



**Coveny and Kimball-Colinville
Well Drilling Project:
Environmental Report**

FINAL REPORT

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COVENY AND KIMBALL-COLINVILLE WELL DRILLING PROJECT: ENVIRONMENTAL REPORT

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Executive Summary

To ensure the continued safe and reliable delivery of natural gas to existing and future Enbridge Gas Inc. (Enbridge Gas) customers, Enbridge Gas is proposing the Coveny and Kimball-Colinville Well Drilling Project (the Project). The Project will involve drilling a new A-1 observation well (TCV 7) and a new natural gas storage well (TKC 68) in the Coveny and Kimball-Colinville Storage Pools, respectfully – two designated storage areas (DSAs) (as defined in s. 36.1 (1)(a) of the *Ontario Energy Board Act*) located in Lambton County. TCV 7 is being drilled to monitor the gas content and pressure in the underground storage formations and TKC 68 is being drilled to replace deliverability lost through the abandonment of six natural gas storage wells in the Kimball-Colinville DSA. The Project will also include the installation of approximately 120 metres of Nominal Pipe Size (NPS) 10-inch lateral pipeline to connect TKC 68 to the existing Kimball-Colinville gathering pipeline system.

The Project will commence with the construction of temporary gravel drilling pads that will be approximately 8,100 square metres each. Upon completion of drilling activities, permanent gravel pads will be constructed around the wells and 120 m of NPS 10-inch pipeline will be installed at TKC 68. The permanent well pads will be approximately 60 square metres. Permanent access laneways to the wells will also be installed.

Enbridge Gas has retained Stantec Consulting Ltd. (Stantec) to undertake an environmental study of the construction and operation of the Project. The environmental study included a consultation program impact assessment, and a cumulative impact assessment.

A consultation program was conducted for the Project to engage with federal and provincial agencies, conservation authorities, municipal staff, Indigenous communities, landowners, and other interested parties. Enbridge Gas and Stantec have also been in direct contact with agency and municipal staff. Enbridge Gas has committed to on-going consultation with directly affected and interested parties through detailed design and construction phases and will continue to respond to concerns through the life of the Project.

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

The potential cumulative effects of the Project were assessed by considering development that has a high probability of proceeding just prior to or concurrent with construction of the Project. 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.



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



Abbreviations

AA	Archaeological Assessment
ANSI	Area of Natural and Scientific Interest
BGS	Below ground surface
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
COSSARO	Committee on the Status of Species at Risk in Ontario
DFO	Fisheries and Oceans Canada
DSA	Designated Storage Area
EASR	Environmental Activity and Sector Registry
Enbridge Gas	Enbridge Gas Inc.
ER	Environmental Report
ESA	<i>Endangered Species Act</i>
ESC	Erosion and sediment control
IPZ	Intake Protection Zone
LAWSS	Lambton Area Water Supply System
LIO	Land Information Ontario
MECP	Ministry of the Environment, Conservation and Parks
MENDM	Ministry of Energy, Northern Development, and Mines
NDMNRF	Ministry of Northern Development, Mines, Natural Resources and Forestry
MHSTCI	Ministry of Heritage, Sport, Tourism and Culture Industries
NHIC	Natural Heritage Information Centre
NPS	Nominal Pipeline Size
OP	Official Plan



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OEB	Ontario Energy Board
OGS	Ontario Geological Survey
OHA	<i>Ontario Heritage Act</i>
OMAFRA	Ontario Ministry of Agricultural, Food and Rural Affairs
OPCC	Ontario Pipeline Coordinating Committee
O. Reg.	Ontario Regulation
PTTW	Permit to Take Water
PPS	Provincial Policy Statement
PSW	Provincially Significant Wetland
SAR	Species at Risk
SCN	Soybean Cyst Nematode
SCRCA	St. Clair Region Conservation Authority
SGRA	Significant Groundwater Recharge Area
SOCC	Species of Conservation Concern
Stantec	Stantec Consulting Ltd.
The Project	Coveny and Kimball-Colinville Well Drilling Project
WWR	Water Well Record(s)



1.0 INTRODUCTION

1.1 PROJECT DESCRIPTION

To ensure the continued safe and reliable delivery of natural gas to existing and future Enbridge Gas Inc. (Enbridge Gas) customers, Enbridge Gas is proposing the Coveny and Kimball-Colinville Well Drilling Project (the Project). The Project will involve drilling two (2) wells: an A-1 observation well (TCV 7), and a natural gas storage well (TKC 68), respectively. Drilling for TCV 7 and TKC 68 will occur in two designated storage areas (DSAs) (as defined in s. 36.1(1)(a) of the *Ontario Energy Board Act*) located in the Coveny DSA and Kimball-Colinville DSA in Lambton Country.

Project activities at TCV 7 will commence with the construction of a temporary gravel drilling pad that will be approximately 8,100 square meters. Access to the site will be via a new permanent access laneway. Upon completion of drilling activities, portions of the temporary gravel drilling pad will be removed such that a permanent gravel pad of 60 square meters will remain.

Project activities at TKC 68 will commence with the construction of a temporary gravel drilling pad that will be approximately 8100 square meters. Access to the site will be via a new permanent access laneway. Upon completion of drilling activities, approximately 120 metres of Nominal Pipe Size (NPS) NPS 10-inch lateral pipeline will be constructed to connect the new natural gas storage well to the existing Kimball-Colinville gathering system, and portions of the temporary gravel drilling pad will be removed such that a permanent gravel pad of 60 square meters will remain.

Project locations are shown in **Appendix A**.

Enbridge Gas has retained Stantec Consulting Ltd. (Stantec) to undertake an environmental study of the construction and operation of the Project.

1.2 ENVIRONMENTAL STUDY

1.2.1 Objectives

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

The environmental study was completed in accordance with the 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.



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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 this objective, the environmental study was prepared to:

- Implement a consultation program to receive input from interested and potentially affected parties
- 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 and monitoring and contingency plans

1.2.2 Process

The environmental study was divided into two main phases:

Phase I: Consultation and Gathering Background Environmental Information

Phase I began with notifying impacted and potentially interested parties regarding the Project. Concurrent with consultation, environmental and socio-economic features at the two Project locations were mapped and characterized using relevant published literature, maps, and digital data. Geographically based environmental features were incorporated onto a series of digital base maps. Discussions with relevant agencies provided information for compiling the existing conditions inventory and mapping.

Phase II: Environmental Report

Phase II involved determining potential environmental and socio-economic impacts and cumulative effects that may result from the Project and recommending mitigation and protective measures, supplemental studies, monitoring, and contingency plans to reduce or avoid potential impacts. The environmental study concluded with the preparation of this Environmental Report (ER) as well as Environmental Alignment Sheets to identify site-specific mitigation and protective measures to be implemented during construction (see **Appendix D**).

1.2.3 The Environmental Report

The environmental study has relied on a technically sound and consistently applied approach that is replicable and transparent. The ER, which documents the environmental study, will form the basis 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 Consultation Program:** describes the consultation program
- 3.0 Existing Conditions:** describes the environmental and socio-economic existing conditions



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- 4.0 Impact Identification, Assessment, and Mitigation:** predicts potential effects and impacts, recommends supplemental studies, mitigation, and protective measures, and considers net impacts
- 5.0 Cumulative Effects:** provides an analysis of potential cumulative effects associated with the Project
- 6.0 Monitoring and Contingency Plans:** describes monitoring and contingency plans to address potential environmental impacts of the Project
- 7.0 Conclusion:** provides a conclusion on the significance of the potential environmental impacts associated with the Project

The ER also includes references and appendices for documentation.

1.2.4 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 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. 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.

1.2.5 Additional Environmental Regulatory Processes

Enbridge Gas will also be required to obtain additional environmental permits and approvals from provincial agencies, 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
PROVINCIAL PERMITS AND APPROVALS		
Development Permits under Ontario Regulation (O. Reg.) 171/06 (Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses), as	St. Clair Region Conservation Authority (SCRCA)	Required for works in SCRCA Regulated Areas, including shorelines, watercourses, wetlands, and hazardous lands (flooding and erosion hazards, and unstable soils and bedrock). For the Project, a permit will be required for work in the TCV 7 Project location.



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Table 1.1: Summary of Potential Environmental Permit and Approval Requirements

Permit/Approval Name	Administering Agency	Description
per the <i>Conservation Authorities Act</i> (1990)		
Permit to Take Water (PTTW) or Environmental Activity and Sector Registry (EASR) (surface and groundwater) under the <i>Environmental Protection Act</i> (1990) and <i>Ontario Water Resources Act</i> (1990)	Ministry of the Environment, Conservation and Parks (MECP)	Under O. Reg. 64/16 and O. Reg. 63/16, the MECP requires a PTTW for dewatering more than 400,000 L/day, and an EASR for dewatering between 50,000 and 400,000 L/day. This can include dewatering and taking water for hydrostatic testing from a natural water source. There are some exceptions for surface water takings where active or passive surface water diversions occur such that all water taken is returned within another portion of the same surface water feature.
Permitting or registration under the <i>Endangered Species Act</i> (ESA) (2007)	MECP	An ESA permit or registration is required for activities that could impact species and/or their habitat protected under the ESA. Should it be determined that activities will occur that could impact species and/or their habitat 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."
Archaeological clearance under the <i>Ontario Heritage Act</i> (OHA) (1990)	Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI)	A Stage 1 and Stage 2 archaeological assessment (AA) is required to identify areas of archaeological potential prior to any ground disturbances and/or site alterations. Depending on the results of the Stage 1 and Stage 2 AAs, Stage 3 and 4 AAs may be required. The completed archaeological assessment reports are forwarded to the MHSTCI for review and comment.
Review of Built Heritage and Cultural Landscapes under the OHA (1990)	MHSTCI	A Heritage Overview Study will be completed to determine the presence of built heritage and cultural landscapes. If identified, a Cultural Heritage Assessment Report is required to determine the effects of the project on heritage resources and recommend mitigation measures as necessary.
MUNICIPAL PERMITS AND APPROVALS		
Noise By-Law No. 44 of 2014	St. Clair Township	Project activities should adhere to the local noise by-law.
Woodlands Conservation By-Law No. 4 of 2012	Lambton County	Project activities should meet the intent of the local woodlands conservation (tree-cutting) by law.



2.0 CONSULTATION AND ENGAGEMENT PROGRAM

2.1 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
- Provide a forum for the identification of issues
- Identify how input will be used in the planning stages of the Project
- Summarize issues for resolution, and resolve as many issues as feasible
- Revise the program to meet the needs of those being consulted, as feasible
- Develop a framework for ongoing communication and engagement during the construction and operation phases of the Project

2.2 IDENTIFYING INTERESTED AND POTENTIALLY AFFECTED PARTIES

As part of the consultation and engagement process, Indigenous and stakeholder Contact Lists (including Agency, Municipal, and Interest Groups), were developed.

2.2.1 Identifying Indigenous Communities

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



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Indigenous engagement commenced with the submission of a Project description to the former Ministry of Energy, Northern Development and Mines (MENDM).¹ 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 in a Letter of Delegation dated June 01, 2021. See **Appendix B1**.

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, the following Indigenous communities should be consulted:

- Aamjiwnaang First Nation
- Bkejwanong (Walpole Island) First Nation
- Chippewas of the Thames First Nation
- Chippewas of Kettle and Stony Point First Nation
- Oneida Nation of the Thames

2.2.2 Identifying Interested and Potentially Affected Parties

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

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

- Federal and provincial agencies and authorities
- Municipal personnel
- Special interest groups

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. The Project Indigenous and stakeholder Contacts Lists are provided in **Appendix B2**.

¹ On June 18, 2021, the Ontario government implemented changes to several ministries. The Ministry of Energy will continue to handle matters pertaining to delegation of Duty to Consult, while the rest of the MENDM has been combined with the former Ministry of Natural Resources and Forestry to become the Ministry of Northern Development, Mines, Natural Resources and Forestry.



2.3 COMMUNICATION: LETTERS AND EMAILS

Letters and emails were sent to those identified on the stakeholder Contact List on September 24, 2021, to inform them of the commencement of the Project and outline the environmental study process. The letters and emails sent to stakeholders 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 and emails were sent to those identified on the Indigenous on September 28, 2021, to inform them of the commencement of the Project and outline the environmental study process. The letters and emails sent to Indigenous communities requested information on adverse impacts that the Project may have on constitutionally protected Indigenous or treaty rights and measures for mitigating those adverse impacts. Appended to the letters and emails was a map of the two Project locations.

Generic copies of the letters noted above are provided in **Appendix B3**.

2.4 CONSULTATION EVENTS

Meetings about the Project occurred between Enbridge Gas and Indigenous communities.

As the Project progresses in the planning, design, and construction phase, meetings with directly impacted landowners will occur directly with Enbridge Gas. Landownership differs across the Project locations. Enbridge Gas leases the land on which Project activities for TKC 68 will occur and owns and operates the land on which Project activities for TCV 7 will occur.

Enbridge Gas will consult with the various landowners and third-party users at each Project location.

2.5 INPUT RECEIVED

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

A comment-response summary table and a copy of all written comments and responses is provided in **Appendix B4**.

2.5.1 Indigenous Input

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



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2.5.2 Agency Input

Six (6) comments were received from agencies at the time of writing this ER. Comments were as follows:

- The former MENDM provided a Letter of Delegation outlining the duty to consult and outlined communities who's Aboriginal or treaty rights may be impacted by the Project.
- MECP Species at Risk Branch provided general information on the Ontario ESA, requirements to determine if an ESA permit or authorization is needed for a site, and what to do if there is a violation of the ESA.
- The Minister of Heritage, Sport, Tourism and Culture Industries (MHSTCI) requested that additional MHSTCI reviewers be added to the Project Contact List.
- The Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNRF) provided information to guide identification and assessment of natural features and resources as required by applicable policies and legislation.
- Infrastructure Ontario provided an email noting that, based off their initial scan of the Project, no properties owned by the Minister of Government and Consumer Services are in the Project's Study Areas.
- The MECP Source Protection Programs Branch provided information on how proponents can determine if a Project may pose a threat to sources of drinking water and noted that natural gas pipelines are not identified as a threat to drinking water sources under the Clean Water Act, 2006. However, certain activities related to the construction of pipelines may pose a risk to sources of drinking water.

2.5.3 Municipal and Interest Group Input

No comments were received from municipal staff or interest groups at the time of writing this ER.

2.6 REFINEMENTS BASED ON INPUT

Consultation with Indigenous communities and stakeholders is ongoing. It is anticipated that, as the Project progress, additional comments/input will be received. As input is received it will be compiled, reviewed, and incorporated into project planning. Responses will be provided, as applicable, to questions and comments on the Project. Enbridge Gas has committed to on-going consultation with directly affected and interested parties through detailed design and construction and will continue to respond to concerns through the life of the Project.



3.0 EXISTING CONDITIONS

3.1 STUDY AREAS

A Study Area is the area in which direct interactions with the environment could occur. For the purposes of the environmental study, the Study Area boundary was defined by capturing the extent of the proposed access routes, location of TCV 7 and TKC 68, as well as the proposed connecting pipeline. The east and west extents of the Study Area boundary, at the widest points, was defined by applying a 500 m buffer around proposed wells. A map of the Study Area boundaries is provided in **Appendix A**.

3.2 DATA SOURCES

The existing conditions maps (**Appendix C**) have been generated from base mapping provided from Enbridge Gas and data obtained from Land Information Ontario (LIO) (NDMNRF 2020a). Scales have been adjusted from the original source to better represent the features mapped. Stantec has digitally reproduced features added to the base maps. Additional mapping sources are identified on the respective map, and in the references.

