was the largest and fastest growing in Ontario’s northwest. There were 240 residences and 150 other buildings, assessed at nearly $1,000,000 (Lavoie 1987:142). The town had a brand new $75,000 department store, taxis, three hotels, three churches, two banks, and a fire-proof theatre. The town was electrified in February 1937 and phone service arrived in March 1937 (Lavoie 1987:142). The demand for schooling swamped the small town and by the time the first school house was completed, it was deemed overcrowded.

Rapid development continued through 1938 and the town reached a population of 2,500 (Griffin 1938:1). The Globe and Mail reported “Geraldton is another outstanding example of what mining does for Ontario” (Norman 1938).

A drawback of Geraldton during the 1930s was its dependence on the railroad. No roadway existed between the town and the rest of Canada. Roadwork to link Geraldton from Thunder Bay commenced in 1938. However, the start of the Second World War delayed completion. Since the road was 80% complete, construction continued, despite an Ontario government policy barring highway construction during the war (Lavoie 1987:284). The route from Beardmore to Geraldton was opened in September 1940. A celebration event included two convoys of cars, one from Geraldton, and one from Thunder Bay meeting along the new highway (Lavoie 1987:285).

The eastern link from Geraldton to Hearst still needed to be completed. Because of wartime restrictions, prisoners were utilized to clear and grade part of the over 160 km right-of-way (Globe and Mail 1940). The prisoners were dispersed in three camps of 150. The use of prison labor served the dual purpose of affordably completing the highway and alleviating provincial prison overcrowding (Globe and Mail 1940). The road was completed in June 1943 with a mix of contract and prison labor. Due to the ongoing war, the road was opened with no ceremony or fanfare (Lavoie 1987:289; Globe and Mail 1943). It was now possible to drive from one end of Canada to the other, and Geraldton was along this route. Route 11 remained the primary route of the Trans-Canada Highway until the completion of Route 17 in 1960.

1.2.2.2 Rosedale Point

Originally known as Barton's Point due to its position just south of the Barton Bay narrows, Rosedale Point was established by the Little Long lac Mines Ltd. east of the Little Long Lac mining site. The subdivision was established by the company for executives (Lavoie 1987). Five single-story log structures were initially built as a part of the community, one of which was a five-bed hospital. One two-story residence was situated in the Rosedale Point community as early as 1934 (Lavoie 1987). Soon after completion, Rosedale Point expanded south and, by 1947, an additional five houses had been constructed, including one by the first doctor in the region, Dr. Riches (Lavoie 1987).

1.3 ARCHAEOLOGICAL CONTEXT

1.3.1 The Natural Environment

The study area is situated within the "Canadian Shield" physiographic region which covers 32% of Canada. Approximately half of the Canadian Shield is classified as upland and extends from northwestern Quebec through Northern Ontario, Manitoba, Saskatchewan, and portions of Nunavut and the Northwest Territories. The Canadian Shield is composed of crystalline Precambrian rocks which were formed during a number of mountain building episodes between four and one billion years ago (Acton *et al*. 2015). It is rich in minerals and lumber, accompanied by bare rock and thin soils (Royal Canadian Geographical Society 2013).

The surficial geology underlying the study area is varied but consists predominantly of deposits of peat with mixed/poor drainage. Areas of mixed well- and poorly drained sandy outwash deposits, well-drained till ground moraines, and bedrock knob also exist (Ontario Geological Survey 2005).

The study area crosses Barton Bay of Kenogamisis Lake, which drains the Kenogamisis River into the Kenogami River. Kenogamisis Lake is a navigable waterway. The study area also crosses, or is in proximity to, a number of minor waterways/waterbodies including Hardrock Creek and Cecile Lake.

1.3.2 Pre-contact Indigenous Resources

The study area has been potentially occupied from 7000 BCE (Before Common Era) until the present day. A summary of the culture history for the northern Lake Superior shore line is provided in Table 1 and is discussed further below.

Much of what is understood about the lifeways of these Indigenous peoples is derived from archaeological evidence and ethnographic analogy. In Ontario, Indigenous culture prior to the period of contact with European peoples has been distinguished into cultural periods based on observed changes in material culture. These cultural periods are largely based in observed changes in formal lithic tools, and separated into the Early Paleo-Indian, Late Paleo-Indian, Early Archaic, Middle Archaic, and Late Archaic periods.

Following the advent of ceramic technology in the Indigenous archaeological record, cultural periods are separated into the Early Woodland, Middle Woodland, and Late Woodland periods, based primarily on observed changes in formal ceramic decoration. It should be noted that these cultural periods do not necessarily represent specific cultural identities but are a useful paradigm for understanding changes in Indigenous culture through time. The current understanding of Indigenous archaeological culture is summarized in Table 1 below, based on Ellis and Ferris (1990). The provided time periods are based on the "Common Era" calendar notation system, i.e., Before Common Era (BCE) and Common Era (CE).

Table 1 Cultural Chronology of the Thunder Bay District

Period	Groups	Time Period	Comments
Paleo-Indian	Plano Group	7000 - 5000 BCE	unfluted projectile points; big game hunters; small camps along strandlines
Archaic	Shield Archaic	5000 - 500 BCE	seasonal camps; cold hammering of native copper
Initial Woodland	Laurel Culture	500 BCE - 1000 Common Era (CE)	introduction of pottery; evidence for exchange networks
Terminal Woodland	Blackduck Culture	1000 - 1650 CE	fabric-impressed globular ceramic vessels
Contact Indigenous	Various Algonkian Groups	1650 - 1850 CE	early European contact and fur trade
Late Historic	Euro-Canadian	1850 CE - present	European settlement and treaties

The following summary, of the possible archaeological resources and occupation north of the Lake Superior shore line, is based on Bray and Epp (1984), Dawson (1983b), Government of Ontario (1997), Hamilton (2013), Hinshelwood (2004), Julig (1994), Mason (2002), Morris (1943), Ross and Arthurs (1979), and Wright (1995-2004).

The north shore of Lake Superior was either beneath the Wisconsin Glacier or submerged under glacial Lake Minong until approximately 7000 BCE when Paleo-Indian groups moved into the area from the west or south. The Plano phase of the Paleo-Indian culture (7000 - 5000 BCE) includes a variety of temporal and regional variations in tool sets composed of unfluted points. Plano sites tend to be found on the beaches of the Upper Great Lakes and former

beaches on the shores of glacial lakes (strandlines). Evidence from Plano sites indicates a reliance on big-game hunting (i.e., caribou, extinct Pleistocene mammals) as well as the use of boats. Plano groups were likely small, occupying the same sites seasonally over a long period of time.

The Shield Archaic period (5000 - 500 BCE) in Northern Ontario is evidenced by campsites throughout the Canadian Shield. Early Shield Archaic hunters followed the same subsistence patterns as Plano hunters. As the Continental Glacier receded and the glacial lakes dried, Archaic hunters moved farther into the interior of Northern Ontario following the caribou and, for a brief period, moose populations. Tool technologies were adapted to include axes, adzes and chisels in response to the developing northern forests. Stone tools are generally ground or polished rather than the chipped and flaked tools that occurred in the Plano period and early Archaic. The addition of copper as a raw material led to the production of a more specialized Southern Shield Archaic tool set that included a variety of tools for woodworking and more commonly fishing. Fishing technology grew to include copper harpoons, fish hooks and large gaff hooks. In addition to tool technology development, ceremonial burial practices developed in the Southern Shield Archaic period to include the practice of depositing grave goods. There was also an increase in trade with groups throughout the Great Lakes region with trade networks extending into Southern Ontario and the American Midwest.

The Initial Woodland period in Northern Ontario (500 BCE - 1000 CE) is characterized by the introduction of ceramics as part of the Laurel culture. There is no evidence that ceramic technology developed independently in Northern Ontario, instead, the skill level indicates the introduction of a new group of people into Northern Ontario. Settlement patterns of the Initial Woodland period indicate seasonal settlement generally along major watercourses. Subsistence continued to depend more heavily on hunting in the interior of Northern Ontario and on fishing in the Upper Great Lakes Region. New tool technologies include net sinkers, which have been found at sites along the shore of Lake Superior and red ochre appears to have been used as pigment. The practice of using burial mounds was also adopted during the Initial Woodland period.

The Terminal Woodland period (1000 - 1650 CE) is marked by changes in the shape of ceramic artifacts. Whereas Initial Woodland ceramics were generally conical in shape with stamped decoration, Terminal Woodland ceramics were globular and fabric or cord impressed. As with the introduction of Laurel pottery, there is no evidence that Terminal Woodland Blackduck ceramics developed in Northern Ontario. Throughout the Terminal Woodland, sites become larger and more extensive although they remain seasonal in nature. Villages were likely composed of extended families or hunting bands. Rock paintings also appear during the Terminal Woodland.

The Algonkian culture moved into Northern Ontario during the Terminal Woodland and is identified through the development of new pottery types. Small scrapers and projectile points used for hunting and fur processing become an integral component of the stone tool set as well as bone awls and copper knives, fish hooks and scrapers. Algonkian groups became more mobile as food sources became sparser and seasonally unreliable as the climate changed during the Little Ice Age (*circa* 1550 CE). Trade networks with Iroquoian villages to the south were established allowing Algonkian hunters to exchange furs for agricultural goods.

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 km east-west by 18.5 km north-south. In Northern Ontario, adjacent to Hudson Bay, each basic unit measures approximately 10.2 km east-west by 18.5 km 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 MHSTCI who maintain the *Ontario Archaeological Sites Database*. The study area under review is located within Borden Block DkIr.

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 MHSTCI 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.

A query of the *Ontario Archaeological Sites Database* has shown that no archaeological sites have been registered within a one km radius of the study area (Government of Ontario 2019a). The nearest registered archaeological sites are approximately four km to the southwest and approximately five km to the east in MacLeod Provincial Park outlined in Table 2. The one site to the southwest is summarized below when discussing previous reporting in proximity to the study area, while the five sites in MacLeod Provincial Park are further summarized below.

Table 2: Registered Archaeological Sites within Five Kilometres of the Study Area

Borden	Site Name	Site Type	Cultural Affiliation
DkIr-1	North Point	Campsite	Woodland, Indigenous
DkIr-2	Bridgeview	Not Applicable (N/A)	Archaic, Indigenous
DkIr-3	Campsite 23	N/A	Indeterminate Indigenous
DkIr-4	N/A	N/A	Indeterminate Indigenous
DkIr-5	N/A	N/A	Indeterminate Indigenous
DjIs-1	Location 1	Lithic Scatter	Indeterminate Indigenous

The North Point site (DkIr-1) was first reported in 1973, with repeated work on the site through the 1980s. The site is recorded as an Initial Woodland period Indigenous campsite with also material dating to the post-contact period, specifically the late 17th and early 18th centuries. The site assemblage includes fragments of Taconite Jasper (a siliceous material which outcrops along the Lake Superior north shore (Dawson 1983a) as well as copper artifacts and gun fragments (Government of Ontario 2019a.