For the socio-economic elements of the assessment, the most recent economy and employment statistics are provided in the 2016 Census of Population (Statistics Canada 2017a and 2017b). The selected census divisions included Ontario, Lambton County, and the Township of St. Clair, which is located in Lambton County. These census divisions were selected to consider the County as a whole, which considers conditions in St. Clair Township, as well as the City of Sarnia. The effects of the Project are likely to be experienced differently in the rural environment where localized Project impacts are likely to be experienced directly by landowners, and the nearby urban location (Sarnia) where the wider economic and infrastructure and impacts may be experienced.

3.3 PHYSICAL FEATURES

3.3.1 Bedrock Geology and Drift Thickness

Bedrock geology is uniform across the two Project locations and is comprised predominantly of thin-bedded, fissile grey to black bituminous shale underlain by Upper Devonian black shale of the Kettle Point Formation (Hewitt and Liberty 1972; Ontario Geological Survey [OGS] 1991). A map of bedrock geology is provided in **Figure 1, Appendix C**.

The Kettle Point Formation, which outcrops principally in Lambton and Kent County, has a thickness that varies from 12 to 88 m (Caley 1946 p.49). To determine the drift thickness in the Project locations, general depth from the soil surface to the bedrock was reviewed. In the TKC 68 Project location, drift thickness is equal to or greater than 57 m, drift thickness in the TCV 7 Project location is equal to or greater than 40 m (see **Figure 2, Appendix C**). A review of available Water Well Records (WWR) in 1 km of the Project locations confirmed that no MECP WWRs (2021) occur in 500 m of the TKC 68 Project



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location, the closest WWR to the site recorded bedrock material (hardpan) 31 m below ground surface (BGS). At the TCV 7 Project location, 1 WWR was available which recorded the depth to bedrock at 104 m BGS.

3.3.2 Physiography and Surficial Geology

The topography of both Project locations (see **Figure 3, Appendix C**) is in the Beveled Till Plains physiographic region of southern Ontario, a region characterized as attributing relatively flat, reworked plains, that were deposited and then over-ridden by a subsequent glacial even (Chapman and Putnam 1984).

As shown in surficial geology mapping (see **Figure 4, Appendix C**), the TKC 68 Project location is composed of fine-textured deposits underlain by massive well laminated fine-textured glaciolacustrine deposits and glaciolacustrine-derived silty to clayey till (OGS 2010). The surficial geology of the TCV 7 Project location is massive well laminated fine-textured glaciolacustrine deposits (OGS 2010).

3.3.3 Groundwater

Mapping provided by the Thames-Sydenham and Region Source Protection Area (2015), as well as the County of Lambton (2020), identifies vulnerable areas, potential threats to drinking water, and source water protection areas and policies in and adjacent to both Study Areas. As shown on mapping from these sources, no Intake Protection Zones (IPZ's) or Wellhead Protection Areas are in the TCV 7 or TKC 68 Project location.

Regional groundwater flow is generally interpreted to be to the west towards St. Clair River and south towards Lake Erie, with local groundwater flow conditions impacted by surface water features. As shown on Map 'A' of the County's Official Plan (OP) (County of Lambton 2020), municipal drinking water intakes predominately use surface water from Lake Huron, Lake Erie, and the connecting channels of St. Clair River and Lake St. Clair. IPZ's are, thus, concentrated along these waterbodies and adjacent lands and are well outside the Project locations. The nearest IPZ is located 8 km southwest of the TCV 7 Project location.

Source water mapping indicates that no Significant Groundwater Recharge Areas (SGRAs) are located in TCV 7 Project location. One SGRA is located in the TKC 68 Project location (Thames-Sydenham and Region Source Protection Area 2015; County of Lambton 2020).

As noted in section 3.3.1 of this Report, MECP WWRs (2021a) indicate there are no WWRs within 500 m of TKC 68. One WWR was identified 250 m east from the access route to TCV 7 – this well is used as a domestic water supply well.

A map of groundwater conditions, including aquifer vulnerability, and locations of nearby domestic and municipal wells is provided in **Figure 5, Appendix C**.



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3.3.4 Aggregates and Petroleum Resources

Map 'B' of the County of Lambton OP (2020) identifies mineral and aggregate resources throughout the municipality. Potential Aggregate Deposits, shown on Map 'B' of the OP, are concentrated along the shores of Lake Huron and the nearest Potential Aggregate Deposit is located 10 km northwest of the TKC 68 Project location. There are seven (7) designated Aggregates Sites located in Wyoming, well outside both Project locations.

The Project locations are situated in DSAs (as defined in s. 36.1(1)(a) of the *Ontario Energy Board Act*). These are lands that contain geological formations used for subsurface storage of natural gas. As the Project is located in two DSAs, there are active and abandoned wells, also referred to as inactive wells, in both Study Areas. The location of these designated Natural Gas Storage Pools is shown on the County of Lambton OP (2020) Map 'C'.

A map of aggregate and petroleum resources is provided in **Figure 6, Appendix C**.

3.3.5 Soil and Soil Capability

Caistor Clay (LIO, NDMNRF 2020a) and Brookston Clay (LIO, NDMNRF 2020a) are the two soil types identified in the TKC 68 Project location. See **Figure 7, Appendix C**. Caistor Clay soil is an imperfectly drained soil that belongs to the Grey-Brown Podzolic Great Soil Group. Caistor Clay occurs on slightly undulating topography and represents the transition area between the Brookston Clay and Bottom Land. The soil is moderately acidic and is inherently low in organic content. Caistor Clay soils are best utilized for livestock farming, legume crops, and rotations that include some row crops.

Brookston Clay (LIO, NDMNRF 2020a) dominates the soil type in the TCV 7 Project location. Brookston series soils are regarded as a poorly drained heavy textured soil developed on relatively stone-free glacial till and located on level to gently undulating topography (Evans and Cameron 1982). This family of soils can be defined as Orthic Humic Gleysol, fine clayey, illitic, alkaline, strongly calcareous, and mild subaquic.

Soil capability for agriculture is mapped by Agriculture and Agri-Food Canada (2005). Lands classified as Class 1 are the most agriculturally productive, while those classified as Class 7 have the lowest capability for agriculture. Class 1 to 5 agricultural lands are generally arable, while Classes 1 through 3 are defined by the Ontario Ministry of Agriculture, Food and Rural Affairs to be prime agricultural soils for common field crop production.

Most rural land in Lambton is comprised of prime agricultural lands (Classes 1-3), including specialty crop areas that are suitable to produce fruits and vegetables. All of rural Lambton, according to the County's OP (2020), is a prime agricultural area.

Soils in the TKC 68 Project location have been classified at Class 2 and Class 3. Class 2 soils have moderate limitations that restrict the range of crops or require moderate conservation practices. Class 3 soils have moderately severe limitations that restrict the range of crops or require special conservation



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practices. Soils in the TCV 7 Project location have been classified as Class 2. The agricultural features in the Study Areas are illustrated on **Figure 8, Appendix C**.

3.3.6 Agricultural Tile Drains

Agricultural fields in Lambton County commonly have tile drainage to increase the agricultural productivity:

- Approximately 4.4 ha of the TKC 68 Study Area is mapped as containing agricultural tile drainage - systematic tile drainage covers the full extent (OMAFRA 2019).
- No portion of the TCV 7 Study Area is mapped as containing agricultural tile drainage (OMAFRA 2019).

3.3.7 Soybean Cyst Nematode (SCN)

In southwestern Ontario, soybean cyst nematode (SCN) is present in the topsoil of many agricultural fields in populations large enough to impact soybean yields. SCN can be spread in many ways such as wind, animals, or in topsoil stuck to machinery as the machinery passes from an impacted field to a non-impacted field. SCN is common in agricultural lands in Lambton County. Once a field has been infested, there is significant potential for soybean crop yield reductions (Olechowski 1990). SCN concerns are limited to agricultural fields that will be traversed by construction equipment. SCN is not a concern in the road allowance, or areas where the topsoil has been completely removed.

3.3.8 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 are limited but may include seismic activity and flooding. SCRCA regulates areas prone to flooding and erosion hazards as well as shorelines, watercourses, and wetlands. According to online mapping from the SCRCA, the TCV 7 Project location is located in their regulated area (SCRCA n.d.).

Both Study Areas lie in the Southern Great Lakes Seismic Zone (Natural Resources Canada 2019). This zone has a low to moderate level of seismicity when compared to the more active seismic zones to the east, such as the Western Quebec Seismic Zone which captures the area along the Ottawa River and Quebec. According to data from Natural Resources Canada (2019), over the last 30 years, on average, 2 to 3 magnitude 2.5 or larger earthquakes have been recorded in the Southern Great Lakes region. By comparison, over the same time period, the smaller region of Western Quebec experienced 15 magnitude 2.5 or greater earthquakes per year.

Three moderately sized (magnitude 5) events have occurred in the 250 years of European settlement of this region, all of them in the United States - 1929, Attica, New York, 1986, near Cleveland, Ohio, and 1998, near the Pennsylvania/Ohio border. All three earthquakes were widely felt but caused no damage in Ontario.



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3.4 BIOPHYSICAL FEATURES

3.4.1 Aquatic Features

3.4.1.1 Watercourses

GeoHub/Land Information Ontario (NDMNRF 2021a) identifies 2 watercourses in the TCV 7 Study Area (**Appendix C, Figure 9**). Both watercourses are in the Sydenham River watershed and are regulated by the SCRCA.

The Government N°. 3 Drain municipal drain (DFO Class F) (OMAFRA 2020) is located along Bentpath Line north of TCV 7 and is identified as containing aquatic species at risk (SAR) (DFO 2021). The Burr Drain municipal drain (DFO Class E) (OMAFRA 2020) bisects the agricultural field northwest of TCV 7 and is also identified as containing aquatic SAR (DFO 2021).

A watercourse, municipal drain, is located 15 m north of the proposed permanent laneway to TKC 68. No other aquatic features are in or adjacent to the TKC 68 Study Area (NDMNRF 2021a).

3.4.1.2 Fish and Fish Habitat

According to OMAFRA (2020), Government No. 3 Drain is a Class F drain. Class F drains are considered intermittent watercourses and are considered to have restricted in-water activity window to protect spring spawning species (generally March 15 – July 15). According to OMAFRA (2020), Burr Drain Municipal Drain is a Class E drain. Class E drains are considered permanent watercourses with sensitive fish species present, and they typically have a restricted in-water activity window to protect spring spawning species (generally March 15 – July 15).

Aquatic SAR data (DFO 2021) for watercourses in the Study Areas are shown below in Table 3.1.

Table 3.1: Aquatic SAR Documented in Watercourses from the TCV 7 Study Area

Species Common Name	Species Scientific Name	ESA Status	SARA Status (Schedule 1)
Blackstripe Topminnow	<i>Fundulus notatus</i>	SC	SC
Grass Pickerel	<i>Esox americanus vermiculatus</i>	SC	SC
Eastern Sand Darter	<i>Ammocrypta pellucida</i>	END	THR
Lilliput	<i>Toxolasma parvum</i>	THR	END
Northern Sunfish	<i>Lepomis peltastes</i>	SC	Not at Risk
Pugnose Minow	<i>Opsopoeodus emiliaey</i>	THR	THR
Spotted Sucker	<i>Minytrema melanops</i>	SC	SC

ESA: Endangered Species Act, SARA: Species at Risk Act
SC: Special Concern, THR: Threatened, END: Endangered



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Under the ESA and SARA, species listed as threatened or endangered are afforded individual and habitat protection. Special concern species are not afforded these protections.

3.4.2 Designated Natural Areas and Vegetation

Wetlands

The Ontario Wetland Evaluation System (OWES) is an established process used to evaluate wetlands in Ontario and determine their significance (e.g., Provincially Significant Wetlands (PSW). Evaluated wetlands may be one contiguous unit or a series of smaller wetlands determined by a set of criteria to be functioning together as a whole. Evaluated wetlands that do not qualify for PSW designation may still be designated locally significant and may be protected through local planning and policy measures. There may also be wetlands that have not been evaluated or even identified in an area. The Lambton County OP identifies PSW's as Group "A" Features (Lambton County 2020).

A review of the LIO (NDMNRF 2020a) and NHIC database (NDMNRF 2020b) indicates that the Project is not located within the boundary of PSW. There are also no unevaluated wetlands within 500 m of the TCV 7 and TKC 68 Project locations. One unevaluated wetland is located 1.5 km south of TCV 7 and is located south adjacent to Ryan's Creek.

Woodlands

A woodland is defined as a treed area, woodlot, or forested area. The Natural Heritage Reference Manual notes that the local planning authority has a responsibility for designating significant woodlands, using criteria that include size, ecological function, uncommon characteristics, and economic and social functional values (NDMNRF 2010). LIO identifies woodlands that overlap with the unevaluated wetland throughout the Study Area. A desktop review using available aerial imagery was completed to confirm their location and extent across both Study Areas. The criteria for designating significant woodlands at a provincial level includes: woodland size; ecological function (shape, proximity to other woodlands or natural features, linkages); species diversity; uncommon characteristics; and, economic and social values (NDMNRF 2010).

It is the local planning authority's responsibility to designate significant woodlands. The Study Areas are located St. Clair Township, in Lambton County. The OPs of the lower- and upper-tier municipality were reviewed for the criteria and identification of significant woodlands. The Township of St. Clair's OP (2015) defines significant woodlands as "...those forested areas which are designated Environmental Protection in a Primary corridor or Significant Natural Area, or any contiguous forested area that is 4 hectares, or greater in size." Significant woodlands are not identified on the Township's associated OP mapping.



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Lambton County's OP (2020) does not identify Significant Woodlands as part of their Natural Heritage System (Map 2) but does detail criteria to be used in the identification of significant woodlands, including a minimum of 2 ha in size, has interior habitat (i.e., greater than 100 m from all edges), and is the largest in the area. Smaller woodlots (0.5 – 1.9 ha) may be considered significant based on criteria guided by the province (i.e., proximity to other features, linkages, unique features, high socio-economic value, etc.).

There is one wooded area located adjacent to the TCV 7 Study Area, east of the access route. The wooded area meets the size criteria for significance under criteria of both the Township (>4 ha) and County (>2 ha).

A wooded area occurs north of the permanent laneway to TKC 68 and is also located outside the TKC 68 Study Area.

Areas of Natural and Scientific Interest (ANSI)

Life science ANSIs are significant representative segments of Ontario's biodiversity and natural landscapes, including specific types of forests, valleys, prairies, savannahs, alvars and wetlands, their native plants and animals, and their supporting environments. They contain relatively undisturbed vegetation and landforms, and their associated species and communities. Provincially significant life science ANSIs include the most significant and best examples of the natural heritage features in the province, and many will correspond to other significant features and areas such as wetlands, valleylands, and woodlands (NDMNRF 2010).

A review of NDMNRF LIO mapping (NDMNRF 2020a) and the NHIC (NDMNRF 2020b) did not identify ANSIs in either Study Area. The nearest ANSI is located 3 km northwest of the TCV 7 Project location the Duthill Woodlot (see **Figure 9, Appendix C**).