The Bridgeview site (DkIr-2) was first reported in 1973 with repeated collection work on the site through the 1970s and 1980s. The assemblage consists of chipped stone artifacts, a copper artifact, and a gunflint; the copper artifact is speculated to be Archaic in date (Government of Ontario 2018).

The Campsite 23 site (DkIr-3) was reported in 1985. The site is an Indigenous site of indeterminate age. The assemblage consists of a small collection of Hudson's Bay Lowland chert flakes recovered from a surface scatter (Government of Ontario 2019a).

Site DkIr-4 was reported in 1986. The site is an Indigenous site of indeterminate age. The assemblage consists of three Hudson's Bay Lowland chert flakes recovered from a surface scatter (Government of Ontario 2019a).

Site DkIr-5 was reported in 1986. The site is an Indigenous site of indeterminate age. The assemblage consists of a single ground slate projectile point recovered from a surface context (Government of Ontario 2019a).

These sites are each indicative of the long-distance north-south travel routes and exchange networks crossing the northwestern Ontario interior between the Lake Superior and Hudson's Bay basins.

Based on a query of the *Ontario Public Register of Archaeological Reports*, five previous archaeological assessments have been completed within 50 metres of the study area (Government of Ontario 2019b). These assessments are summarized in Table 3 and further discussion of the Project's associated Stage 1 report is provided in Section 1.3.4 below.

Table 3: Previous Archaeological Assessments within 50 Metres of the Study Area

Date	Report Title	Project Information Form (PIF) Number	Consultant
2014	*Premier Gold Mines Limited Hardrock Site: Stage 1 Archaeological Assessment*	P256-0023-2013	Stantec
2015a	*Environmental Baseline Data Report – Hardrock Project: Stage 2 Archaeological Assessment*	P256-0302-2014	Stantec
2015b	*Supplemental 2015 Stage 2 Archaeological Assessment of Additional Lands – Hardrock Project*	P083-0263-2015	Stantec
2018	*Greenstone Pipeline Project Stage 1 Archaeological Assessment*	P083-0321-2018	Stantec
2019	*Stage 2 Archaeological Assessment Greenstone Gold Mines Hardrock Mine Property, Additional Lands Geraldton, Municipality of Greenstone, District of Thunder Bay, Ontario*	P074-0013-2018	Timmins Martelle Heritage Consultants Inc. (TMHC)

Stantec (2014) completed a Stage 1 archaeological assessment for Premier Gold Mines Limited of the Hardrock Site in the Municipality of Greenstone, Thunder Bay District, Ontario under PIF # P256-0023-2013. This assessment recommended Stage 2 archaeological assessment for part of the study area. The southern portion of the Greenstone Pipeline study area partially overlaps with portions of the Premier Gold Mines Limited study area as illustrated in Figures 4-F to F4-J of this report. However, the Premier Gold Mines Limited study area also extends farther south than the current study area.

Stantec (2015a) completed a Stage 2 archaeological assessment for Premier Gold Mines Hardrock Inc. in the Municipality of Greenstone, Thunder Bay District, Ontario under PIF # P256-0302-2014. This assessment surveyed part of the study area for the current Project. No archaeological resources were identified by Stantec (2015a).

Stantec (2015b) completed a supplemental Stage 2 archaeological assessment of additional lands for the Hardrock Project in the Municipality of Greenstone, Thunder Bay District, Ontario under PIF # P083-0263-2015. This assessment surveyed part of the study area for the current Project. No archaeological resources were identified by Stantec (2015b).

TMHC (2019) completed a Stage 2 archaeological assessment of the Hardrock Project on behalf of Long Lake #58 First Nation under PIF # P074-0013-2018. No sites were found within 50 metres of the current study area for the Project. However, TMHC (2019) did identify one archaeological site, Location 1 (DjIs-1), during their assessment. Location 1 (DjIs-1), is located more than three km from the current study area for the Project and comprises a lithic scatter consisting of six pieces of Hudson Bay Lowland chert chipping detritus. Stage 3 archaeological assessment was recommended for Location 1 (DjIs-1) by TMHC (2019).

1.3.4 Summary of Previous Archaeological Investigations

Stantec (2018) completed a Stage 1 archaeological assessment for the Project under PIF # P083-0321-2018. The Stage 1 archaeological assessment recommended Stage 2 survey standards specific to special conditions of the Canadian Shield as per Section 1.3.3 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). As such, the standard strategies for the Stage 2 survey were recommended as outlined in Section 2.1.5 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Due to the fact that no property inspection was conducted during the Stage 1 archaeological assessment, for the portions of the study area within the Geraldton Townsite a test pit survey at 10-metre intervals within the townsite was also recommended to document the extent of any modern disturbance, as per Sections 2.1.8 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011b). It was recommended that for the areas where previous disturbance cannot be confirmed the survey interval be reduced to five metres. Finally, for the remainder of the study area which does not retain archaeological potential, no further archaeological fieldwork was recommended (Stantec 2018:3.1).

1.3.5 Existing Conditions

The study area comprises an approximately 14.3 km linear alignment within the existing road right-of-way, marked in the field with pink stakes or flags. The centreline of the proposed pipeline alignment was marked in the field with the white stakes. Geographically, the study area includes a large percentage of forested land interspersed with lakes, permanently wet areas, and other watercourses. The northern portion of the study area runs within the Highway 584 road ROW. Approximately 3.5 km of the study area runs through the existing town site of Geraldton. The southern portion of the study area runs for approximately 3.0 km along Old Arena Road. The 2.6-km-long southern portion of the proposed pipeline runs across undeveloped lands and within the Highway 11 road ROW and then into undeveloped lands to the proposed Hardrock Processing Facility. Overall, the Stage 2 study area comprises 62.14 hectares.

2.0 FIELD METHODS

The Stage 2 archaeological assessment was conducted under archaeological consulting license P256 issued to Parker Dickson of Stantec by the MHSTCI. The Stage 2 archaeological assessment of the study area was conducted between October 16, 2019 and October 18, 2019 under PIF # P256-0595-2019. During the Stage 2 survey, assessment conditions were adequate for survey and at no time were the field, weather, or lighting conditions detrimental to the identification and recovery of archaeological material (Table 4). Photographic documentation in Section 8.1 of this report confirms that field conditions met the requirements for a Stage 2 archaeological assessment, as per the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Section 7.8.6 Standard 1a; Government of Ontario 2011). Figure 4 provides an illustration of the Stage 2 assessment methods, as well as photograph locations and directions.

Table 4: Weather and Field Conditions during the Stage 2 Survey

Date	Activity	Weather	Field Conditions	Field Directors
October 16, 2019	Test pit survey	Overcast and cool	Soils friable and dry	Hillary Schwering (R1064), Nathan Ng (R1223)
October 17, 2019	Test pit survey	Overcast and cool	Soils friable and dry	Hillary Schwering (R1064), Nathan Ng (R1223)
October 18, 2019	Test pit survey	Overcast and cool	Soils friable and dry	Hillary Schwering (R1064), Nathan Ng (R1223)

The Stage 2 study area comprises approximately 62.142 ha. The majority of the Stage 2 study area is located within forested areas with bedrock outcroppings, typical of the Canadian shield physiographic region. The study area also includes areas of modern disturbance and low and permanently wet areas.

Approximately 9.64% (5.99 ha) of the study area was subject to Stage 2 test pit survey at a five metre interval. The test pit survey was conducted in accordance with Section 2.1 and Section 2.1.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The Stage 2 test pit survey at a five metre interval was conducted in accordance with Section 2.1.5 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Each test pit was approximately 30 centimetres in diameter and excavated five centimetres into sterile subsoil. The soils were then examined for stratigraphy, cultural features, or evidence of fill. Soil was screened through six millimetre mesh hardware cloth to facilitate the recovery of small artifacts and then used to backfill the pit. The test pits were backfilled after excavation. No archaeological resources were identified and so no further field methods were required.

Approximately 39.92% (24.81 ha) of the study area was disturbed due to municipal road and utilities construction, as well as various paved and gravel laneway constructions. These areas were not subject to Stage 2 survey but were documented as disturbed as per Section 2.1 Standard 2b of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The disturbed areas were photo documented as per

Section 7.8.6 Standard 1b of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

Approximately 4.07% (2.53 ha) of the study area consisted of exposed or shallowly buried bedrock. Low and permanently wet areas accounted for 4.29% (2.67 ha) of the study area. Both of these areas were not subject to Stage 2 survey as per Section 2.1 Standard 2a of the MHSTCI's 2011 *Standards and Guidelines for Consultant* Archaeologists (Government of Ontario 2011). Both the exposed bedrock and the low and permanently wet areas were photo documented as per Section 7.8.6 Standard 1b of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

The remaining 42.06% (26.14 ha) of the study area was previously assessed and not surveyed (Stantec 2014; Stantec 2015a; and Stantec 2015b).

Interested Indigenous communities were also involved with the field work component of the Stage 2 archaeological assessment for the Project. Their activities are discussed in the Record of Indigenous Engagement associated with this report.

3.0 RECORD OF FINDS

The Stage 2 archaeological assessment was conducted employing the methods described in Section 2.0. An inventory of the documentary record generated by fieldwork is provided in Table 5.

Table 5: Inventory of Documentary Record

Document Type	Current Location of Document Type	Additional Comments
6 pages of field notes	Stantec office in Hamilton, Ontario	In original field book and scanned in project file
6 maps provided by Enbridge Gas	Stantec office in Hamilton, Ontario	Hard and digital copies in project file
244 digital photographs	Stantec office in Hamilton, Ontario	Stored digitally in project file

No archaeological resources were identified during the Stage 2 archaeological assessment of the study area and so no material culture was collected. As a result, no artifact storage arrangements were required.

4.0 ANALYSIS AND CONCLUSIONS

Previously, Stantec (2018) determined that the Stage 2 study area for the Project retained archaeological potential. A Stage 2 archaeological assessment was completed by Stantec between October 16, 2019 and October 18, 2019 under PIF # P256-0595-2019. Figure 4 provides an illustration of the results of the Stage 2 archaeological assessment. No archaeological resources were identified by Stantec within the Stage 2 study area.

5.0 RECOMMENDATIONS

No archaeological resources were identified during the Stage 2 archaeological assessment of the study area. Thus, in accordance with Section 2.2 and Section 7.8.4 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), **no further work is required for the study area**.

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

6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

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 project area of a development proposal have been addressed to the satisfaction of the Ministry of Heritage, Sport, Tourism and Culture Industries, 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 human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Government and Consumer Services.

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8.0 IMAGES

8.1 PHOTOGRAPHS

Photo 1: Stage 2 test pit survey at five metre intervals, facing northeast



Photo 2: Permanently low and wet area and not surveyed, facing south



Photo 3: Permanently low and wet area and not surveyed, facing northwest



Photo 4: Area of exposed bedrock and not surveyed, facing northeast



Photo 5: Disturbed area due to ditching, grading, and hydro line construction – not surveyed, facing south



Photo 6: Disturbed area due to grading, ditching and installation of road and culvert – not surveyed, facing north



Photo 7: Permanently low and wet area and not surveyed, facing northwest



Photo 8: Disturbed area due to the installation of buried utilities – not surveyed, facing south



Photo 9: Disturbed area due to the installation of buried utilities – not surveyed, facing southwest



Photo 10: Disturbed area due to ditching and culvert installation – not surveyed, facing southwest



Photo 11: Disturbed area due to grading for road and utility installation – not surveyed, facing west



Photo 12: Disturbed area due to ditching from road and bridge installation – not surveyed, facing south



Photo 13: Area of exposed bedrock along Old Arena Road, not surveyed, looking southwest



Photo 14: Area of exposed bedrock and not surveyed, looking southwest



Photo 15: Area of exposed bedrock and not surveyed, looking down



Photo 16: Stage 2 test pit survey at five metre intervals, facing east



Photo 17: Stage 2 test pit survey at five metre intervals, facing west



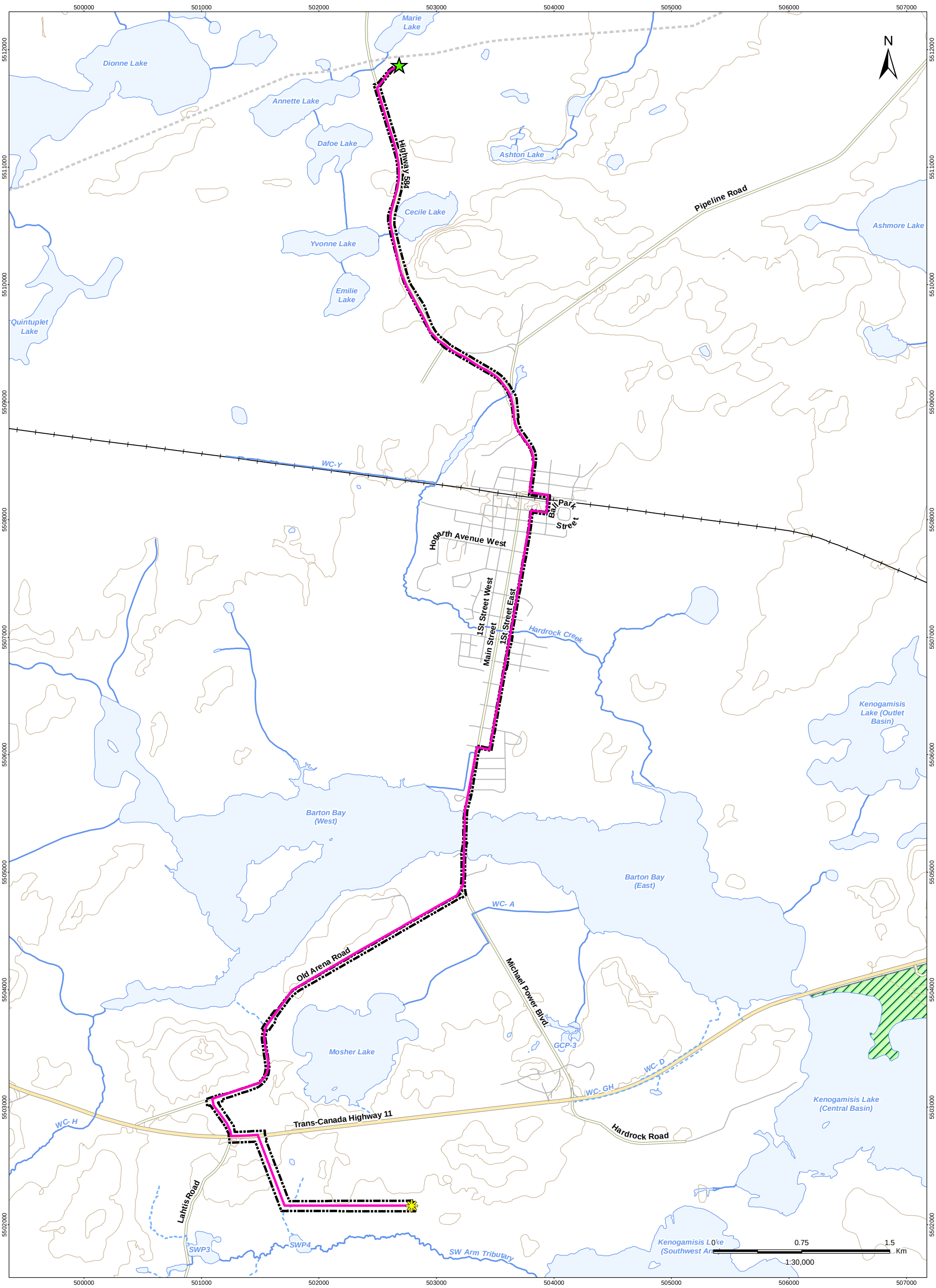
Photo 18: Stage 2 test pit survey at five metre intervals, facing northwest



9.0 MAPS

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

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Notes

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Legend

- Study Area
- Existing Union Gas Station
- Proposed Hardrock Processing Facility
- Preliminary Preferred Route
- Trans Canada Pipeline
- Contour Line (10 m intervals)
- Highway
- Major Road
- Local Road
- Watercourse- Permanent
- Watercourse- Intermittent
- Waterbody

Client/Project

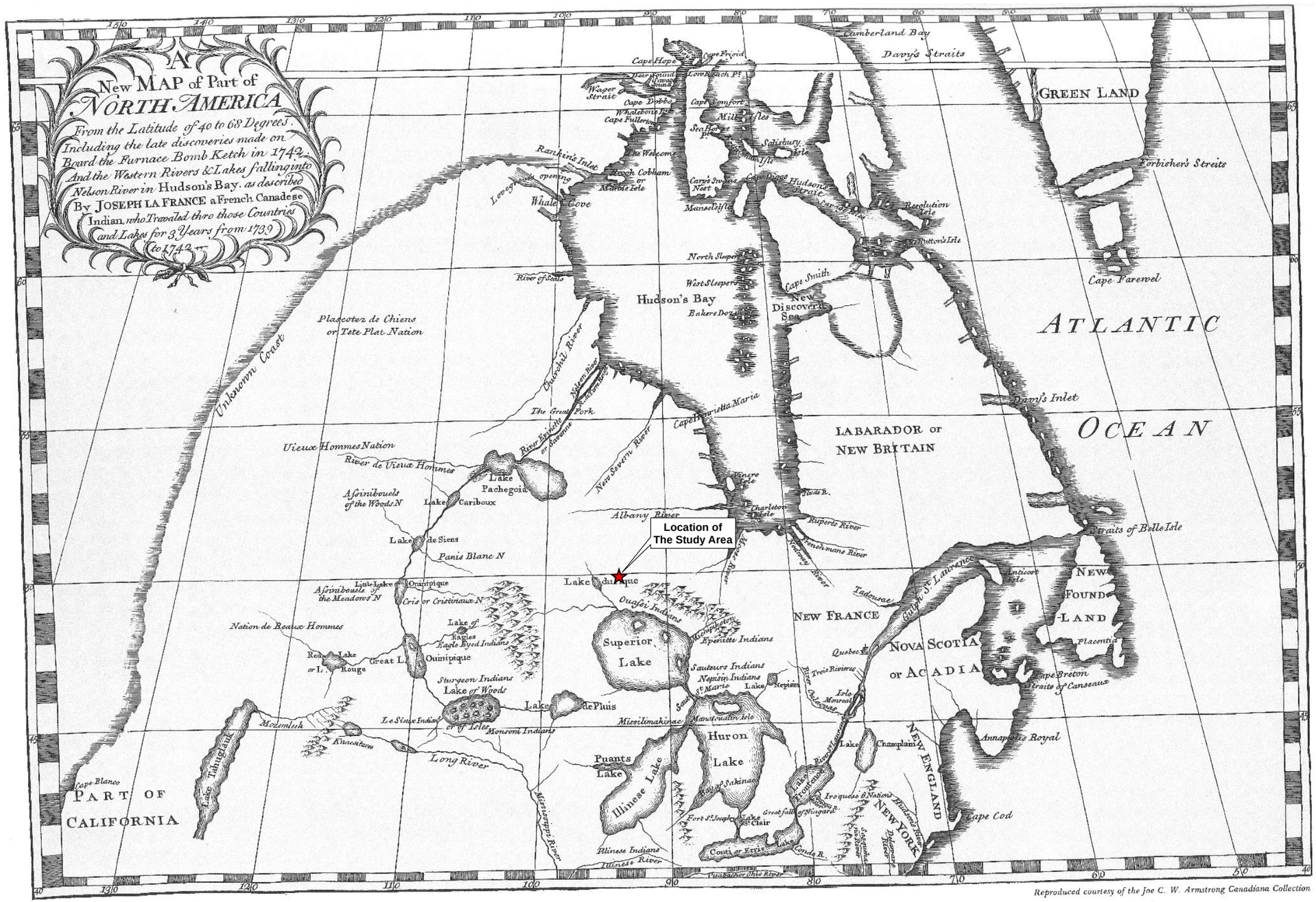
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Stage 2 Archaeological Assessment Report

Figure No.