3.4.3 Wildlife Habitat, Wildlife, and Species at Risk

3.4.3.1 Wildlife Habitat and Wildlife

Wildlife habitat is defined as an area where plants, animals, and other organisms live, including areas where species concentrate at a vulnerable point in their life cycle, and areas that are important to migratory and non-migratory species (NDMNRF 2000). Significant wildlife habitats are grouped into four categories:

1. Seasonal concentration areas
2. Animal movement corridors
3. Rare vegetation communities or specialized habitats
4. Habitats of species of conservation concern



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Seasonal Concentration Areas

Seasonal concentration areas are those sites where large numbers of a species gather together at one time of the year, or where several species congregate. No seasonal concentration areas have been identified in the TCV 7 and TKC 68 Study Areas through NDMNRF mapping and the NHIC database (NDMNRF 2020b).

Animal Movement Corridors

Animal movement corridors are elongated, naturally vegetated parts of the landscape used by animals to move from one habitat to another (NDMNRF 2000). Rivers, creeks, and drains may be used as movement corridors; these features are present in all three Study Areas. Hedgerows may also serve as small linkages (NDMNRF 2000). Map '2' of the County of Lambton Official Plan (2020) identifies linkage features throughout the municipality – shown as Group "C" Features. The TCV 7 Study Area is immediately adjacent to an area designated as a "Primary Corridor (Group "C" Feature)" that is associated with Indian Creek. No other Group "C" Features are in the Study Areas of TCV 7 or TKC 68.

Rare Vegetation Communities or Specialized Habitats

Rare or specialized habitats are two separate components. Rare habitats are those with vegetation communities that are considered rare in the province. SRANKS are rarity rankings applied to species at the "state", or in Canada at the provincial level, and are part of a system developed under the auspices of the Nature Conservancy. Generally, community types with SRANKS of S1 to S3 (i.e., extremely rare to rare – uncommon in Ontario), as defined by the NHIC, could qualify. It is assumed that these habitats are at risk and that they are also likely to support additional wildlife species that are considered significant.

Specialized habitats are microhabitats that are critical to some wildlife species. The *Significant Wildlife Habitat Technical Guide* (NDMNRF 2000) identifies eight potential specialized habitats associated with the eco-region (7E) of Ontario in which the Project is located:

- Waterfowl Nesting Area
- Bald Eagle and Osprey Nesting, Foraging and Perching Habitat
- Woodland Raptor Nesting Habitat
- Turtle Nesting Areas
- Seeps and Springs
- Amphibian Breeding Habitat (Woodland)
- Amphibian Breeding Habitat (Wetlands)
- Woodland Area-Sensitive Bird Breeding Habitat

Based on a preliminary review of background information and available aerial imagery, there is potential for Amphibian Breeding Habitat (Woodland) to occur in the wooded area adjacent to the TCV 7 Study Area east of the access route.



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Habitat for Species of Conservation Concern

There are four types of species of conservation concern (SOCC): those which are rare, those with significantly declining populations, 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.

Rare species are considered at five levels: globally rare, federally rare (with designations by the *SARA*), provincially rare (with designations by Committee on the Status of Species at Risk in Ontario (COSSARO)), regionally rare (at the Site Region level), and locally rare (in the municipality or Site District). This is also the order of priority that should be assigned to the importance of maintaining species. Some species have been identified as being susceptible to certain practices, and their presence may result in an area being designated significant wildlife habitat. Examples include species vulnerable to habitat loss and species such as woodland raptors that may be vulnerable to forest management or human disturbance. The final group of species of conservation concern includes species that have a high proportion of their global population in Ontario. Although they may be common in Ontario, they are found in low numbers in other jurisdictions.

The NHIC database (NDMNRF 2020b) was searched to obtain historic records of SOCC from the vicinity of the TCV 7 and TKC 68 Study Area, those records are summarized in Table 3.2 below. No NHIC data was available in the TKC 68 Project location.

Table 3.2: Terrestrial Species of Conservation Concern Potentially Present in the TCV 7 Study Area

Common Name	Scientific Name	S-RANK	Provincial Status (COSSARO)	National Status (SARA)	Source
Insects					
Blue-tipped Dancer	<i>Argia tibialis</i>	S3	-	-	iNaturalist
Plants					
Northern Fogfruit	<i>Phyla lanceolata</i>	S2?	-	-	iNaturalist, NHIC
Pawpaw	<i>Asimina triloba</i>	S3	-	-	iNaturalist, NHIC
Prairie Milkweed	<i>Asclepias sullivantii</i>	S3	-	-	iNaturalist, NHIC
Virginia Water-horehound	<i>Lycopus virginicus</i>	S3	-	-	iNaturalist, NHIC

S2: Very rare in Ontario, 5 and 20 occurrences in the province, susceptible to extirpation

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

NHIC – Natural Heritage Information Centre

3.4.3.2 Species at Risk

SAR are identified as endangered or threatened under provincial (ESA) legislation. The NHIC database (NDMNRF 2021b.) was searched to obtain historic records of species at risk from the vicinity of the TCV 7 Study Area. The following wildlife atlases and information sources were also consulted:



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- iNaturalist Canada (iNaturalist 2021)
- Species at Risk in Ontario List (SARO) (MECP 2021a)

Based on a review of background information, 8 SAR are known to occur in the vicinity of the TCV 7 Study Area, including 3 species of birds, 4 species of mammals, and 1 plant species (Table 3.3).

Exact locations of species documented in wildlife atlases are not available from these atlases and, instead, are recorded within 1 x 1 km or 10 x 10 km squares. Species documented from iNaturalist do not provide exact observation location data. The potential for species to be present will be limited by habitat suitability and availability. Therefore, the identified species recorded from these databases may not be present.

Table 3.3: Terrestrial Species at Risk Potentially Present in the TCV 7 Study Area

Common Name	Scientific Name	SRANK	Provincial Status (COSSARO)	National Status (SARA)	Source
Birds					
Bobolink	<i>Dolichonyx oryzivorus</i>	S4B	THR	THR	NHIC
Barn Owl	<i>Tyto alba</i>	S1	END	END	NHIC
Eastern Meadowlark	<i>Sturnella magna</i>	S4B, S3N	THR	THR	NHIC
Mammals					
Eastern Small-footed Myotis	<i>Myotis leibii</i>	S2S3	END	No Schedule, No Status	Dobbyn, SARO
Little Brown Myotis	<i>Myotis lucifugus</i>	S3	END	END	Dobbyn, SARO
Northern Myotis	<i>Myotis septentrionalis</i>	S3	END	END	Dobbyn, SARO
Tricolored Bat	<i>Perimyotis subflavus</i>	S3?	END	END	Dobbyn, SARO
Plants					
Kentucky Coffee-tree	<i>Gymnocladus dioica</i>	S2	THR	THR	NHIC

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

END – Endangered – a species that is at risk of becoming extirpated or extinct

S1: Extremely rare in Ontario, 5 or fewer occurrences in the province, vulnerable to extirpation

S2: Very rare in Ontario, 5 and 20 occurrences in the province, susceptible to extirpation

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

S4: Apparently Secure—Uncommon but not rare

S#B- Breeding status rank

S#N- Non-Breeding status rank

NHIC – Natural Heritage Information Centre

SARO – Species at Risk in Ontario List



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The habitat in the TCV 7 Study Area may potentially support the following SAR:

1. Bobolink: Bobolink lives in tallgrass prairie and other open meadows including hayfields (MECP 2021a). These habitats are relatively common in Southern Ontario and are potentially present in the Study Area.
2. Barn Owl: In Canada, Barn Owl, is found in extreme southern Ontario and British Columbia (MECP 2021b).
3. Eastern Meadowlark: Eastern Meadowlarks breed primarily in moderately tall grasslands, such as pastures and hayfields, but are also found in alfalfa fields, weedy borders of croplands, roadsides, orchards, airports, shrubby overgrown fields, or other open areas (MECP 2021b). These habitats are relatively common in Southern Ontario and are potentially present in the Study Area.
4. Little Brown Myotis, Northern Myotis, Eastern Small-footed Myotis: These *Myotis* SAR species have been documented roosting in buildings, under bridges, in tree cavities, foliage, under tree bark and in rock crevices (Environment Canada 2015). Maternity roosting habitat for these *Myotis* SAR may occur in the mid-aged and mature woodlots, where tree stands have a diameter at breast height of >10 cm. Due to the presence of woodlands adjacent to the Study Area, there is a potential for *Myotis* SAR to be encountered.
5. Tri-colored Bat: Tri-colored bats will use similar features as the *Myotis* SAR, however, they have a stronger preference for oak (*Quercus* spp.) and maple (*Acer* spp.) trees with dead or dying leaf clusters in the canopy. Due to the presence of woodlands adjacent to the Study Area, there is a potential for Tri-colored bats to be encountered.
6. Kentucky Coffee-tree: In Ontario, Kentucky coffee-tree is found in a variety of habitats, but grows best on moist, rich soil. It is often found in floodplains but can tolerate shallow rocky or sandy soils. (MECP 2021b).

At the time of writing this ER, no NHIC Report capturing the TKC 68 Study Area was available.

3.5 SOCIO-ECONOMIC ENVIRONMENT

3.5.1 Residents

The population and gender breakdown of the Project area in 2016 is presented in Table 3-4 below.

Table 3.4: Population and Gender, 2016

Location	Total Population	Land Area (km ²)	Population Density per km ²	Percent Change from 2011
Ontario	13,448,494	908,699	14.8	4.6
Lambton (County)	126,638	3,002	42.2	0.3
St. Clair (Township)	14,086	6,196	22.8	-3.0

Source: Statistics Canada 2017a, 2017b, 2017c



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Lambton County has a small population relative to the province of Ontario. The population St. Clair Township accounts for 11.1% of the population of Lambton County. Over half (56.5%) the population of Lambton County resides in the City of Sarnia, which was 71,594 people in 2016 (Statistics Canada 2017d). The Project locations are not densely populated and reflect a rural environment.

There was a decrease in population in St. Clair Township between 2011 and 2016, in contrast to a slight increase in Lambton County overall. The population change in St. Clair Township and Lambton County overall was all less than that of the wider province of Ontario.

Information regarding the demographics of the population is presented in Table 3-5.

Table 3.5: Density, Age and Indigenous Peoples, 2016

Location	Male ¹	Female ¹	Median Age	Population Identifying as Aboriginal ^{2,3}
Ontario	6,559,390	6,889,105	41.3	374,395
Lambton (County)	62,000	64,640	46.1	6,890
St. Clair (Township)	7,030	7,055	45.4	465

Notes:

1. Numbers are rounded by Statistics Canada and are reported herein exactly as they are reported by Statistics Canada. Totals may not necessarily add up as a result of rounding.
2. Estimates associated with this variable are more affected than most by the incomplete enumeration of certain Indian reserves and Indian settlements in the 2016 Census of Population.
3. Aboriginal identity¹ includes persons who are First Nations (North American Indian), Métis or Inuk (Inuit) and/or those who are Registered or Treaty Indians (that is, registered under the Indian Act of Canada) and/or those who have membership in a First Nation or Indian band. Aboriginal peoples of Canada are defined in the Constitution Act, 1982, section 35 (2) as including the Indian, Inuit and Métis peoples of Canada.
4. Source: Statistics Canada 2017a, 2017b, 2017c

There were more individuals identifying as female than male in St. Clair Township and Lambton County overall, which is consistent with the province of Ontario. The median age in St. Clair Township is lower than Lambton County overall. The median age in the area is higher than in the wider province of Ontario.

As shown in Table 3-4, approximately 3.1% of the population of St. Clair identifies as Indigenous and, on a broader scale, approximately 5.4% of people in Lambton County identify as Indigenous.

3.5.2 Employment and Business

The most recent economy and employment statistics are provided in the 2016 Census of Population (Statistics Canada 2017a.b.c). Table 3-6 summarizes the unemployment and employment rate, participation rate, and the median income of persons over the age of 15 captured at the time of census in Ontario, Lambton County, and the Township of St. Clair (Statistics Canada 2017a.b.c.).



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Table 3.6: Labour Characteristics for Persons > 15 years, 2016

Location	Total Population 15 years and Over	Labour Force	Employed	Participation Rate (%)	Employment Rate (%)	Unemployment Rate (%)
Ontario	11,038,440	7,141,675	6,612,150	64.7	59.9	7.4
Lambton (County)	105,015	61,465	56,485	58.5	53.8	8.1
St. Clair (Township)	11,715	7,175	6,530	61.2	55.7	9.0

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

As shown in Table 4-3, in 2016, St. Clair Township and Lambton County overall had lower participation and employment rates, and higher unemployment rates, when compared to the rates for the wider province of Ontario.

Median income for households and individuals is presented in Table 3-7.

Table 3.7: Median Income, 2015

Location	Median Total Income of Households (\$)	Median Total Income of Individuals (\$)
Ontario	\$74,287	\$33,539
Lambton (County)	\$70,022	\$34,668
St. Clair (Township)	\$86,112	\$40,731

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

Median income of households in Lambton County overall was less than the provincial median by \$4,265. Median income of individuals in Lambton County was more than the provincial median by \$1,129. Median income of households and median income of individuals were higher in St. Clair Township than in Lambton County as a whole.

The top three occupation classifications in Lambton County included: sales and service occupations (23.9%), trades, transport and equipment operators and related occupations included (18.3%) and business, finance, and administration occupations (11.9%). These are the same top three occupation classifications in Ontario overall (Statistics Canada 2017).

A community profile report prepared by the Sarnia Lambton Workforce Development Board (2015) indicated that between 2006 and 2011, several major manufacturing companies (including Dow Chemical, Woodbridge Foam, UBE and others) shut down. This, along with slow recovery from the 2008 recession and associated impacts to the oil and gas sector, may have contributed to the higher rates of unemployment in St. Clair Township, and Lambton County overall, relative to the province, particularly when considering the percentage of workers in Lambton County employed in manufacturing and trades occupations.



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At the time of the Census, the labour force in the St. Clair Township included: manufacturing (15%), health care and social assistance (13.3%), and agricultural (5.6%) (Statistics Canada 2017c).

According to the Demographic and Industrial Profile Report published by Mellor Murray Consulting (2016), St. Clair Township is home to an impressive manufacturing sector. When compared to the provincial average, the community has 70 per cent more firms in the heavy and civil engineering sector than the rest of Ontario as a whole. As recorded in the Report by Mellor Murray Consulting (2016), there are eight firms in the St. Clair Township utilities sector, seven of which are in electric power generation, transmission, and distribution.

Being the leading sector in St. Clair Township, heavy and civil engineering/manufacturing is critical to the health of the economy. As echoed in the St. Clair Township Official Plan (2005), large scale or heavy industries (which includes petrochemical refining and chemical refining) are the predominant form of industrial development.

3.5.3 Community Services & Infrastructure

Permanent and Temporary Accommodations

In the Township of St. Clair there are 5,785 occupied private dwellings, the majority are single-detached houses (5,205), the average household size is 2.4 persons. The majority of occupants were owners and not renters (83.8%) (Statistics Canada 2017c).

In Lambton County overall, there are 54,480 occupied private dwellings, the majority are single-detached houses (41,285), the average household size is 2.3 persons. The majority of occupants were owners and not renters (74.5%) (Statistics Canada 2017a).

The Township of St. Clair is in Provincial Tourism Region 1 (Southwest Ontario) (MHSTCI 2017). In 2019, the hotel occupancy rate (temporary accommodations) in the Region 1 was 62.0%, an increase from 50.6% in 2008 (MHSTCI 2020). In 2019 there was a total of 395 temporary accommodations establishments in the Provincial Tourism Region 1. The majority of the establishments were hotels (including motor hotels and motels) which numbered 192 (49%). There were also 84 RV parks (21%), 54 camps (including hunting and fishing and recreational vacation camps) (14%), and 29 bed and breakfasts (7%). The remaining accommodation types included housekeeping cottages/cabins, resorts, and all other types (MHSTCI 2020).