1

Title

Study Area



Notes

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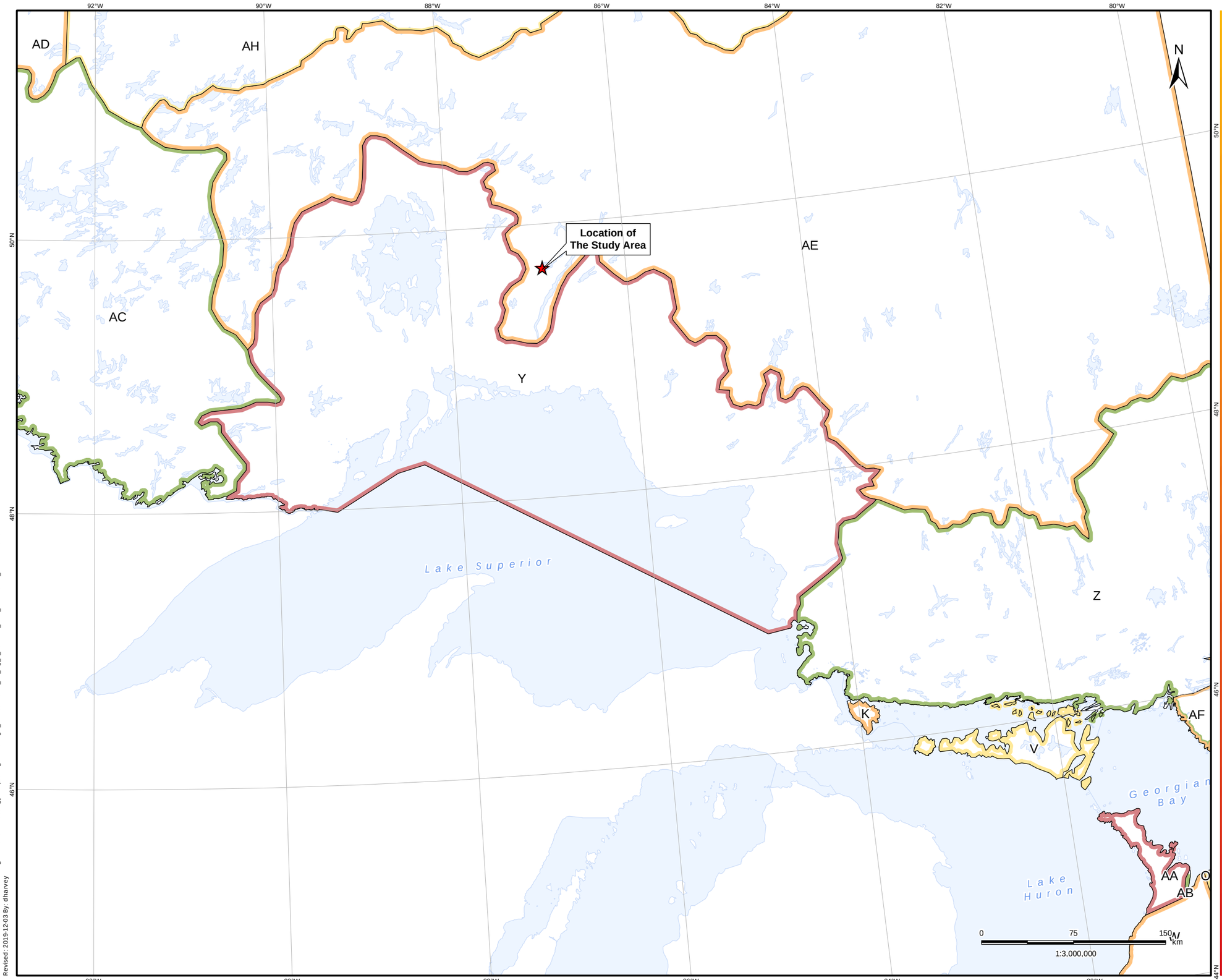
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Figure No.
2

Title
LaFrance Historical Map 1744

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Legend

- Location of The Study Area
- Waterbody

K Treaty No. 11, June 30th, 1798 (Chippewa)
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, September 9th, 1850 (Robinson Treaty:Ojibwa)
AA Treaty No. 72, October 30th, 1854 (Chippewa)
AB Treaty No. 82, February 9th, 1857 (Chippewa)
AF Williams Treaty, October 31st and November 15th, 1923 (Chippewa and Mississauga)
AC Treaty No. 3 Manitoba, 1873 (Ojibwa)
AD Treaty No. 3 Manitoba, 1873 (Saulteax and Swampy Cree)
AE James Bay Treaty No. 9, 1905-1906 (Ojibwa and Cree)
AH Adhesion to Treaty, No. 9, May 30 1923

Notes

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3. Treaty boundaries adapted from Morris 1943 (1964 reprint). For cartographic representation only.

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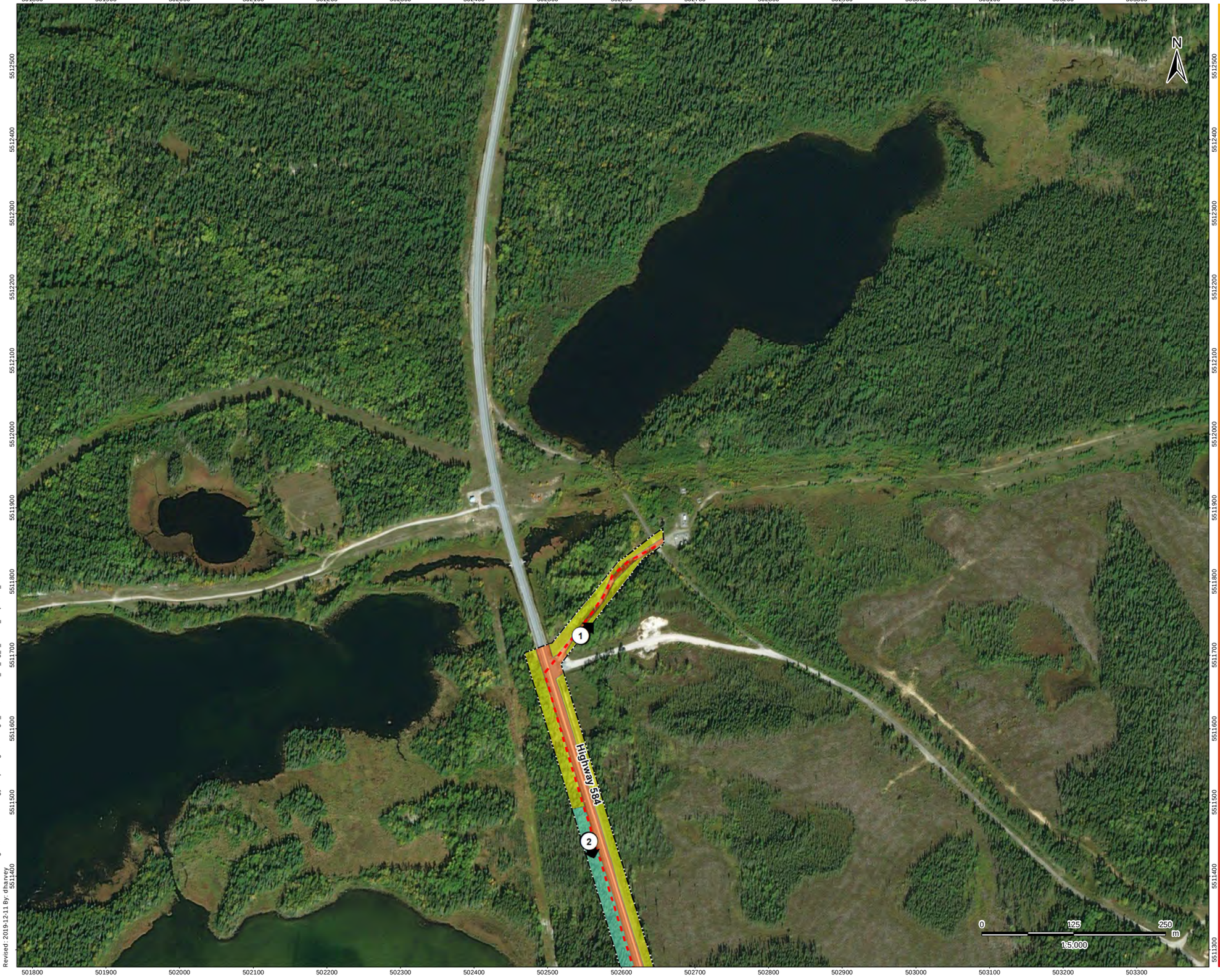
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Greenstone Pipeline Project
Stage 2 Archaeological
Assessment Report

Figure No.

3

Title

Treaties and Surrenders



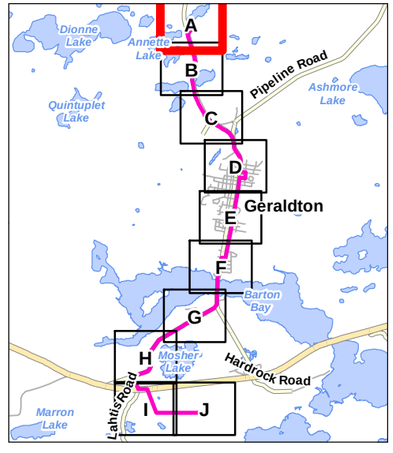
Stantec

Legend

- Study Area
- Existing Enbridge Gas Station
- Preliminary Preferred Route
- Photo Location and Direction
- Major Road

Stage 2 Survey Methods

- Areas Low and Permanently Wet, Not Surveyed
- Areas Disturbed due to Modern Construction, Not Surveyed
- Areas of Stage 2 Test Pit Survey at 5m intervals



Notes

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Stage 2 Archaeological
Assessment Report

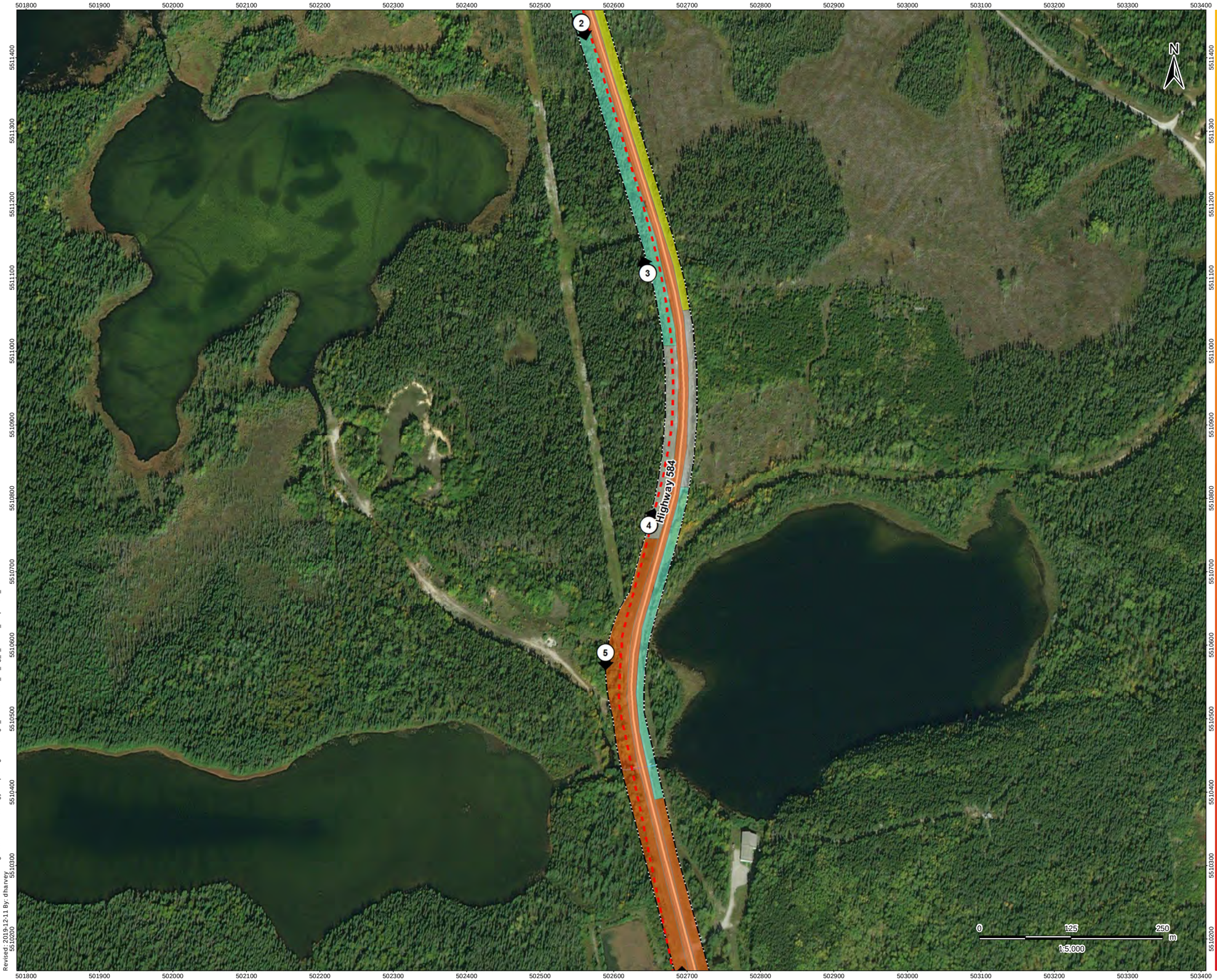
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4 - A