Temporary accommodations in and adjacent to the Study Areas are limited to small bed-and-breakfasts. There are campgrounds to the west, along the St. Clair River, and hotels in Sarnia.

The COVID-19 pandemic has had an impact on travel and tourism in Ontario (MHSTCI 2021), and the number of operating establishments offering temporary accommodations has likely changed since 2019, when these data were collected.



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Municipal Services and Infrastructure

The Lambton Area Water Supply System (LAWSS) supplies water to over 100,000 customers located across the County of Lambton, including St. Clair Township (AECOM 2021). The LAWSS includes a direct filtration water treatment plant and 250km of water main. The system is operated by the Ontario Clean Water Agency (LAWSS n.d.).

Health and Education Services and Infrastructure

Lambton County is served by Lambton Public Health and Bluewater Health. There are currently no hospitals in the Project Study Areas, however; the nearest medical centres include: Aamjiwnaang First Nation Health Centre (located at 1300 Tashmoo Ave, Sarnia) and the Blue Water Health - Sarnia Hospital (located at 89 Norman Street, Sarnia) (Bluewater Health 2019).

There are more than 129 elementary schools, 34 secondary schools, and one combined school from kindergarten to Grade 12 in Lambton County which are managed by four school boards: Lambton Kent District School Board, St. Clair Catholic District School Board, Conseil scolaire de district du Centre-Sud-Ouest (French School Board), and Conseil scolaire de district des écoles catholiques du Sud-Ouest (French Catholic School Board). No elementary schools or high schools are located in the Project Study Areas.

Roads, Highways and Culverts

The Public Works department of the County of Lambton is responsible for managing the County of Lambton Road system, which includes almost 650 km of roadway and over 190 bridges and major culverts in St. Clair Township (County of Lambton 2019). Access to site TVC 7 is from Bentpath Line, an arterial county road (also known as County Road 2). Access to site TKC 68 is from Moore Line, a local road. Two additional arterial county roads are nearby, including County Road 80, which travels east-west, and County Road 40, which travels north-south. There are many additional local roads and there are no Ministry of Transportation network roads (County of Lambton, n.d.).

Policing, Fire and Emergency Response Services

The Township of St. Clair has contracted their Police Services with the Ontario Provincial Police. The nearest detachments are located in Petrolia, Ontario and Corunna, Ontario (OPP 2019).

In St. Clair Township there is one full-time fire chief and two full-time deputy chiefs, six fire stations, and 170 volunteer fire-fighters. There are two fire stations located in Bridgen and Wilkesport, Ontario.

Land ambulance services are provided by Lambton County's Emergency Medical Services Department to all residents of Lambton County.



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3.5.4 Culture, Tourism and Recreational Facilities

Recreational activities in Lambton County include parks and trails, community centres, and agricultural activities, including farmer's markets and stands, agricultural societies (Tourism Sarnia-Lambton 2021). The Bridgen fairgrounds are located approximately 6 km southeast of TKC 68, where the Moore Agricultural Society runs the annual Bridgen Fair on Thanksgiving weekend, along with regular events through the year, including brunches, drive-in movie screenings and jamborees (Moore Agricultural Society 2020). Approximately 1.6 km north of the TCV 7 Project location is the Nicholl's Memorial Forest, which offers opportunities for fishing, hiking, snowshoeing, and cross-country skiing (St. Clair Region Conservation Authority 2021).

3.5.5 Air Quality and Noise

The landscape in both Study Areas consists of agricultural land. Agricultural operations have the potential to expel air emissions. Although the Study Areas do not have a high population density, air emissions will be released through vehicle use.

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

The Study Areas are expected to experience a low traffic volume that represents a minimal source of noise. Other minor noise sources within the Study Areas include occasional sounds due to anthropogenic agricultural activities and occasional sounds due to anthropogenic domestic activities such as property maintenance and recreation.

3.5.6 Land Use Designations

Municipal land uses, policies, and practices at the two Project locations are governed by the Lambton County OP (2020), St. Clair Township OP (2005), and Zoning By-laws (2013).

Section 1.4 of the Lambton County OP cites that detailed land use policies and designations are enunciated through local municipal official plans. As such, to determine the potential impact to land use, the following discussion and analysis is largely focused on the Project's conformity to the St. Clair Township OP.

Schedule 'A-1' of the St. Clair Official Plan (2005) designates the land use of both Study Areas as Industrial Type Three (2005). Type Three industrial designations are intended to accommodate large scale or heavy industries and include possible land uses, i.e., petrochemical refining, chemical refining, and any other use in which volatile materials are required in or are a product of manufacturing or processing. Given the high industrial activity permitted in these areas, residential land uses are limited. According to part C, Section 2.1 "except as provided for in Section 2.2, the following public services and facilities are permitted in all land use categories, subject to the development policies of this Plan: f) natural gas pipelines and accessory works."



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At the two Project locations there are oil and gas developments comprising of existing Enbridge Gas pipelines, natural gas storage wells, and associated infrastructure. These developments are situated in lands which are also used for agricultural purposes. No change in existing property use and zoning are proposed.

As cited in section 3.3.5 of this Report, most rural land in Lambton County is comprised of prime agricultural land (Classes 1-3, Canada Land Inventory), including specialty crop areas that are suitable to produce fruits and vegetables. All rural Lambton is a prime agricultural area (County of Lambton 2020, page 4-11). The Provincial Policy Statement (PPS) (2020), which the County OP must conform to and be consistent with, establishes that planning authorities may permit non-agricultural uses in prime agricultural areas for extraction of minerals, petroleum resources, and mineral aggregate resources (see policy 2.3.6.1 of the PPS).

There are no natural heritage system features identified in the Study Area of TCV 7 on the County of Lambton OP (County of Lambton 2020). One SGRA was identified in the Study Area of TKC 68. SGRA's are defined as "Group C Features" in the Lambton OP and are considered to be designated natural heritage system features (County of Lambton 2020 pg 8-2). Within the County, local official plans address general controls on development with the aim of improving the overall health of the natural heritage system including the improvement of linkages within corridors.

3.5.7 Landfills and Contaminated Sites

Landfills

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

No Small Landfill Sites or Large Landfill Sites listed on the MECP website were identified in the Project Study Areas.

Contaminated Sites

The Project locations occur on agricultural lands, surrounded by industrial land uses and active DSAs.

3.5.8 Archaeological Resources

Within the realm of archaeology, it is commonly accepted that the spatial distribution of archaeological sites is largely dependent on a wide spectrum of features such as landform, soil type, water proximity, vegetation cover, climatic conditions, and other variables that characterize the environmental context and influence the cultural decisions made regarding site location. It is therefore possible for Indigenous and/or early European artifacts to be present at the two Project locations.



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3.5.9 Cultural Heritage Resources

A screening for built heritage resources and cultural heritage landscapes in the Study Areas was conducted. The screening identified that in no portion of either Study Area contains known or recognized cultural heritage value, nor the potential for cultural heritage value. There is also no local or Indigenous knowledge, or accessible documentation, suggesting the Study Areas are considered a landmark in the local community, contains structures or sites important in defining the character of the area, has a special association with a community, person, or historical event, or contains or is a part of a cultural heritage landscape.

3.5.10 Indigenous Interests

Both Project locations are located on lands that form Treaty 29, or the Huron Tract Purchase, signed on July 10, 1827, by representatives of the Crown and certain Anishinaabe peoples. The territory described in the written treaty covers approximately 2,200,000 acres (Indigenous and Northern Affairs Canada 2016).

Ontario, as the Crown, has a legal duty to consult with Indigenous peoples regarding projects or decisions that may adversely impact constitutionally protected Indigenous or treaty rights. In the Letter of Delegation, the MENDM identified that the potential for impacts to the following Indigenous communities:

- Bkejwanong (Walpole Island) First Nation
- Aamjiwnaang First Nation
- Chippewas of Kettle and Stony Point First Nation
- Chippewas of the Thames
- Oneida Nation of the Thames



4.0 POTENTIAL IMPACTS, MITIGATION AND PROTECTIVE MEASURES, AND NET IMPACTS

4.1 METHODOLOGY

4.1.1 Overview

The potential effects and impacts of the project on physical, biophysical, and socio-economic features have been assessed in the Study Areas upon review of the existing conditions outlined in Sections 3.3-3.5. With an understanding of construction and operation/maintenance activities (see Sections 4.1.2 and 4.1.3, respectively) 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
- The oil and gas 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 Areas to a site-specific survey of features in the Project footprints. The data available at the current stage of the environmental study is appropriate for predicting potential impacts and recommending mitigation and protective measures.

There are instances where field investigations are recommended before construction. Given the location of the Project components and experience of Stantec in providing environmental services for the oil and gas sector, these supplemental studies are not expected to change the conclusions regarding potential adverse residual impacts.

Table 4.1 below summarizes the potential impacts, mitigation, and protective measures, including recommended supplemental studies, and net impacts for the existing conditions described in Section 3.0.



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4.1.2 Construction

4.1.2.1 TKC 68 Project Location

Project construction activities at the TKC 68 Project location involve a permanent gravel access laneway and gravel drilling pad (later reduced to a smaller permanent well pad), a new natural gas storage well, and a new 120 m, 10-inch natural gas pipeline. All activities will occur on agricultural land.

Construction will start with preparing the construction area by installing environmental silt fencing at required locations. The permanent access laneway and temporary gravel drill pad will involve excavation of topsoil and placement of crushed gravel on top of geotextile material.

The new natural gas storage well will be drilled with either a rotary tool (with a rotating bit) or cable tool (with a chisel-type bit). Either method will involve the removal of drill cuttings via a fluid. Drill cuttings and the medium to remove them will be stored in tanks on the drilling pad, prior to testing for contaminants and subsequent removal to an appropriate facility.

The pipeline installation will follow typically construction techniques: excavation of a trench (separating topsoil from subsoil), pipe welding, lowering the pipe into the trench, connections with existing pipe infrastructure, hydrostatic testing of the new pipeline, backfilling of the trench with suitable material, then drying the pipe, purging the pipe of air, and filling the pipe with natural gas.

Following construction of the new natural gas storage well and pipeline, the temporary gravel drilling pad will be reduced in size by removing extraneous crushed gravel and the underlying geotextile cloth and replacing the stockpiled topsoil. The remaining area is a new access laneway, and a permanent graveled well pad with storage well.

4.1.2.2 TCV 7 Project Location

Project construction activities at the TCV 7 Project location involve a new permanent access laneway, a gravel drilling pad (later reduced to a smaller permanent well pad), and a new natural gas storage well. All activities will occur on agricultural land.

Construction will start with preparing the construction area by installing environmental silt fencing at required locations. The permanent access laneway and temporary gravel drill pad will involve excavation of topsoil and placement of crushed gravel on top geotextile.

The new natural gas storage well will be drilled with either a rotary tool (with a rotating bit) or cable tool (with a chisel-type bit). Either method will involve the removal of drill cuttings via a fluid. Drill cuttings and the medium to remove them will be stored in tanks on the drilling pad, prior to testing for contaminants and subsequent removal to an appropriate facility.



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Following construction of the new natural gas storage well, the temporary gravel drilling pad will be reduced in size by removing extraneous crushed gravel and replacing the stockpiled topsoil. The remaining area is a new access laneway, and a permanent graveled well pad with storage well.

4.1.3 Operation and Maintenance

Once the Project is operational, the following activities are undertaken to patrol and maintain the Project:

- Completing inspection by Enbridge Gas at least once a year 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.
- 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 storage wells and valve sites.

4.2 SUMMARY TABLE



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Table 4.1: 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 <i>Section 3.3.1</i>	Based on the deep location of bedrock, it is likely that it will only be encountered during drilling of the new wells, for which bedrock removal will be required. Potential impacts include interference with nearby water wells, and sensory disturbance to residents and wildlife.	<ul style="list-style-type: none"> • Consultation should occur with landowners to confirm distance of the drilling for the new wells with active water wells. Should drilling occur within 100m of an active water well, Enbridge Gas should consult a hydrogeologist to determine whether mitigation and/or monitoring may be warranted. • Mitigation and protective measures for disturbance to residents are outlined in Section 3.5. • Mitigation and protective measures for disturbance to wildlife are outlined in Section 3.4. 	With the implementation of the mitigation and protective measures, no significant adverse residual impacts from encountering bedrock are anticipated.
Surficial Geology and Physiography <i>Section 3.3.2</i>	Disturbance to the overburden may cause surface soil erosion.	<ul style="list-style-type: none"> • 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. • 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. • ESC and stabilization measures should be maintained during construction, restoration, and rehabilitation until the site is established. Where evidence of erosion exists, corrective 	With the implementation of the mitigation and protective measures, no significant adverse residual impacts to or from the overburden material are anticipated.



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Table 4.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		<p>control measures should be implemented as soon as conditions permit.</p> <ul style="list-style-type: none"> Permits obtained from the SCRCA may contain conditions pertaining to ESC. 	
Groundwater <i>Section 3.3.3</i>	<p>Based on consultation with the MECP Source Protection Programs Branch, natural gas pipelines are not identified as a significant threat to drinking water sources under the Clean Water Act, 2006. However, certain activities related to the construction of pipelines may pose a risk to sources of drinking water.</p> <p><u>Hydrostatic Testing and Dewatering</u></p> <p>The pipeline will be hydrostatically tested before commissioning. 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 be contacted to confirm the maximum rate of withdrawal.</p> <p>Where excavation encounters shallow groundwater conditions or following a large precipitation event, removing water (known as dewatering) may be necessary. During dewatering, discharge water will be released to the environment. An uncontrolled discharge of water could cause downstream flooding, erosion, sedimentation, or</p>	<p><u>Hydrostatic Testing and Dewatering</u></p> <ul style="list-style-type: none"> 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. 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. 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 using protective riprap or equivalent. If energy dissipation measures are found to be inadequate, the rate of dewatering should be reduced or dewatering discontinued until satisfactory mitigation measures are in place. Discharge should be monitored to make sure that no erosion or flooding occurs. To assess the potential for introduction of contaminated water to soils or bodies of water, testing of hydrostatic and 	<p>With the implementation of the mitigation and protective measures, no significant adverse residual impacts on groundwater are anticipated.</p>



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Table 4.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	<p>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.</p> <p><u>Private Water Wells</u></p> <p>There is one private water well near the TCV 7 Project location. Depending on the proximity to wells, the depth of the well installation, and the groundwater levels encountered, dewatering has the potential to impact water well quality or quantity.</p>	<p>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.</p> <p><u>Private Water Wells</u></p> <ul style="list-style-type: none"> A private well survey should be conducted to assess domestic groundwater use near the Project and a private well monitoring program may be recommended for residents who rely on overburden groundwater supply for domestic use. This monitoring program may include pre--construction water quality monitoring as well as water level monitoring, if available. Should a private water well be affected by project construction, a potable water supply should be provided, and the water well should be repaired or restored as required. 	
Aggregates and Petroleum Resources <i>Section 3.3.4</i>	The Study Areas are located in DSAs, Project construction may interact with existing infrastructure.	<ul style="list-style-type: none"> Enbridge Gas will follow internal procedures and communication protocols to identify and avoid adverse impacts to existing infrastructure in the DSAs. 	With following procedures and communication, no significant adverse residual impacts on aggregates and petroleum resources are anticipated.
Soil and Soil Capability <i>Section 3.3.5</i>	<p>Excess soil may be generated on-site during construction activities that will require off-site management.</p> <p>Trenching and construction activities have the potential to affect soil quality. The movement of heavy machinery on wet soil may cause rutting and mixing of topsoil with subsoil. When exposed, soils are more prone to erosion due to the loss of vegetative cover. Improperly</p>	<p><u>Excess Soil</u></p> <ul style="list-style-type: none"> 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, to make recommendations for the management of excess soils. <p><u>Wet Soil Shutdown</u></p> <ul style="list-style-type: none"> To the extent feasible, construction activities should occur during drier times of the year. Lands affected by heavy rainfall 	With the implementation of the mitigation and protective measures, no significant adverse residual impacts on soil or soil capability are anticipated.



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Table 4.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	salvaged topsoil can result in topsoil and subsoil mixing, rutting, and erosion.	<p>events should be monitored for wet 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.</p> <ul style="list-style-type: none">• 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. <p><u>High Winds</u></p> <ul style="list-style-type: none">• 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:<ul style="list-style-type: none">– Suspend earth moving operations– Apply dust suppressants or vegetate the piles– 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. <p><u>Soil Stripping</u></p> <ul style="list-style-type: none">• Enbridge Gas should review the construction footprint and determine if soil stripping is feasible. If stripping is undertaken, topsoil/organize layer and subsoil should be stripped and stockpiled separately to avoid mixing.• 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 soil for over-wintering.	



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Table 4.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		<p><u>Soil Compaction</u></p> <p>Within agricultural lands where soil has been compacted by the construction process, an agrologist should determine where decompaction may be necessary. Compaction can be alleviated by using farm equipment such as an agricultural subsoiler prior to replacing the topsoil. Sub-soiling with an agricultural subsoiler, followed by discing, chisel ploughing and cultivating, to smooth the surface, should be considered on agricultural lands. In high traffic areas where deep compaction persists, additional deep tillage or subsoiling may be required on a site-specific basis. Soil density and/or penetrometer measurements on and off the easement may be used as a means of assessing the relative degree of soil compaction caused by construction as well as determining that soil has been sufficiently de-compacted.</p>	
<p>Agricultural Tile Drains <i>Section 3.3.6</i></p>	<p>Where there is interaction with agricultural land, construction activities have the potential to crush and/or sever agricultural tile drains.</p>	<p>Enbridge Gas should undertake consultation with landowners of agricultural fields to confirm where systematic tile drainage is present. If tile drainage is present, Enbridge Gas should undertake standard mitigation during ground disturbance, including:</p> <ul style="list-style-type: none"> • Develop site specific tile plans with an independent tile contractor • Conduct pre-tiling, and install header tile to maintain tile system function • Record and flag severed or crushed tile drains • If a main drain, header drain, or large diameter drain is severed, maintain field drainage and prevent flooding of the work area and adjacent lands through temporary repairs • Cap the downstream side of severed drains that cross the excavation to prevent the entry of soil, debris and rodents, as required • Repair damaged and severed drains following construction • After repair and before backfilling, invite the landowner to inspect and approve the repair 	<p>With the implementation of the mitigation and protective measures, no significant adverse residual impacts on agricultural tile drains are anticipated.</p>



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Table 4.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
SCN <i>Section 3.3.7</i>	Lands with SCN or other pests and/or diseases have the potential to impact soil productivity, and to be transported by construction equipment from infected to non-infected locations.	<ul style="list-style-type: none"> In consultation with the landowner(s) and an agrologist, Enbridge Gas may develop and implement an agricultural soil sampling plan for potential pests and/or diseases that are known to the area. If the results indicate an issue or concern, in consultation with the landowner, Enbridge Gas will work with the agrologist to develop a best practice protocol. Any imported topsoil used for rehabilitation will have a composite sample analyzed for identified concerns. 	With the implementation of the mitigation and protective measures, no significant adverse residual impacts from SCN or other pests and/or diseases are anticipated.
Natural Hazards <i>Section 3.3.8</i>	<p>The probability of significant seismic activity in the Study Areas is low; therefore, no potential impacts are anticipated.</p> <p>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, 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.</p>	<ul style="list-style-type: none"> 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. All work in the floodplain will be subject to a permit from the SCRCA. 	With the implementation of the mitigation and protective measures, no significant adverse residual impacts from natural hazards are anticipated.



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Table 4.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
BIOPHYSICAL FEATURES			
Aquatic Features <i>Section 3.4.1</i>	Watercourses will be crossed at existing culverts, and therefore direct impacts are not anticipated to aquatic features. Indirect impacts may occur through sedimentation and/or spills.	<ul style="list-style-type: none"> Mitigation and protective measures for erosion and sediment control are outlined in Section 3.3.2. Contingency measures for accidental spills are outlined in Section 6.2.2. 	With the implementation of the mitigation and protective measures, no significant adverse residual impacts to aquatic features are anticipated.
Designated Natural Areas and Vegetation <i>Section 3.4.2</i>	Project activities will occur on agricultural land and therefore direct impacts are not anticipated to designated natural areas and vegetation. Indirect impacts may occur through sedimentation and/or spills into wooded lands, adjacent to the Study Areas.	<ul style="list-style-type: none"> Mitigation and protective measures for erosion and sediment control are outlined in Section 3.3.2. Contingency measures for accidental spills are outlined in Section 6.2.2. 	With the implementation of the mitigation and protective measures, no significant adverse residual impacts to designated natural areas and vegetation are anticipated.
Wildlife Habitat, Wildlife, and Species at Risk <i>Section 3.4.3</i>	<p>There is the potential for 5 SOCC and 8 SAR to occur in/near the TCV 7 Study Area. The majority of species will avoid direct interaction, through avoidance of the woodlot. Bobolink and Eastern Meadowlark habitat and species may be encountered in the agricultural fields.</p> <p>Potential impacts on wildlife, wildlife habitat, and SAR from construction include habitat loss, direct mortality from construction vehicles and/or adults abandoning young due to disturbance, habitat degradation through spills, and sensory disturbance.</p>	<ul style="list-style-type: none"> A field investigation to confirm the potential presence of habitat to support Bobolink and Eastern Meadowlark will be conducted, and approval/mitigation measures implanted as warranted. General mitigation and protective measures for potential impacts on wildlife, wildlife habitat, and SAR are: <ul style="list-style-type: none"> Speed limits should be lowered where field investigations identify specific wildlife concerns. Equipment and vehicles should yield to wildlife. Fencing should be erected around deep excavations to prevent wildlife entrapment. The contractor should inform their personnel to not threaten, harass, or injure wildlife. If wildlife are encountered during construction, personnel are required to move away from the animal and wait for the animal to move off the construction site. Mitigation and protective measures for noise are outlined in Section 3.5.1. Mitigation and protective measures for erosion and sediment control are outlined in Section 3.3.2. 	With the implementation of the mitigation and protective measures, no significant adverse residual impacts on wildlife habitat, wildlife, and SAR are anticipated.



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Potential Impacts, Mitigation and Protective Measures, and Net Impacts
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Table 4.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
		Contingency measures for accidental spills are outlined in Section 6.2.2.	
SOCIO-ECONOMIC ENVIRONMENT			
Residents <i>Section 3.5.1</i>	Despite the lack of residents in vicinity to the project, those travelling near the areas during construction may experience nuisance concerns of increased noise, equipment exhaust, and dust.	<ul style="list-style-type: none"> During construction, motorized construction equipment should be equipped with mufflers. 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. To the greatest extent activities that could create noise should be restricted to daylight hours and adhere to local noise by-laws. Sources of continuous noise, such as portable generators, should be shielded or situated to reduce 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: <ul style="list-style-type: none"> Maintaining equipment in compliance with regulatory requirements Protecting stockpiles of friable material with a barrier or windscreen in the event of dry conditions and dust Dust suppression of source areas Covering loads of friable materials during transport Watering for dust control must not result in the formation of puddles, rutting by equipment or vehicles, the tracking of mud onto roads, or the siltation of watercourses. 	With the implementation of the mitigation and protective measures, no significant adverse residual impacts on residents are anticipated.
Employment and Business <i>Section 3.5.2</i>	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	<ul style="list-style-type: none"> 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 	With the initiatives to encourage local participation on the Project, it is anticipated that the effects from the Project on employment and business will generate positive economic activity through



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Potential Impacts, Mitigation and Protective Measures, and Net Impacts
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Table 4.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	<p>may affect some residents more than others. Residual effects on employment are related to the project's labour demand compared to the labour supply. Three types of employment are considered:</p> <ul style="list-style-type: none"> • 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 <p>During all phases of the project, labour conditions will be affected by direct, indirect, and induced employment.</p> <p>The required workforce will create work opportunity for those living in Lambton County and will result in increased employment income and municipal government revenue.</p> <p>Local businesses, including businesses owned by Indigenous peoples, will also likely benefit from the project through purchases of labour, goods, and services that will</p>	<p>practicable, to procure 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 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.</p> <ul style="list-style-type: none"> • To mitigate adverse impacts to existing businesses, see the measures recommended above for 'Residents'. 	<p>new direct, indirect, and induced employment.</p> <p>Project expenditures on local businesses and suppliers also have the potential to positively affect the economy. 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 will any unlikely nuisance impacts on existing businesses.</p> <p>With the implementation of the Project, local procurement, and mitigation and protective measures, positive residual impacts on the economy and employment are anticipated.</p>



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Potential Impacts, Mitigation and Protective Measures, and Net Impacts
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Table 4.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
	<p>be needed to complete construction of the Project.</p> <p>While construction will generally result in positive effects on employment, some local businesses may be temporarily adversely impacted by increases in noise and traffic volumes during construction.</p>		
Community Services and Infrastructure <i>Section 3.5.3</i>	The presence of temporary workers during the construction period has the potential to increase the demand on local community services and infrastructure.	<ul style="list-style-type: none"> 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. The capacity of waste disposal sites will be considered and if Project needs are not easily accommodated, alternative disposal locations will be considered. 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. 	<p>Community services and infrastructure appear to have additional capacity to absorb potential increased temporary demands that may result from the Project.</p> <p>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.</p>
Culture, Tourism and Recreational Facilities <i>Section 3.5.4</i>	No culture, tourism, or recreational facilities were identified in the vicinity of the Project.	<ul style="list-style-type: none"> As no impacts to culture, tourism, and recreational facilities are anticipated, no mitigation or protective measures are recommended. 	As no impacts are anticipated, no net impacts will occur.



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Table 4.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
Air Quality and Noise <i>Section 3.5.5</i>	Residential and business properties may experience noise, dust and equipment exhaust associated with construction activity. Drilling of the new well may also require blow down/flaring of natural gas. During operation, no substantial air or noise emissions are anticipated to occur.	<ul style="list-style-type: none"> Mitigation and protective measures for air quality and noise are outlined in Section 3.5.1. 	With the implementation of the mitigation and protective measures, no significant adverse residual impacts from air quality and noise are anticipated.
Land Use Designations <i>Section 3.5.6</i>	Natural gas pipelines and their associated facilities/structures are permitted land uses, and therefore no impacts are anticipated.	<ul style="list-style-type: none"> As no impacts to land use designations are anticipated, no mitigation or protective measures are recommended. 	As no impacts are anticipated, no net impacts will occur.
Landfills and Contaminated Sites <i>Section 3.5.7</i>	Improper disposal of waste material generated during construction may result in contamination to soil, groundwater, and/or surface water resources. Litter generated during construction may also become a nuisance to adjacent properties if not contained. There is also the potential to encounter contaminated soil and/or water.	<ul style="list-style-type: none"> The construction contractor should implement a site-specific waste collection and disposal management plan, which may include: <ul style="list-style-type: none"> Waste materials (including drilling cuttings and fluid), sanitary waste, and recycling transported off-site by private waste contractors licensed by the MECP. Contractors required to remove their excess materials from the site. Labelling and storage of hazardous and liquid wastes in a secure area that would contain material in the event of a spill. Implementation of a waste management program consisting of reduction, reuse, and recycling of materials. Section 6.2.3 outlines contingency measures to be implemented should contaminated soils be encountered. Section 3.3.3 outlines testing measures to be implemented during dewatering activities. 	With the implementation of the mitigation and protective measures, no significant adverse residual impacts from landfills and contaminated sites are anticipated.



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Potential Impacts, Mitigation and Protective Measures, and Net Impacts
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Table 4.1: Potential Impacts and Recommended Mitigation and Protective Measures

Environmental Feature(s)	Potential Impact(s)	Mitigation and Protective Measures	Net Impacts
Archaeological Resources <i>Section 3.5.8</i>	Construction has the potential to interact with archaeological resources.	<ul style="list-style-type: none"> A Stage 1 and Stage 2 AA will be conducted on lands disturbed by the Project. The results of the assessments will determine appropriate mitigation and protective measures for the sites. Where feasible for the Project, archaeological sites that are determined to retain further cultural heritage value and interest may be mitigated in whole or in part by avoidance and protection/preservation measures. Where avoidance and protection/preservation measures are not feasible, archaeological resources may be mitigated in whole or in part by excavation. 	With the implementation of the archaeological assessment and subsequent mitigation measures, including avoidance and protection/preservation (where feasible) and excavation, no significant adverse residual impacts on archaeological resources are anticipated.
Cultural Heritage Resources <i>Section 3.5.9</i>	The cultural heritage checklist identified no heritage features or landscapes, and therefore no impacts are anticipated.	<ul style="list-style-type: none"> As no impacts to cultural heritage resources are anticipated, no mitigation or protective measures are recommended. 	As no impacts are anticipated, no net impacts will occur.
Indigenous Interests <i>Section 3.5.10</i>	The Project may affect traditional territories of Indigenous communities, and during construction harvesting and hunting in the construction area could be impeded. Archaeological surveys could also result in the finding of Indigenous artifacts. Potential permits and approvals required for the project may trigger a duty to consult.	<ul style="list-style-type: none"> 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's 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.



5.0 CUMULATIVE EFFECTS ASSESSMENT

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

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

5.1 METHODOLOGY

The cumulative effects assessment describes the potential cumulative effects resulting from the interaction of residual effects of constructing and operating 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 within an area or system due to past, present, and future activities. Change can accumulate in systems by either an additive (i.e., cumulative) or interactive (i.e., synergistic) manner. Positive residual effects have not been assessed in the cumulative effects assessment.

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

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

- Existing infrastructure, facilities, and activities as determined from available data sets
- The proposed Project
- 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.



5.2 STUDY BOUNDARIES

Spatial

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

Temporal

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

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

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

Based upon these milestone activities, two time periods were selected for evaluation: 2021/2022 and 2027. The year 2022 was selected to represent the construction period, and the year 2027 was selected to represent the operation and maintenance period. Forecasting beyond 2027 increases the uncertainty in predicting whether projects will proceed, and the effects associated with these projects.

5.3 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 Project in the spatial and temporal study boundaries. The following resources were reviewed:

- Canada Energy Regulator, Major Applications and Projects (CER 2021)
- Canadian Environmental Assessment Agency, Canadian Environmental Assessment Registry (CEA Agency 2021)
- County of Lambton, Budget and Financial Statements (County of Lambton 2021)
- Government of Ontario, Environmental Assessment Projects by Category (Government of Ontario, 2021a)
- Government of Ontario, Renewable Energy Approval Projects (2021b)



- Infrastructure Ontario, Infrastructure Ontario Projects – Interactive Map (Government of Ontario n.d.)
- MTO, Southern Highways Program (2017-2021) (MTO n.d.)
- OEB Applications Currently Before the Board (facilities applications only) (OEB 2021)

Based on the review of publicly available resources, no projects have been identified for the project inclusion list. However, it is assumed that on-going improvements to Tecumseh Road and Moore Line (TKC 68 Project Location), and Bentpath Line and Kimball Road (TCV 7 Project location), may occur in the spatial and temporal study boundaries.