Title

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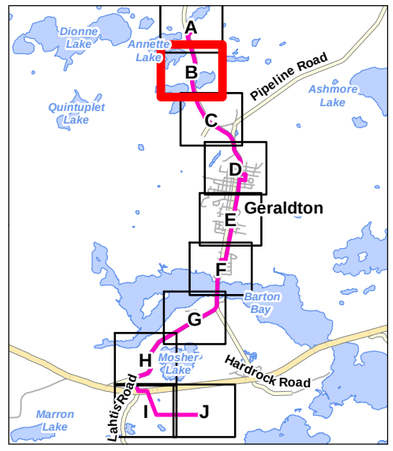
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Legend

- Study Area
- Preliminary Preferred Route
- Photo Location and Direction
- Major Road
- Railway
- Watercourse

Stage 2 Survey Methods

- Areas of Exposed Bedrock, Not Surveyed
- Areas Low and Permanently Wet, Not Surveyed
- Areas Disturbed due to Modern Construction, Not Surveyed
- Areas of Stage 2 Test Pit Survey at 5m intervals



Notes

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Stage 2 Archaeological Assessment Report

Figure No.
4 - B

Title
Stage 2 Archaeological Assessment Methods



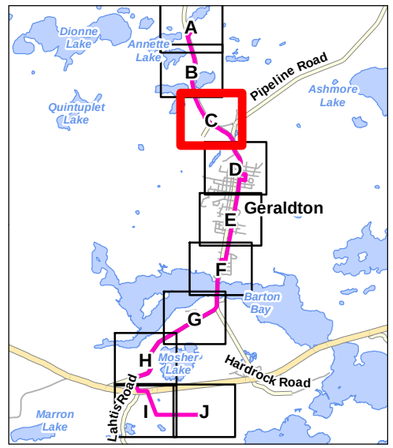
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Legend

- Study Area
- Preliminary Preferred Route
- Photo Location and Direction
- Major Road
- Local Road
- Railway
- Watercourse

Stage 2 Survey Methods

- Areas Low and Permanently Wet, Not Surveyed
- Areas Disturbed due to Modern Construction, Not Surveyed



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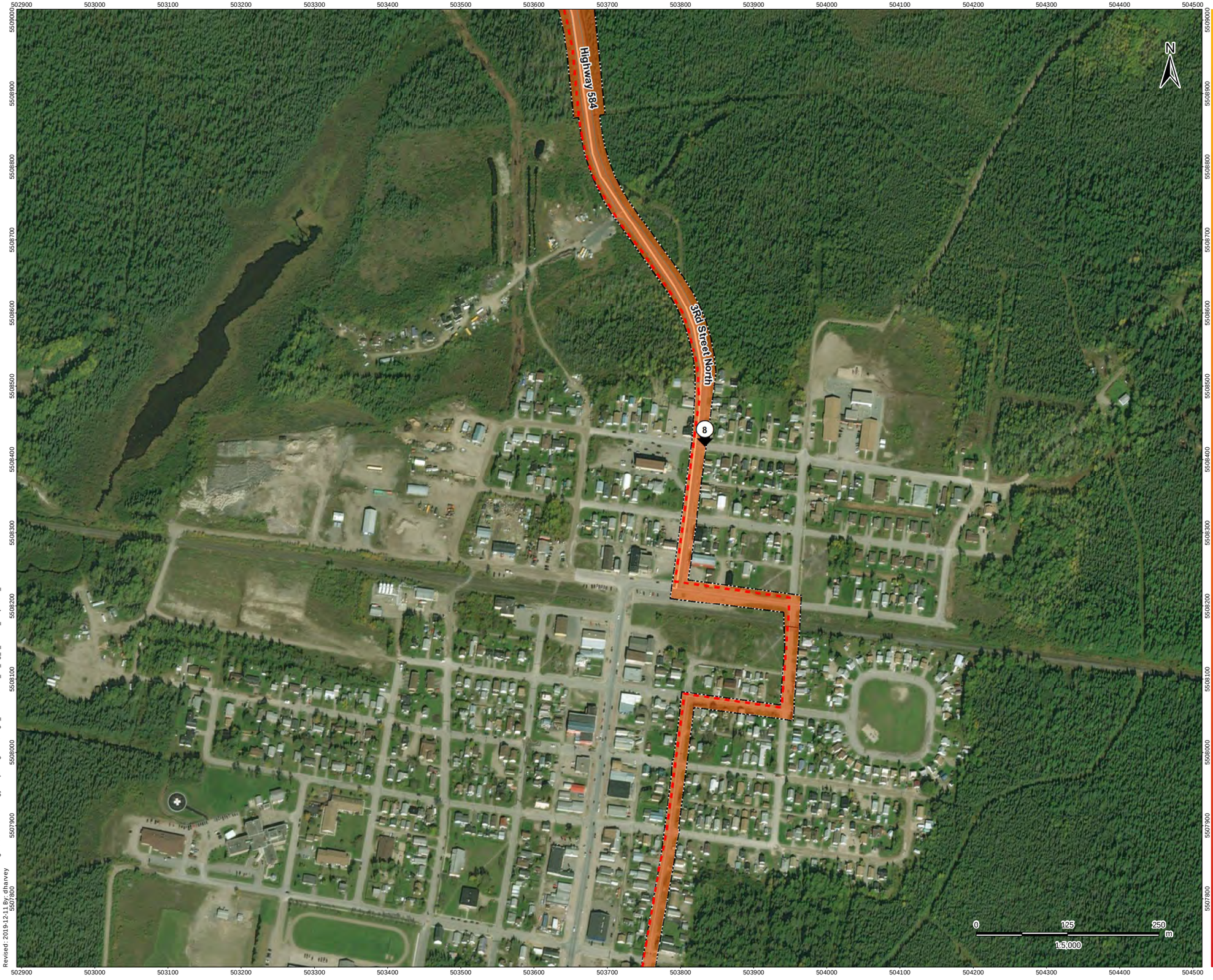
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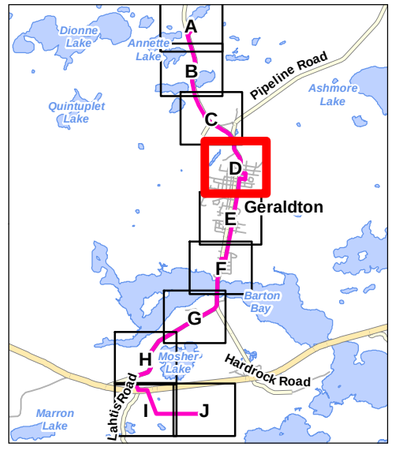
Client/Project
Enbridge Gas Inc.
Greenstone Pipeline Project
Stage 2 Archaeological
Assessment Report

Figure No.
4 - C

Title
Stage 2 Archaeological Assessment Methods

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Legend

- Study Area
- Preliminary Preferred Route
- Photo Location and Direction
- Major Road
- Local Road
- Railway
- Watercourse

Stage 2 Survey Methods

- Areas Disturbed due to Modern Construction, Not Surveyed

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Figure No.
4 - D

Title
Stage 2 Archaeological Assessment Methods

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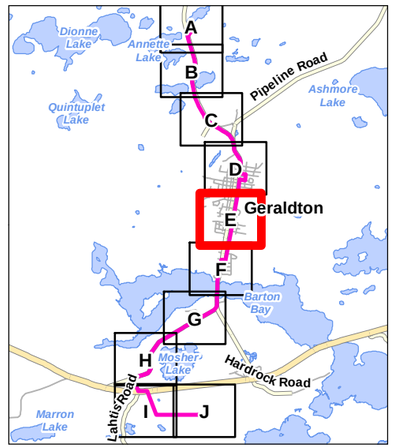
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Legend

- Study Area
- Preliminary Preferred Route
- Photo Location and Direction
- Local Road
- Railway
- Watercourse
- Waterbody

Stage 2 Survey Methods

- Areas Disturbed due to Modern Construction, Not Surveyed



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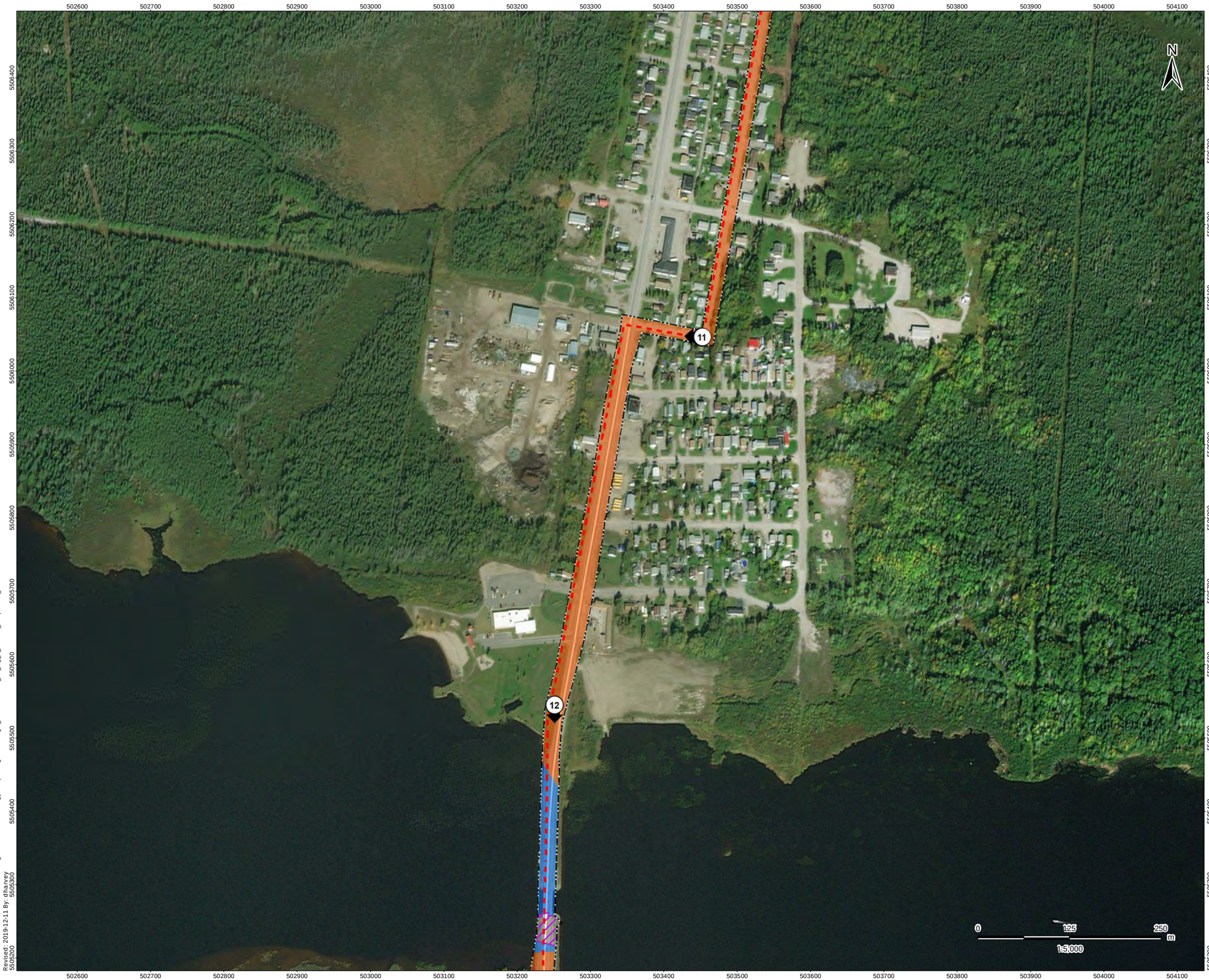
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Figure No.
4 - E