5.4 ANALYSIS OF CUMULATIVE EFFECTS

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

5.4.1 Construction – Year Late 2021/Spring 2022

Residual Project impacts which may occur during Project construction are outlined in Table 4.1. To consider the additive and interactive effects at their maximum intensity, the cumulative effects assessment assumes that Project construction will occur concurrently. Potential cumulative effects resulting from the Project construction and the concurrent nearby activities are additive effects on wildlife, air quality and the acoustic environment.

The construction of the project will result in an increase in noise and air pollutants and increase in dust from the operation of vehicles and equipment. These potential effects on air quality and the acoustic environment may be felt by nearby wildlife, residents, and businesses, and may be compounded by work being undertaken by municipal public works. Provided that the mitigation and protective measures outlined in this ER are implemented, significant changes to existing conditions and adverse cumulative residual effects are not anticipated to occur.

5.4.2 Operation and Maintenance – Year 2027

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 well maintenance or 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



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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 Enbridge Gas 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.

5.5 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 Project. A 100 m boundary around the Project locations was used to assess the potential for additive and interactive effects of the Project and other developments on environmental and socio-economic features.

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



6.0 MONITORING AND CONTINGENCY PLANS

6.1 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 projects.

Previous construction experience, and a review of post-construction monitoring reports from other projects, indicates that impacts from oil and gas 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 should become part of the contract specification with the contractor selected to construct the Project.
- A walking inspection of the Project area 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.

6.1.1 Water Wells

Before construction, a private well survey should take place to assess domestic groundwater use near the Project and determine the need for a well monitoring program, as outlined in Table 4.1.

6.1.2 Exposed Soils

Monitoring of potential effects on exposed soils should occur during construction by Enbridge Gas's on-site inspection team.

6.1.3 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 will depend on the species present.



6.1.4 Residents and Businesses

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

6.2 CONTINGENCY

Contingency planning is necessary to prevent a delayed or ineffective response to unexpected events or conditions that may occur during construction of the 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.

6.2.1 Watercourse Sedimentation

Even with properly installed ESC measures, extreme runoff events could lead to sedimentation of watercourses. If sedimentation of a watercourse occurs, immediate action should be taken under the direction of on-site environmental personnel to install temporary measures that will contain the erosion as quickly and effectively as practical. Notification should occur to the SCRCA regarding the incident and the corrective actions being implemented. When site conditions permit, permanent protection measures should be reinstalled on erosion susceptible surfaces. If the erosion and sedimentation results from a construction-related activity, the activity should be halted immediately until the situation is rectified.

6.2.2 Accidental Spills

During construction, accidental spill of fluids may occur of hydrocarbon-based construction fluid, or well drilling fluid. 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 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.



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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 either Project location the Spills Response Plan should be implemented.

6.2.3 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. If 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, 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.



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7.0 CONCLUSION

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

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



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APPENDIX A:

Figures

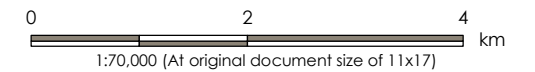


Legend

- 1. Project Location of TKC 68
- 2. Project Location of TCV 7
- Expressway / Highway
- Major Road
- Minor Road
- Railway
- Watercourse
- Waterbody
- Wooded Area
- Municipal Boundary - Lower Tier
- Municipal Boundary - Upper Tier

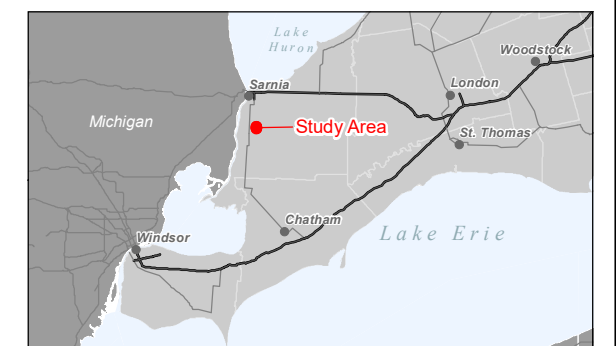
Site Features

- Well
- Permanent Access
- Proposed Connecting Pipeline
- Temporary Pad (approx. 10,000 m²)
- Permanent Pad (approx. 60 m²)



Notes

- Coordinate System: NAD 1983 UTM Zone 17N
- Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2021.
- Orthoimagery © 2021 Microsoft Corporation © 2021 Maxar © CNES (2021) Distribution Airbus DS



Project Location
Township of St. Clair

160961448 REVA
Prepared by PRM on 2021-10-15
Technical Review by KG on 2021-10-15

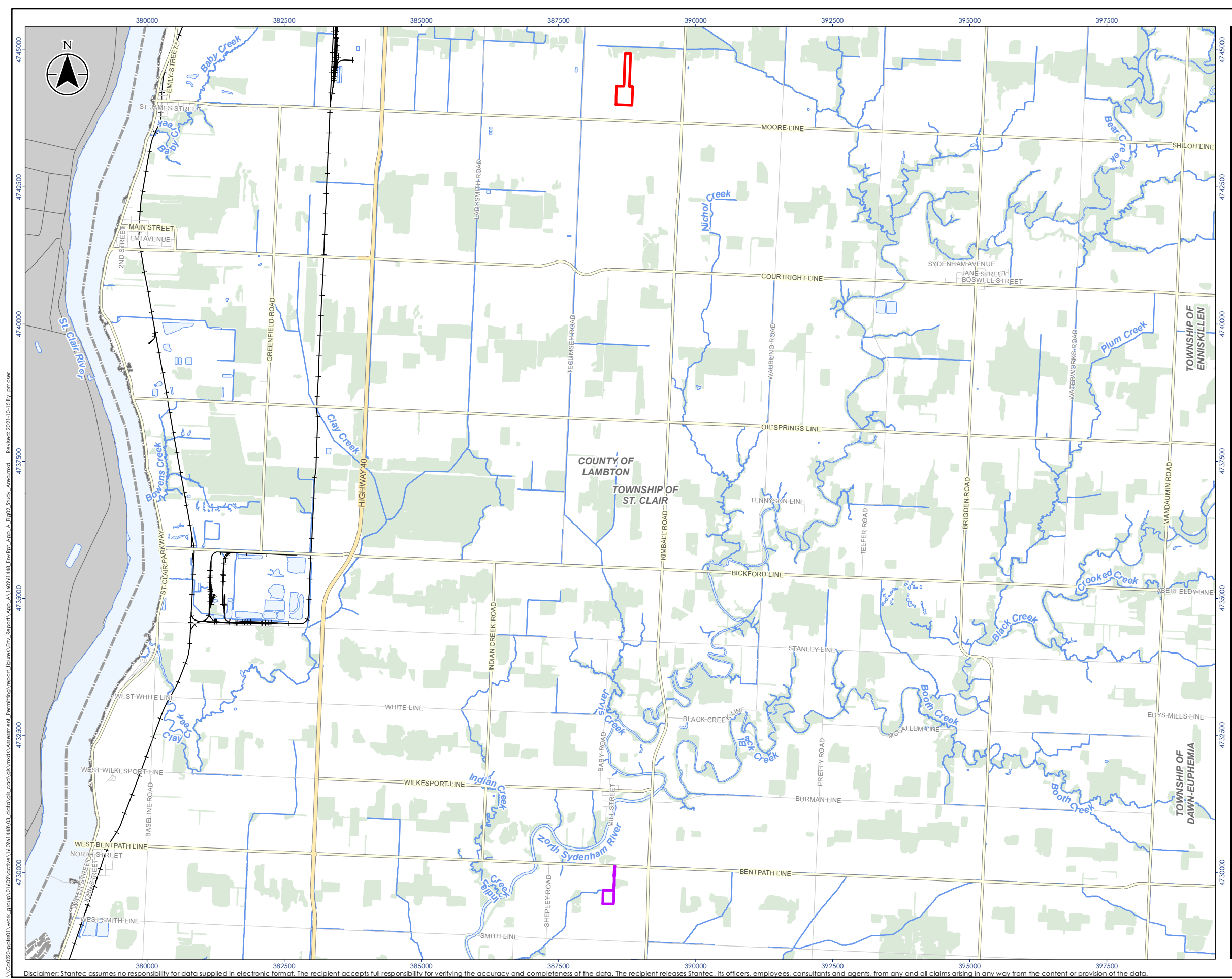
Client/Project
Enbridge Gas Inc.
Coveny and Kimball-Colinville Well Drilling Project

Figure No.

1

Title

Project Locations



Legend

- Study Area of TKC 68
- Study Area of TCV 7
- Expressway / Highway
- Major Road
- Minor Road
- Railway
- Watercourse
- Waterbody
- Wooded Area
- Municipal Boundary - Lower Tier
- Municipal Boundary - Upper Tier

0 2 4 km

1:70,000 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N

2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2021.

Project Location
Township of
St. Clair

160961448 REVA
Prepared by PRM on 2021-10-15
Technical Review by KG on 2021-10-15

Client/Project
Enbridge Gas Inc.
Coveny and Kimball-Colinville Well Drilling Project

Figure No.
2

Title
Study Area

APPENDIX B:

Consultation

APPENDIX B1:
Letter of Delegation

**Ministry of Energy, Northern
Development and Mines**

**Ministère de l'Énergie, du Développement du Nord
et des Mines**



Energy Networks & Indigenous
Policy Branch

Direction Générale des Réseaux Énergétiques et des
Politiques Autochtones

77 Grenville Street
6th Floor
Toronto ON M7A 2C1

77, rue Grenville
6e étage
Toronto ON M7A 2C1

VIA EMAIL

June 1, 2021

Asha Patel
Technical Manager, Regulatory Affairs
Enbridge Gas Inc.
500 Consumers Road
North York, ON.
M2J 1P8

Re: Coveny and Kimball-Colinville Well Drilling Project

Dear Asha Patel:

Thank you for your e-mail with attached letter dated May 5, 2021 notifying the Ministry of Energy, Northern Development and Mines (ENDM) of Enbridge Gas Inc.'s (Enbridge) intention to apply to the Ontario Energy Board (OEB) for Leave to Construct for the Coveny and Kimball-Colinville Well Drilling Project (the Project).

I understand that Enbridge is planning to drill 2 wells (an A-1 observation well (TCV 7) and a natural gas storage well (TKC 68)). The project will also include the installation of a 120m NPS 10 lateral pipeline with a maximum operating pressure of 9,310 kPag (above the current LTC threshold of 2,000 kPag), this pipeline will connect the natural gas storage well (TKC 68) to the existing Kimball-Colinville gathering pipeline.

On behalf of the Government of Ontario (the Crown), ENDM has reviewed the information provided by Enbridge with respect to the Project and assessed it against the Crown's current understanding of the interests and rights of Aboriginal communities who hold or claim Aboriginal or treaty rights protected under Section 35 of Canada's *Constitution Act 1982* (Indigenous Communities) in the area. In doing so, ENDM has determined that the Project may have the potential to affect such Indigenous communities.

The Crown has a constitutional duty to consult and, where appropriate, accommodate Indigenous communities when the Crown contemplates conduct that might adversely impact established or asserted Aboriginal or Treaty rights. These consultations are in addition to consultation imposed by statute.

While the legal responsibility to meet the duty to consult lies with the Crown, the Crown may delegate the day-to-day, procedural aspects of consultation to project proponents. Such a delegation by the Crown to Proponents is routine practice for ENDM.

I am writing to advise you that on behalf of the Crown, ENDM is delegating the procedural aspects of consultation in respect of the Project to Enbridge (Proponent) through this letter. ENDM expects that the Proponent will undertake the procedural aspects of consultation with respect to any regulated requirements for the proposed Project. The Crown will fulfill the substantive aspects of consultation and retain oversight over all aspects of the process for fulfilling the Crown's duty.

Please see the appendix for information on the roles and responsibilities of both the Crown and the Proponent.

Based on the Crown's assessment of First Nation and Métis community rights and potential project impacts, the following Indigenous communities should 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.

Community	Mailing Address
Aamjiwnaang First Nation	978 Tashmoo Avenue Sarnia, ON N7T 7H5 T: (519) 336-8410 F: (519) 336-0382 Web: Aamjiwnaang
Bkejwanong (Walpole Island First Nation)	RR 3, Wallaceburg, ON N8A 4K9 T: (519) 627-1481 F: (519) 627-0440 Web: Walpole Island
Chippewas of the Thames First Nation	RR 1, Muncey, ON N0L 1Y0 T: (519) 289-5555 F: (519) 289-2230 Web: Chippewas of the Thames First Nation
Chippewas of Kettle and Stony Point First Nation	6247 Indian Lane Kettle and Stony Point First Nation, ON N0N 1J1 T: (519) 786-2125 F: (519) 786-2108 Web: Chippewas of Kettle and Stony Point
Oneida Nation of the Thames	RR 2, Southwold, ON N0L 2G0 T: (519) 652-3244 F: (519) 652-9287 Web: Oneida Nation of the Thames

This rights-based consultation list is based on information that is subject to change. Consultation is ongoing throughout the duration of the project, including project development and design, consultation, approvals, construction, operation and decommissioning. First Nations and Métis communities may make new rights assertions at any time, and further project related developments can occur that may require additional First Nation and/or Métis communities to be notified and/or consulted.

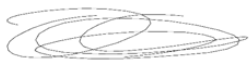
If you become aware of potential rights impacts on Indigenous communities that are not listed above at any stage of project, please bring this to the attention of ENDM with any supporting information regarding the claim at your earliest convenience.

Acknowledgement

By accepting this letter, the Proponent acknowledges this Crown delegation and the procedural consultation responsibilities enumerated in the appendix. If you have any questions about this request, you may contact Jonathon Wilkinson (jonathon.wilkinson@ontario.ca).

I trust that this information provides clarity and direction regarding the respective roles of the Crown and Enbridge. If you have any questions about this letter or require any additional information, please contact me directly.

Sincerely,



Dan Delaquis
Manager, Indigenous Energy Policy

c: Ontario Pipeline Coordinating Committee (OPCC)

APPENDIX: PROCEDURAL CONSULTATION

Roles and Responsibilities Delegated to the Proponent

On behalf of the Crown, please be advised that your responsibilities as Project Proponent for this Project include:

- providing notice and information about the Project to Indigenous communities, with sufficient detail and at a stage in the process that allows the communities to prepare their views on the Project and, if appropriate, for changes to be made to the Project. This can include:
 - accurate, complete and plain language information including a detailed description of the nature and scope of the Project and translations into Aboriginal languages where appropriate;
 - maps of the Project location and any other affected area(s);
 - information about the potential negative effects of the Project on the environment, including their severity, geographic scope and likely duration. This can include, but is not limited to, effects on ecologically sensitive areas, water bodies, wetlands, forests or the habitat of species at risk and habitat corridors;
 - a description of other provincial or federal approvals that may be required for the Project to proceed;
 - whether the Project is on privately owned or Crown controlled land;
 - any information the Proponent may have on the potential effects of the Project, including particularly any likely adverse impacts on established or asserted Aboriginal or treaty rights;
 - a written request asking the Indigenous community to provide in writing or through a face-to-face meeting:
 - any information available to them that should be considered when preparing the Project documentation;
 - any information the community may have about any potential adverse impacts on their Aboriginal or treaty rights; and
 - any suggested measures for avoiding, minimizing or mitigating potential adverse impacts;
 - information about how information provided by the Indigenous community as part of the consultation process will be collected, stored, used, and shared for their approval;
 - identification of any mechanisms that will be applied to avoid, minimize or mitigate potential adverse impacts;
 - identification of a requested timeline for response from the community and the anticipated timeline for meeting Project milestones following each notification;
 - an indication of the Proponent's availability to discuss the process and provide further information about the Project;
 - the Proponent's contact information; and
 - any additional information that might be helpful to the community;

- following up, as necessary, with Indigenous communities to ensure they received Project notices and information and are aware of the opportunity to comment, raise questions or concerns and identify potential adverse impacts on their established or asserted rights;
- gathering information about how the Project may adversely affect Aboriginal or treaty rights;
- bearing the reasonable costs associated with the procedural aspects of consultation (paying for meeting costs, making technical support available, etc.) and considering reasonable requests by communities for capacity funding to assist in participating in the consultation process;
- considering and responding to comments and concerns raised by Indigenous communities and answering questions about the Project and its potential impacts on Aboriginal or treaty rights;
- as appropriate, discussing and implementing changes to the Project in response to concerns raised by Indigenous communities. This could include modifying the Project to avoid or minimize an impact on an Aboriginal or treaty right (e.g. altering the season when construction will occur to avoid interference with mating or migratory patterns of wildlife); and
- informing Indigenous communities about how their concerns were taken into consideration and whether the Project proposal was altered in response. It is considered a best practice to provide the Indigenous community with a copy of the consultation record as part of this step for verification.

If you are unclear about the nature of a concern raised by an Indigenous community, you should seek clarification and further details from the community, provide opportunities to listen to community concerns and discuss options, and clarify any issues that fall outside the scope of the consultation process. These steps should be taken to ensure that the consultation process is meaningful and that concerns are heard and, where possible, addressed.

You can also seek guidance from the Crown at any time. It is recommended that you contact the Crown if you are unsure about how to deal with a concern raised by an Indigenous community, particularly if the concern relates to a potential adverse impact on established or asserted Aboriginal or treaty rights.

The consultation process must maintain sufficient flexibility to respond to new information, and we request that you make all reasonable efforts to build positive relationships with all Indigenous communities potentially affected by the Project. If a community is unresponsive to efforts to notify and consult, you should nonetheless make attempts to update the community on the progress of the Project, the environmental assessment (if applicable) and other regulatory approvals.

If you reach a business arrangement with an Indigenous community that may affect or relate to the Crown's duty to consult, we ask that that Crown be advised of those aspects of such an arrangement that may relate to or affect the Crown's consultation obligations, and that the community itself be apprised of the Proponent's intent to so-apprise the Crown. Whether or not any such business arrangements may be reached with any community, the Crown expects the

Proponent to fulfill all of its delegated procedural consultation responsibilities to the satisfaction of the Crown.

If the Crown considers that there are outstanding issues related to consultation, the Crown may directly undertake additional consultation with Indigenous communities, which could result in delays to the Project. The Crown reserves the right to provide further instructions or add communities throughout the consultation process.

Roles and responsibilities assumed directly by the Crown

The role of the Crown in fulfilling any duty to consult and accommodate in relation to this Project includes:

- identifying for the Proponent, and updating as appropriate, the Indigenous communities to consult for the purposes of fulfillment of the Crown duty;
- carrying out, from time to time, any necessary assessment of the extent of consultation or, where appropriate, accommodation, required for the project to proceed;
- supervising the aspects of the consultation process delegated to the Proponent;
- determining in the course of Project approvals whether the consultation of Indigenous communities was sufficient;
- determining in the course of Project approvals whether accommodation of Indigenous communities, if required, is appropriate and sufficient.

Consultation Record

It is important to ensure that all consultation activities undertaken with Indigenous communities are fully documented. This includes all attempts to notify or consult the community, all interactions with and feedback from the community, and all efforts to respond to community concerns. Crown regulators require a complete consultation record in order to assess whether Aboriginal consultation and any necessary accommodation is sufficient for the Project to receive Ontario government approvals. The consultation record should include, but not be limited to, the following:

- a list of the identified Indigenous communities that were contacted;
- evidence that notices and Project information were distributed to, and received by, the Indigenous communities (via courier slips, follow up phone calls, etc.). Where a community has been non-responsive to multiple efforts to contact the community, a record of such multiple attempts and the responses or lack thereof.
- a written summary of consultations with Indigenous communities and appended documentation such as copies of notices, any meeting summaries or notes including where the meeting took place and who attended, and any other correspondence (e.g., letters and electronic communications sent and received, dates and records of all phone calls);
- responses and information provided by Indigenous communities during the consultation process. This includes information on Aboriginal or treaty rights, traditional lands, claims, or cultural heritage features and information on potential adverse impacts on such

Aboriginal or treaty rights and measures for avoiding, minimizing or mitigating potential adverse impacts to those rights; and

- a summary of the rights/concerns, and potential adverse impacts on Aboriginal or treaty rights or on sites of cultural significance (e.g. burial grounds, archaeological sites), identified by Indigenous communities; how comments or concerns were considered or addressed; and any changes to the Project as a result of consultation, such as:
 - changing the Project scope or design;
 - changing the timing of proposed activities;
 - minimizing or altering the site footprint or location of the proposed activity;
 - avoiding impacts to the Aboriginal interest;
 - environmental monitoring; and
 - other mitigation strategies.

As part of its oversight role, the Crown may, at any time during the consultation and approvals stage of the Project, request records from the Proponent relating to consultations with Indigenous communities. Any records provided to the Crown will be subject to the *Freedom of Information and Protection of Privacy Act*, however, may be exempted from disclosure under section 15.1 (Relations with Aboriginal communities) of the Act. Additionally, please note that the information provided to the Crown may also be subject to disclosure where required under any other applicable laws.

The contents of what will make up the consultation record should be shared at the onset with the Indigenous communities consulted with and their permission should be obtained. It is considered a best practice to share the record with the Indigenous community prior to finalizing it to ensure it is a robust and accurate record of the consultation process.

APPENDIX B2:
Project Contact List

TITLE	FIRST NAME	SURNAME	ORGANIZATION	DEPARTMENT	POSITION	ADDRESS	CITY/TOWN	PROVINCE	POSTAL CODE	TELEPHONE	E-Mail
PROVINCIAL AGENCIES											
	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
	Sarah	Kielek-Caster	Ministry of Agriculture and Food, Ministry of Rural Affairs	Land Use Policy & Stewardship	Rural Planner	667 Exeter Road	London	ON	N6E 1L3		sarah.kielek-caster@ontario.ca
	Annamaria	Cross	Environmental Assessment and Permissions Branch	Director, EA Modernization		136 St. Clair Ave. W, 1st Floor	Toronto	ON	M4V 1P5	416-314-7967	annamaria.cross@ontario.ca
	Joseph	Harvey	Ministry of Hertiage, Sport, Tourism and Culture	Heritage Planning Unit	Heritage Planner					613-242-3743	joseph.harvey@ontario.ca
	Karla	Barboza	Ministry of Hertiage, Sport, Tourism and Culture	Heritage Planning Unit	Team Lead- Heritage (Acting)	401 Bay Street, Suite 1700	Toronto	ON	M7A 0A7	416-660-1027	karla.barboza@ontario.ca
To Whom it May Concern			Ministry of the Environment, Conservation and Parks	Source Protection Programs Branch		40 St.Clair Ave. W., 14th Floor	Toronto	ON	M4V 1M2		sourceprotectionscreening@ontario.ca
To Whom it May Concern			Ministry of the Environment, Conservation and Parks	SAR Ontario							SAROntario@ontario.ca
To Whom it May Concern			Ministry of Natural Resources and Forestry	MNRF Aylmer							MNRF.Ayl.Planners@ontario.ca
MUNICIPAL CONTACTS											
Mayor	Steve	Arnold	St. Clair Township	Elected official	Mayor	1155 Emily Street	Mooretown	ON	N0N 1M0	(519) 381-7440	steve.arnold@county-lambton.on.ca
Deputy Mayor	Steve	Miller	St. Clair Township	Elected official	Deputy Mayor	1155 Emily Street	Mooretown	ON	N0N 1M0	(519) 677-5676	smiller@stclairtownship.ca
	John	Rodey	St. Clair Township	General Government	CAO	1155 Emily Street	Mooretown	ON	N0N 1M0	519-867-2021	jrodey@twp.stclair.on.ca
	Brian	Black	St. Clair Township	General Government	Director of Public Works	1155 Emily Street	Mooretown	ON	N0N 1M0	519-867-2994 x255	bblack@stclairtownship.ca
	Jeff	Baranek	St. Clair Township	Clerk's Department	Clerk	1155 Emily Street	Mooretown	ON	N0N 1M0	519-867-2021	jbaranek@stclairtownship.ca
	Carlie	McClemens	St. Clair Township	Planning and Zoning	Deputy Clerk and Coordinator of Planning	1155 Emily Street	Mooretown	ON	N0N 1M0	(519) 867-2021	cmcclemens@stclairtownship.ca
	Kevin	Marriott	Lambton County	Elected official	Mayor, Township of Enniskillen	789 Broadway Street	Wyoming	ON	N0N 1T0	519-844-2307	kevin.marriott@county-lambton.on.ca
	Ron	Van Horne	Lambton County	General Government	CAO	789 Broadway Street	Wyoming	ON	N0N 1T0	519-845-0801 ext. 5302	ron.vanhorne@county-lambton.on.ca
	Jason	Cole	Lambton County	General Government	General Manager, Infrastructure and Development S	789 Broadway Street	Wyoming	ON	N0N 1T0	519-845-5413	jason.cole@county-lambton.on.ca
	Ben	Puzanov	Lambton County	Planning & Development	Manager of Planning & Development Services	789 Broadway Street	Wyoming	ON	N0N 1T0	519-845-0801 ext. 5342	planning@county-lambton.on.ca
	Matt	Deline	Lambton County	Public Works	Manager, Public Works	789 Broadway Street	Wyoming	ON	N0N 1T0	519-845-0801 ext. 5370	matt.deline@county-lambton.on.ca
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
	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
	Dan	Minkin	Ontario Pipeline Coordinating Committee	Ministry of Heritage Sport Tourism and Culture Inc	Team Lead, Heritage	401 Bay Street	Toronto	ON	M7A 0A7	416-314-7147	dan.minkin@ontario.ca
	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
	Kourosh	Manouchehri	Ontario Pipeline Coordinating Committee	Technical Standards and Safety Authority		345 Carlingview Drive	Toronto	ON	M9W 6N9	416-734-3539	kmanouchehri@tssa.org
	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
	Michelle	Knieriem	Ontario Pipeline Coordinating Committee	Ministry of Municipal Affairs and Housing, Western Municipal Services Office		659 Exeter Road, 2nd Floor	London	ON	N6E 1L3	226-980-8239	Michelle.Knieriem@ontario.ca
	Jason	McCullough	Ontario Pipeline Coordinating Committee	Ministry of Energy, Northern Development and Mi	Senior Advisor, Indigenous Energy Policy Unit	77 Grenville Street, 6th Floor	Toronto	ON	M7A 2C1	416-526-2963	Jason.McCullough@ontario.ca
	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
	Uyen	Ha	Ontario Pipeline Coordinating Committee	Ministry of Government and Consumer Services,	Policy Lead	777 Bay Street, 2nd Fl, Suite 2300	Toronto	ON	M5G 2E5		uyen.ha@ontario.ca
To Whom it May Concern			Ontario Pipeline Coordinating Committee	Ministry of the Environment, Conservation and Parks							eanotification.swregion@ontario.ca
CONSERVATION AUTHORITY											
	Melissa	Deisley	St. Clair Region Conservation Authority	Planning and Regulations	Manager	205 Mill Pond Crescent	Strathroy	ON	N7G 3P9	519-245-3710 Ext. 251	mdeisley@scrca.on.ca
INTEREST GROUPS/OTHER											
	Melina	Damian	Ontario Nature	Communications Coordinator	Communications Coordinator	214 King Street West, Suite 612	Toronto	ON	M5H 3S6		info@ontarionature.org
To Whom it May Concern			Lambton Wildlife Inc.			Box 681	Samia	ON	N7T 7J7		info@lambtonwildlife.com

TITLE	FIRST NAME	SURNAME	ORGANIZATION	POSITION	PHONE NUMBER	ADDRESS	CITY	PROVINCE	POSTAL CODE	E-MAIL
INDIGENOUS COMMUNITIES										
Dr.	Dean	Jacobs	Bkejwanong (Walpole Island) First Nation	Consultation Manager	519-627-1475	117 Tahgahoning, R.R. 3	Wallaceburg	ON	N8A 4K9	Dean.Jacobs@wifn.org
Dear	Janet	Macbeth	Bkejwanong (Walpole Island) First Nation	Project Review Coordinator	519-627-1475 Ext. 101	117 Tahgahoning, R.R. 3	Wallaceburg	ON	N8A 4K9	janet.macbeth@wifn.org
Dear	Sharilyn	Johnston	Aamjiwnaang First Nation	Environment Coordinator	519-336-8411	978 Tashmoo Avenue	Sarnia	ON	N7T 7H5	sjohnston@aamjiwnaang.ca
To Whom it May Concern	Environmental		Aamjiwnaang First Nation	Environment email	519-336-8412	979 Tashmoo Avenue	Sarnia	ON	N7T 7H6	environment@aamjiwnaang.ca
Dear	Valerie	George	Chippewas of Kettle and Stony Point First Nation	Environment Coordinator	519-786-2125	6248 Indian Lane	Lambton County	ON	N0N 1J2	valerie.george@kettlepoint.org
Dear	Clint	Couchie	Chippewas of Kettle and Stony Point First Nation	Band Manager	519-786-2125	6249 Indian Lane	Lambton County	ON	N0N 1J3	clint.couchie@kettlepoint.org
Dear	Fallon	Burch	Chippewas of the Thames	Consultation Coordinator	519-289-2662	328 Chippewa Road, R.R. #1	Munsee	ON	N0L 1Y0	fburch@cottfn.com
To Whom it May Concern	Consultation		Chippewas of the Thames	Consultation email		329 Chippewa Road, R.R. #1	Munsee	ON	N0L 1Y1	consultation@cottfn.com
Dear	Brandon	Doxtator	Oneida Nation of the Thames	Environmental Coordinator		RR2	Southworld	ON	NoL 2G0	environment@oneida.on.ca

APPENDIX B3:
Notification Letters



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



September 24, 2021

«FIRST_NAME» «SURNAME»
«POSITION»
«ORGANIZATION»
«DEPARTMENT»
«ADDRESS»
«CITYTOWN» «PROVINCE» «POSTAL_CODE»
Sent Via Email: «EMail»

Dear «FIRST_NAME» «SURNAME», «TITLE»

Reference: Enbridge Gas Inc. – Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project

Enbridge Gas Inc. (Enbridge Gas) has identified the need to enhance the capacity and deliverability of their existing Enbridge Gas storage operations in Lambton County. The Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project (the Project) will involve drilling a natural gas storage well (TKC 68) and an A-1 observation well (TCV 7), respectively located in the Kimball-Colinville Storage Pool and Coveny Storage Pool – two designated storage areas (DSAs) as defined in s. 36.1(1)(a) of the *Ontario Energy Board Act* (OEB Act).

Project activities at TKC 68 will commence with the construction of a temporary gravel drilling pad that will be approximately 10,000 square meters. Access to the site will be via temporary steel plates. Upon completion of drilling activities, approximately 120 metres of Nominal Pipe Size (NPS) 10-inch lateral pipeline will be constructed to connect the new natural gas storage well to the existing Kimball-Colinville gathering system. A permanent gravel pad of 60 square meters will then be installed around the well.