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Stage 2 Archaeological Assessment Methods

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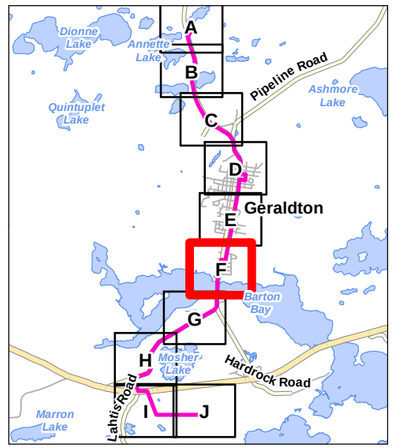
- Study Area
- Preliminary Preferred Route
- Photo Location and Direction
- Major Road
- Local Road
- Waterbody

Stage 2 Survey Methods

- Areas Disturbed due to Modern Construction, Not Surveyed
- Water

Previously Assessed Areas

- Previously Assessed (Stantec 2014, 2015a, 2015b)



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Figure No.
4 - F

Title
Stage 2 Archaeological Assessment Methods



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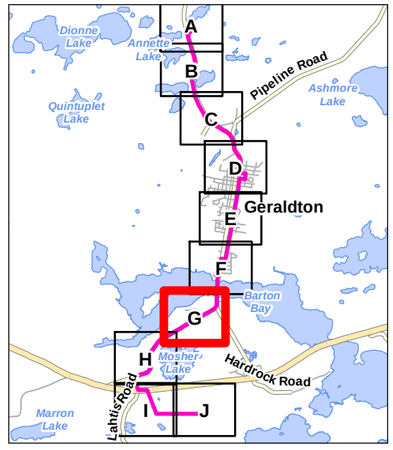
- Study Area
- Preliminary Preferred Route
- Photo Location and Direction
- Major Road
- Local Road
- Waterbody

Stage 2 Survey Methods

- Areas of Exposed Bedrock, Not Surveyed
- Areas Disturbed due to Modern Construction, Not Surveyed
- Water

Previously Assessed Areas

- Previously Assessed (Stantec 2014, 2015a, 2015b)



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Client/Project

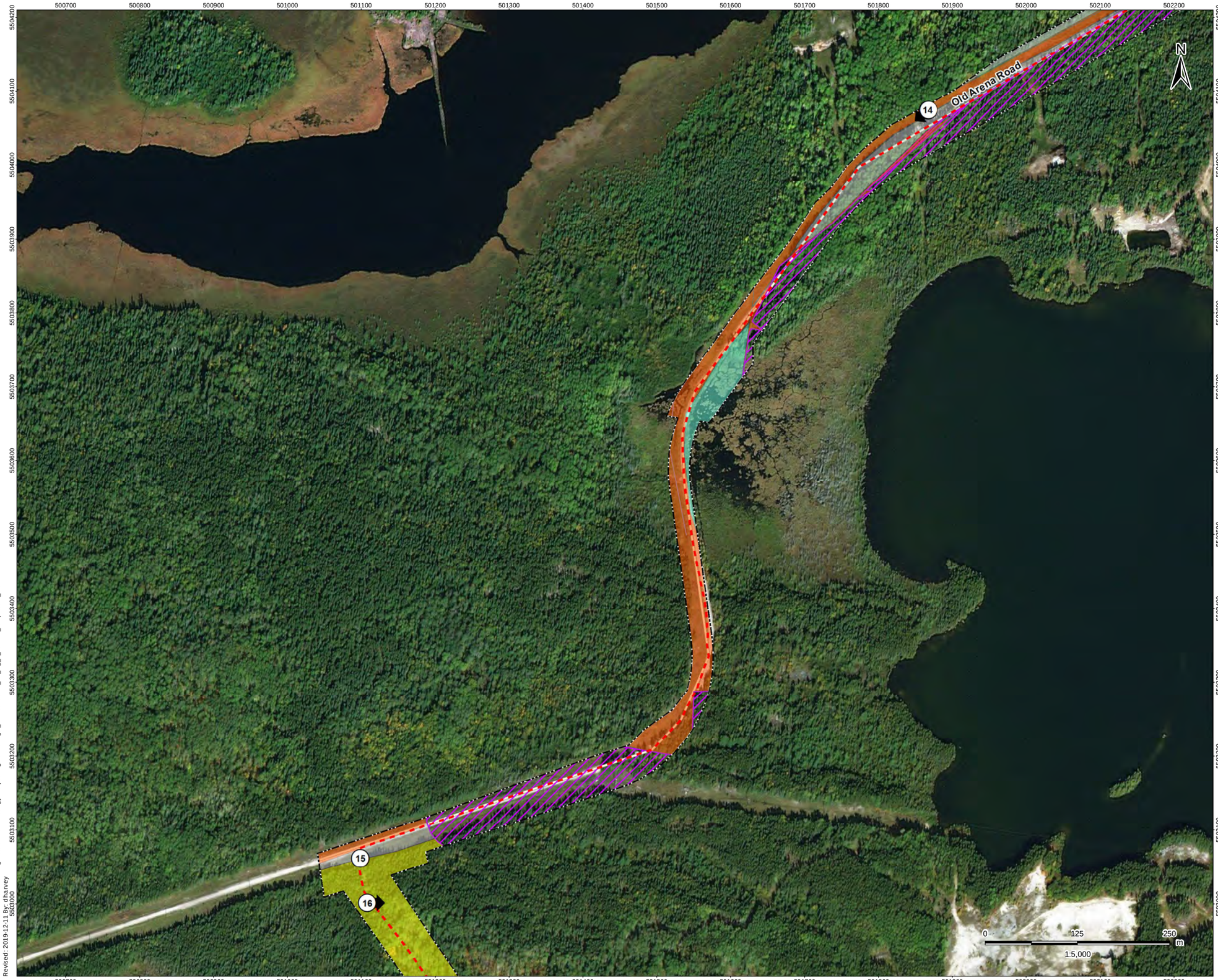
Enbridge Gas Inc.
Greenstone Pipeline Project
Stage 2 Archaeological
Assessment Report

Figure No.

4 - G

Title

Stage 2 Archaeological Assessment Methods



Stantec

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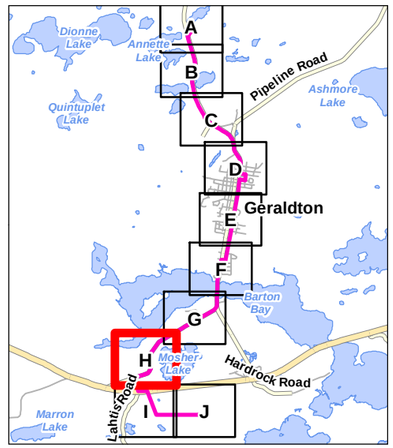
- Study Area
- Preliminary Preferred Route
- Photo Location and Direction
- Photo Location Facing Down
- Major Road
- Watercourse
- Waterbody

Stage 2 Survey Methods

- Areas of Exposed Bedrock, Not Surveyed
- Areas Low and Permanently Wet, Not Surveyed
- Areas Disturbed due to Modern Construction, Not Surveyed
- Areas of Stage 2 Test Pit Survey at 5m intervals

Previously Assessed Areas

- Previously Assessed (Stantec 2014, 2015a, 2015b)



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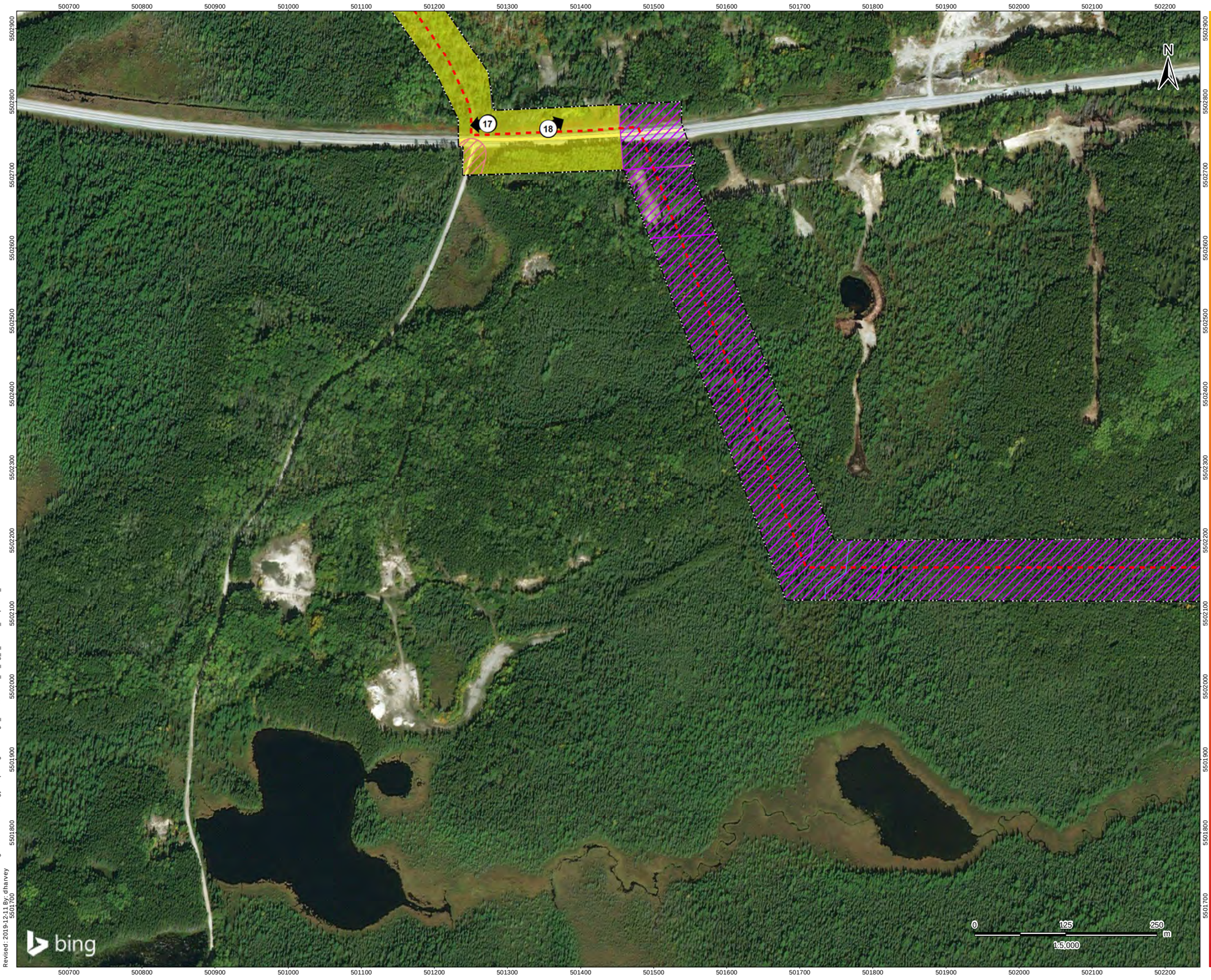
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Stage 2 Archaeological Assessment Methods

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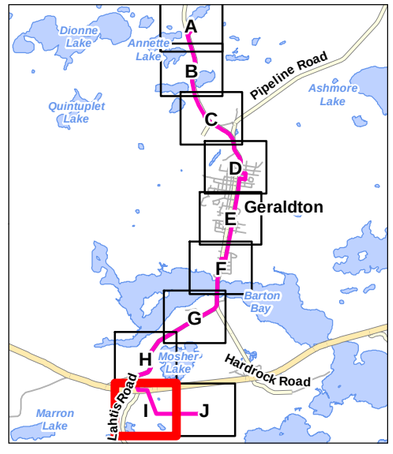
- Study Area
- Preliminary Preferred Route
- Photo Location and Direction
- Highway
- Major Road
- Watercourse

Stage 2 Survey Methods

- Areas of Stage 2 Test Pit Survey at 5m intervals

Previously Assessed Areas

- Previously Assessed (Stantec 2014, 2015a, 2015b)



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Assessment Report

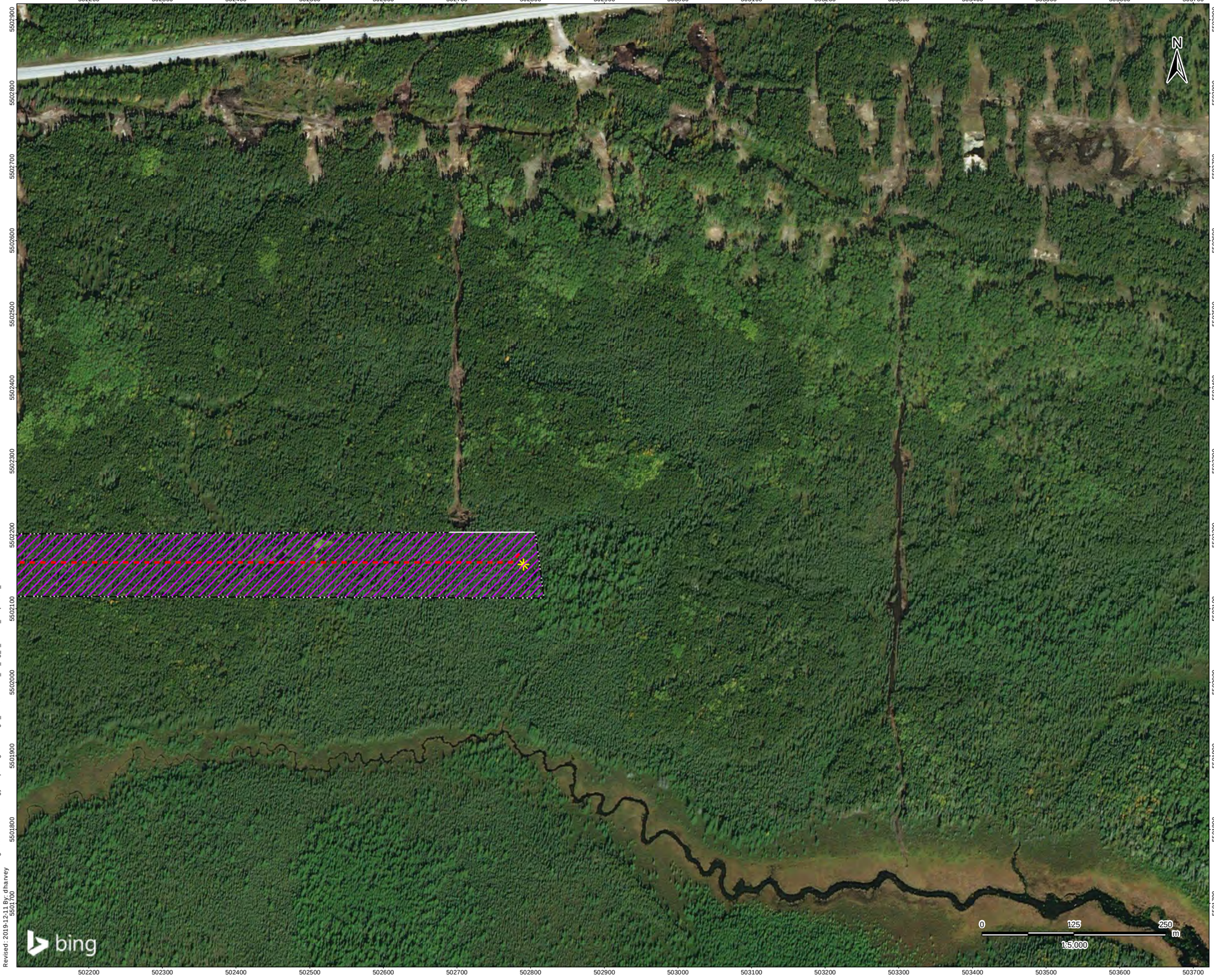
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Title

Stage 2 Archaeological Assessment Methods

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Revised: 2019-12-11 By: dharvey



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Revised: 2019-12-11 By: dharvey

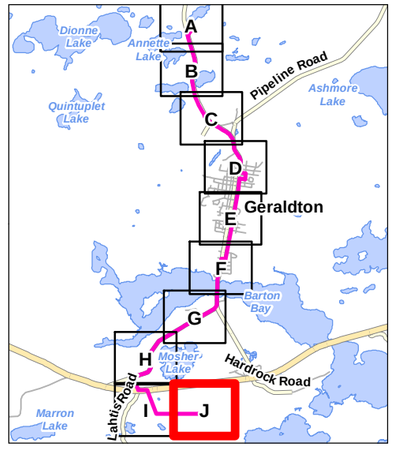
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Legend

- Study Area
- Proposed Hardrock Processing Facility
- Preliminary Preferred Route
- Major Road

Previously Assessed Areas

- Previously Assessed (Stantec 2014, 2015a, 2015b)



Notes

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December 2019
160960975

Client/Project

Enbridge Gas Inc.
Greenstone Pipeline Project
Stage 2 Archaeological
Assessment Report

Figure No.

4 - J

Title

Stage 2 Archaeological Assessment Methods

10.0 CLOSURE

This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided. No other representations, warranties or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential archaeological resources associated with the identified property.

All information received from the client or third parties in the preparation of this report has been assumed by Stantec to be correct. Stantec assumes no responsibility for any deficiency or inaccuracy in information received from others.

Conclusions made within this report consist of Stantec's professional opinion as of the time of the writing of this report and are based solely on the scope of work described in the report, the limited data available and the results of the work. The conclusions are based on the conditions encountered by Stantec at the time the work was performed. Due to the nature of archaeological assessment, which consists of systematic sampling, Stantec does not warrant against undiscovered environmental liabilities nor that the sampling results are indicative of the condition of the entire property.

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STANTEC CONSULTING LTD.

Quality Review 

(signature)

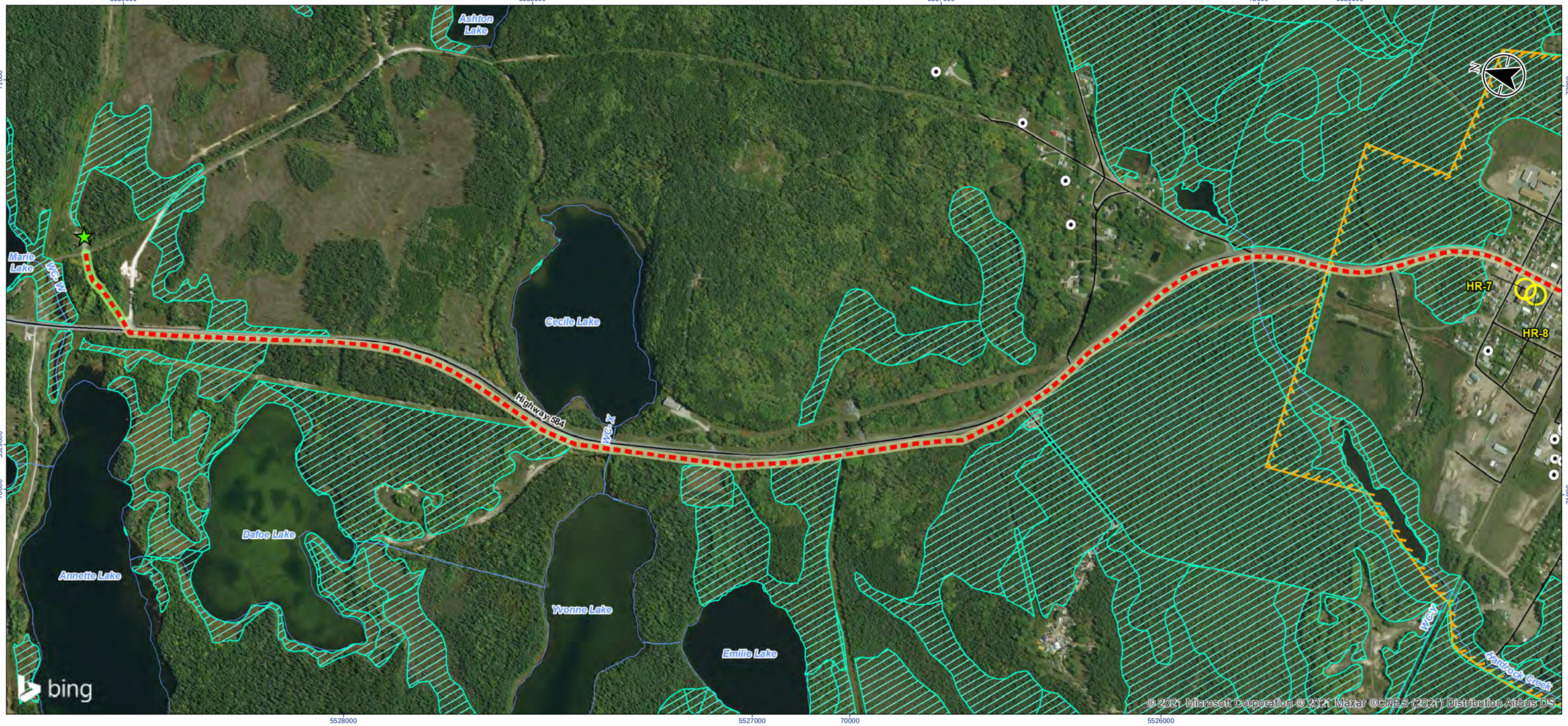
Jeffrey Muir – Senior Archaeologist

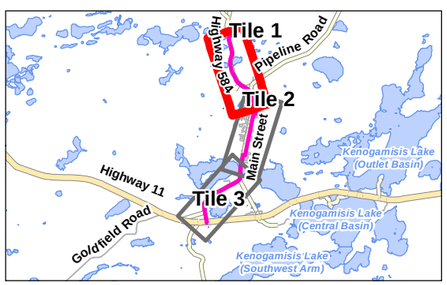
Independent Review 

(signature)

Parker Dickson – Associate, Senior Archaeologist

APPENDIX G
PHOTO MOSAIC





Notes

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Legend

- Preferred Route - See Notes 1-5 for general mitigation measures
- Cross Country Route - See Notes 17-23
- Roadside Route
- Existing Enbridge Gas Station
- Identified Heritage Resource - See Note 32
- Water Well Record (MECP) Water Well Record (MECP) - See Note 16
- Urban Settlement Area - See Notes 6-15
- Wetland (Stantec, Ecosite) - See Notes 30-31
- Watercourse- Permanent - See Notes 24-29 and 31
- Waterbody - See Notes 24-29 and 31

0 250 500 metres

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Stantec

Project Location
Municipality of Greenstone

160961408 REVA
Prepared by DH on 2021-08-08

Client/Project
ENBRIDGE GAS INC.
GREENSTONE PIPELINE PROJECT

Tile No.
1

Title
Mitigation Photo Mosaic

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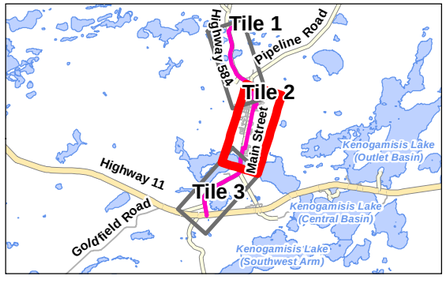
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HR-2
HR-3
HR-4
HR-5
HR-1
HR-7
HR-9
HR-6
HR-8
1St Street East
1St Street West
Main Street
Hardrock Creek
Barton Bay (East)
Barton Bay (West)
ROSEDALE POINT
N
bing
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5526000 71000 5525000 5524000 5523000 70000



Notes
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Legend
- Preferred Route - See Notes 1-5 for general mitigation measures
- Roadside Route
- Identified Heritage Resource - See Note 32
- Water Well Record (MECP) Water Well Record (MECP) - See Note 16
- Historic Tailings Area
- Urban Settlement Area - See Notes 6-15
- Wetland (Stantec, Ecosite) - See Notes 30-31
- Watercourse- Permanent - See Notes 24-29 and 31
- Waterbody - See Notes 24-29 and 31

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Project Location
Municipality of Greenstone

160961408 REVA
Prepared by DH on 2021-08-08

Client/Project
ENBRIDGE GAS INC.
GREENSTONE PIPELINE PROJECT

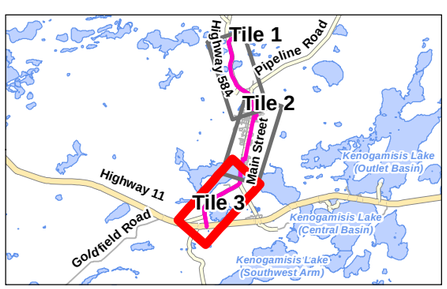
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Legend

- Preferred Route - See Notes 1-5 for general mitigation measures
- Cross Country Route - See Notes 17-23
- Roadside Route
- Historical Mine Shafts
- Identified Heritage Resource - See Note 32
- Water Well Record (MECP) Water Well Record (MECP) - See Note 16
- Historic Tailings Area
- Mosher Pit
- Urban Settlement Area - See Notes 6-15
- Wetland (Stantec, Ecosite) - See Notes 30-31
- Watercourse- Permanent - See Notes 24-29 and 31
- Watercourse- Intermittent - See Notes 24-29 and 31
- Waterbody - See Notes 24-29 and 31

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Project Location
Municipality of Greenstone

160961408 REVA
Prepared by DH on 2021-08-08

Client/Project
ENBRIDGE GAS INC.
GREENSTONE PIPELINE PROJECT

Tile No.
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Title
Mitigation Photo Mosaic

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Mitigation Notes

1. Construction 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 exposed areas as appropriate. Final landscaping and vegetation should be installed as soon as practical.

2. All required approvals and permits will be obtained prior to construction.

3. A Traffic Management Plan (TMP) should be implemented for all roads affected by construction as per Section 4.3.2, Table 5.1 of the ER.

4. Water taking is to follow the conditions of the Project specific EASR or PTTW. Refer to Section 4.1.4, Table 5.1 of the ER for mitigation measures related to hydrostatic testing and dewatering.

5. The construction contractor should implement a site-specific waste collection and disposal management plan as per section 4.3.8, Table 5.1 of the ER.

6. In locations where blasting is required near residential homes or buildings, a blasting consultant should be retained to assess the need to monitor potential blasting impacts. If a monitoring program is initiated, it should include the inspection of foundations and other structures for integrity prior to blasting activity. The identification of homes and buildings to be monitored, in proximity to the blast, should be determined by the blasting consultant. Follow mitigation measures in Section 4.1.1, Table 5.1 of the ER.

7. 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.

8. The contractor is to comply with O. Reg. 406/19, “On-Site and Excess Soil management”, as amended, for storage, movement, transportation and/or disposal of any soil materials, whether suspected to be contaminated or not.

9. Motorized construction equipment should be equipped with mufflers and silencers as available. 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 Municipality of Greenstone Noise By-law No. 03-28. See Section 4.3.2, Table 5.1 of the ER for additional mitigations to be followed to reduce impacts to nearby residents.

10. 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. Refer to Section 4.3.2, 5.1 of the ER for mitigations on reducing impacts to nearby residents.

11. Access to driveways and roads should be maintained as practical during the construction period. The pipeline, once constructed, will not restrict access.

12. Safety fencing should be installed at the edge of the construction RoW where public safety considerations are required.
13. Follow mitigation measures outlined in 4.3.4. in Table 5.1 of the ER to reduce impacts on community services and infrastructure.

14. To mitigate the extent of the adverse impacts to the businesses along 1st Street East and Main Street dust control measures should be implemented as outlined in Section 4.3.2 and 4.3.4, Table 5.1 of the ER.

15. Construction should be restricted to daylight hours where possible to minimize disturbances to residents and businesses.

16. A private well survey should be conducted to assess domestic groundwater use near the Project and a private well monitoring program is recommended for residents who rely on overburden groundwater supply for domestic use. Refer to Section 4.1.3, Table 5.1 of the ER for well monitoring program requirements and mitigations on Project impacts to groundwater.

17. Follow the mitigation and protective measures for natural areas and vegetation outlined in Section 4.2.2, Table 5.1 of the ER.

18. To reduce impacts to wildlife habitat, wildlife, and Species at Risk, follow the mitigation and protective measures outlined in Section 4.2.3, Table 5.1 of the ER.

19. Retain actual or potential wildlife trees (e.g., cavity trees or snags) where safe to do so.

20. Construction activities with the potential to remove migratory bird habitat, such as vegetation clearing, should be avoided to the extent possible during the breeding season which is generally from the beginning of May to mid-August in this zone of Ontario.

21. Complete removal of potential bat maternity roosting habitat (treed habitat) outside the core active season for bats (i.e., April 1 to September 30).

22. Fencing should be erected around deep excavations such as bore bays to prevent wildlife entrapment. Refer to Section 4.2.3, Table 5.1 of the ER.

23. Avoid construction near turtle nesting areas during the turtle nesting period (June 1 – September 30) if possible. If construction must occur during nesting season, silt fence this area prior to June 1 of the year of construction to avoid potential nesting prior to construction.

24. Vegetative buffers at watercourse and road crossings should be restored where feasible.

25. Following general mitigation measures at watercourse crossings outlined in Section 4.2.1, Table 5.1 of the ER.

26. If required, blasting in watercourses should be conducted in accordance with the DFO Guidelines for the Use of Explosives in Canadian Fisheries Waters (1995). Follow mitigation measures in Section 4.1.1, Table 5.1 if the ER on blasting.

27. In-water works are prohibited between April 1 and June. An additional timing restriction of September 15 to May 31 will be applied to the Barton Bay crossing, due to the presence of Lake Whitefish and Cisco in Kenogamisis Lake. Timing windows should be confirmed with the Ministry of Natural Resources and Forestry prior to construction. See Section 4.2.1, Table 5.1 of the ER for additional measures on in-water works that should be followed.

28. When working near surface water features, follow the general mitigation measures in section 4.2.1, Table 5.1 of the ER.

29. Follow flow diversion/dewatering, fish recuse plan, site restoration and riparian planting measures in section 4.2.1, Table 5.1 of the ER.

30. Where practical avoid construction near amphibian breeding habitat (i.e. wetlands) during the amphibian breeding season (May 1-July 15).

31. Refueling of equipment should be undertaken 50 m from wetlands and watercourses to reduce potential impacts to surface water and groundwater quality if an accidental spill occurs.

32. The use of isolation and a 50-metre buffer zone is the preferred mitigation option to reduce the potential for negative indirect Project impacts on the heritage resources identified in the CHAR (Appendix D) and Figures 1-3.

Stantec

Project Location
Municipality of Greenstone

160961408 REVA
Prepared by DH on 2021-08-06

Client/Project
ENBRIDGE GAS INC.
GREENSTONE PIPELINE PROJECT

Tile No.
4

Title
Mitigation Notes

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