Project activities at TCV 7 will commence with the construction of a temporary gravel drilling pad that will be approximately 10,000 square meters. Access to the site will be via a new permanent access laneway. Upon completion of drilling activities, a permanent gravel pad of 60 square meters will be constructed around the well.

For more details, please refer to the attached map.

Enbridge Gas has retained Stantec Consulting Ltd. (Stantec) to undertake an Environmental Study of the construction and operation of 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 Fall 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, the Project is currently anticipated to begin April 2022.

September 24, 2021

«FIRST_NAME» «SURNAME»

Page 2 of 2

Reference: Enbridge Gas Inc. – Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project

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 Environmental Study Area.

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

If you have questions or comments regarding the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project, please do not hesitate to contact the undersigned.

Yours truly,

Stantec Consulting Ltd.

Kayla Ginter M.E.S. (Planning), OPPI Candidate
Environmental Planner,
Assessment & Permitting
Mobile: 226-980-5347
Kayla.Ginter@stantec.com

Attachment: Map of Project Area

c. Evan Tomek, Sr. Analyst, Environment, Enbridge Gas



Enbridge Inc
109 Commissioners Road West,
London, ON
N6A4P1

Sharilyn Johnston
Aamjiwnaang First Nation
978 Tashmoo Ave
Sarnia, ON
N7T 7H5

June 7, 2021

Dear Sharilyn,

Re: 2021-2024 Enbridge Gas Storage Well & Reservoir Projects

Enbridge Gas Inc. (Enbridge Gas) is currently conducting a review of its gas storage and reservoir system and has identified the potential need to replace and/or enhance some assets in order to maintain the safe and reliable operation of Enbridge Gas's systems and continue to meet the firm demands of Enbridge Gas's customers.

The following two (2) proposed projects may include all or some of the following:

2022 Storage Enhancement Project

- Involves drilling a storage well, TKC 69, in Kimball-Colinville Storage Pool in May/June 2022.
- Involves the installation of approximately 125 metres of 10" lateral pipeline from TKC 69 to the main Kimball-Colinville gathering pipeline upon completion of drilling activities.

Coveny and Kimball-Colinville Well Drilling Project

- Involves drilling a new injection/withdrawal well (TKC 68) in the Kimball-Colinville Storage Pool in May/June 2022
- TKC 68 will require approximately 120 metres of 10" lateral pipeline to connect to the main Kimball-Colinville gathering line.

Collectively referred to as the "**Projects**".



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London, ON
N6A4P1

The area in which these Projects are to be constructed is rural agricultural and is either owned by Enbridge Gas or Enbridge Gas has the right to enter through a Gas Storage Lease. It is expected that the majority of adverse environmental and/or socio-economic effects will be construction related. These effects are expected to be temporary and transitory. The Projects will also be located underground once construction is complete, further limiting the potential for any long-term effects.

As part of the planning process for each of these Projects, Enbridge Gas has and will retain an external consulting firm to undertake an Environmental Study of the construction and operation of the Project. The Environmental Study as required by the Ontario Energy Board's (OEB) *"Environmental Guidelines for the Location, Construction, and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 7th Edition (2016)"*.

Enbridge Gas' preliminary work on the Projects has identified the following potential authorizations:

Provincial approvals:

- Ontario Energy Board
- Ministry of Natural Resources and Forestry
- Ministry of Environment, Conservation and Parks
- Ministry of Heritage, Sport, Tourism and Culture Industries

Municipal approvals:

- County of Lambton
- Township of St. Clair

Other approvals:

- St. Clair Region Conservation Authority
- Hydro One Networks Inc.

We would like to consult with your community on these proposed Projects. We are interested in your community's feedback, including any suggestions or proposals on avoiding, minimizing or mitigating any potential adverse impacts these Projects may have on your Aboriginal or treaty rights.

Enbridge acknowledges that capacity support may be required to enable you to engage in timely technical reviews of documents, participation in field work associated with the Projects, and to allow for meaningful consultation. Consistent with our approach on all projects, we are



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London, ON
N6A4P1

prepared to provide capacity funding to support your team's engagement in relation to the Projects.

Enbridge Gas has been delegated the procedural aspects for consultation by the Ministry of Energy on behalf of Ontario. Ministry officials are also available should you wish to contact them directly with any questions or concerns. Please contact:

For 2021/2022 Storage Enhancement Project Part 2,

Rosalind Ashe, Senior Advisor
Indigenous Energy Policy, Ministry of Energy, Northern Development and Mines
rosalind.ashe@ontario.ca

For Coveny and Kimball-Colinville Well Drilling Project,

Jonathon Wilkinson, Senior Advisor
Indigenous Energy Policy, Ministry of Energy, Northern Development and Mines
Jonathon.Wilkinson@ontario.ca

We would like to set up a meeting to discuss these Projects with you to provide you with an opportunity to express any questions or concerns you have. Please feel free to contact me at lauren.whitwham@enbridge.com or 519-852-3474 so we can set up a time to meet. You may also provide me with any feedback you may have regarding the Projects in writing by July 7, 2021, if possible.

Many thanks,

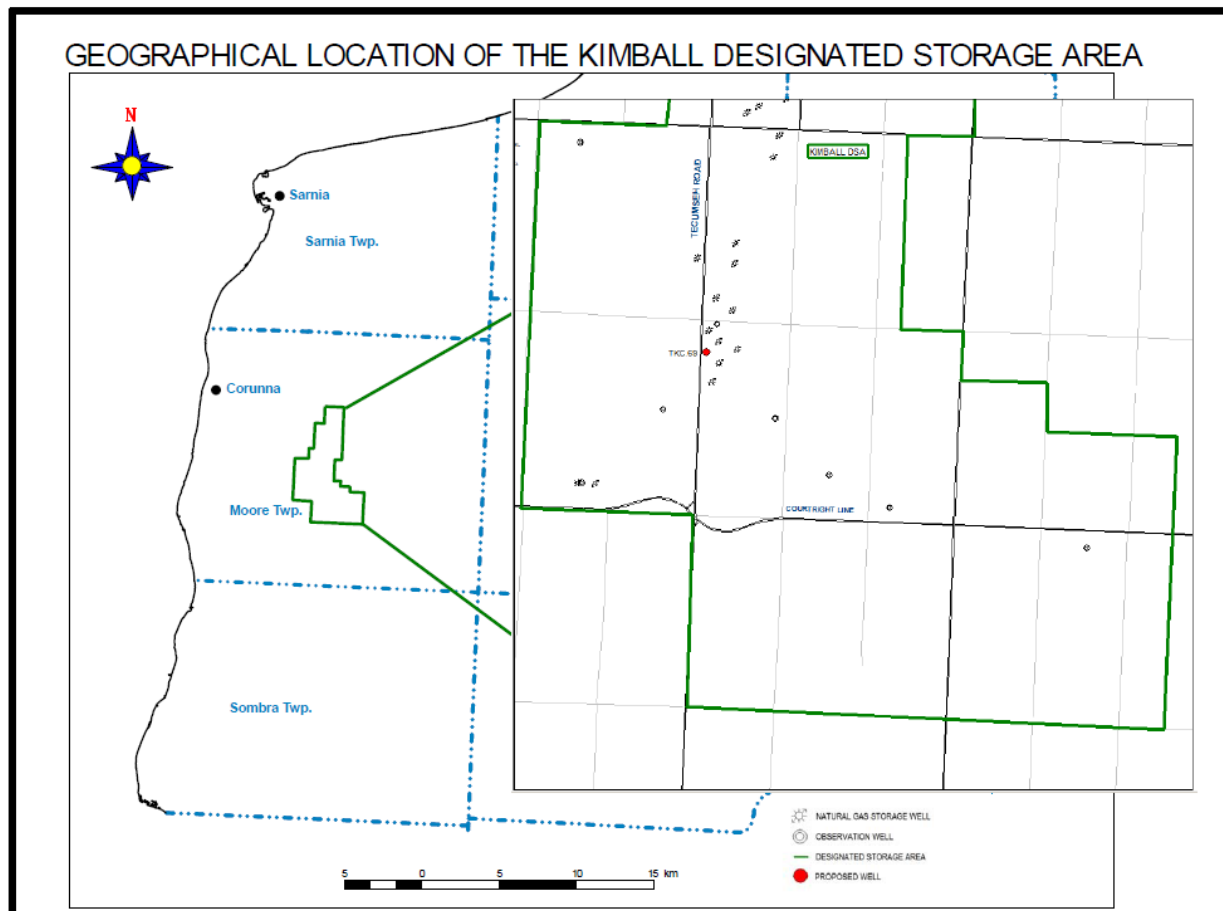
A handwritten signature in black ink, appearing to read 'Lauren Whitwham'.

Lauren Whitwham
Senior Advisor, Community & Indigenous Engagement, Eastern Region
Enbridge Inc.
519-852-3474
Lauren.whitwham@enbridge.com



Enbridge Inc
109 Commissioners Road West,
London, ON
N6A4P1

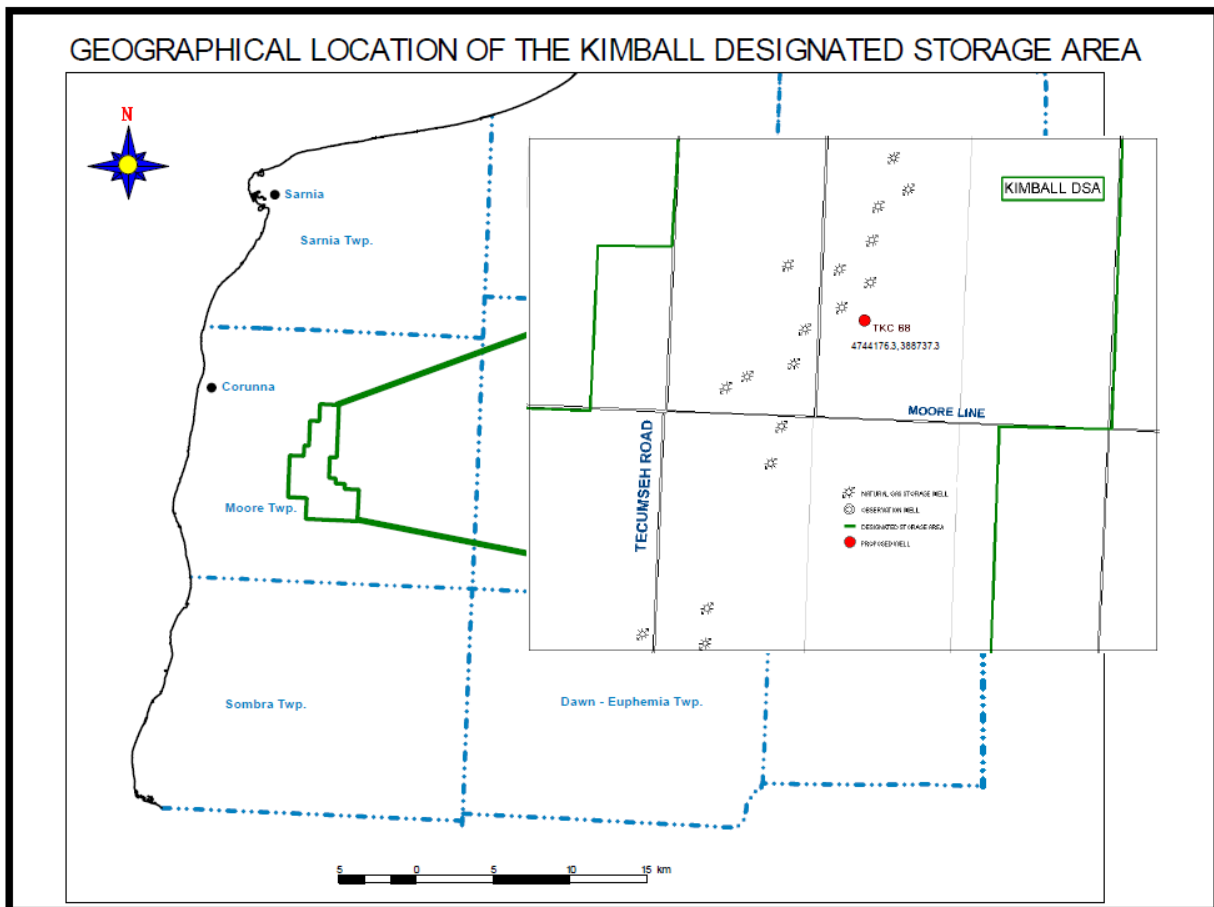
2022 Storage Enhancement Project





Enbridge Inc
109 Commissioners Road West,
London, ON
N6A4P1

Coveny and Kimball-Colinville Well Drilling Project





September 27, 2021

«TITLE» «FIRST_NAME» «SURNAME»
«POSITION»
«ORGANIZATION»
«ADDRESS»
«CITY» «PROVINCE» «POSTAL_CODE»

**ENBRIDGE GAS INC – PROPOSED COVENY AND KIMBALL-COLINVILLE WELL DRILLING
PROJECT, NOTICE OF STUDY COMMENCEMENT**

Dear «TITLE» «SURNAME»,

I am writing to advise you of an upcoming project in Lambton County and to begin engagement on the proposed work. Enbridge Gas Inc. (Enbridge Gas) has identified the need to enhance the capacity and deliverability of their existing Enbridge Gas storage operations.

The *Coveny and Kimball-Colinville Well Drilling Project (the Project)* will involve drilling a natural gas storage well (TKC 68) located in the Kimball-Colinville Storage Pool – a designated storage area (DSA) as defined in s. 36.1(1)(a) of the *Ontario Energy Board Act* (OEB Act).

Project activities at TKC 68 will commence with the construction of a temporary gravel drilling pad that will be approximately 10,000 square meters. Access to the site will be via temporary steel plates. Upon completion of drilling activities, approximately 120 metres of Nominal Pipe Size (NPS) 10-inch lateral pipeline will be constructed to connect the new natural gas storage well to the existing Kimball-Colinville gathering system. A permanent gravel pad of 60 square meters will then be installed around the well.

Attached please find a map detailing the Project location.

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

The Study will 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.

It is anticipated that the Environmental Report for the study will be completed in Fall 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, the Project is currently anticipated to begin April 2022.

As an Indigenous community with a potential interest in the study area, we are inviting «ORGANIZATION» 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 study area and information about potential effects that the project may have on asserted or established Aboriginal and treaty rights. Stantec is presently compiling an environmental, socio-economic, and

September 27, 2021

«TITLE» «FIRST_NAME» «SURNAME»

Page 2 of 2

Reference: ENBRIDGE GAS INC – PROPOSED COVENY AND KIMBALL-COLINVILLE WELL DRILLING PROJECT, NOTICE OF STUDY COMMENCEMENT

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 «ORGANIZATION» 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.

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,

Lauren Whitwham

ENBRIDGE GAS INC.

Sr. Advisor, Community & Indigenous Engagement

Public Affairs and Communications

519-852-3474

Lauren.Whitwham@enbridge.com

Attachment: Map of Project Area

- c. Evan Tomek, Sr. Analyst, Environment, Enbridge Gas
- Mark Knight, Project Manager, Stantec Consulting Ltd.

APPENDIX B4:
Project Correspondence



Asha Patel
Technical Manager
Regulatory Affairs

tel. 416-495-5642
EGIRegulatoryProceedings@enbridge.com

Enbridge Gas Inc.
500 Consumers Road
North York, Ontario M2J 1P8
Canada

April 8, 2021

VIA EMAIL – dan.delaquis@ontario.ca

Ministry of Energy, Northern Development and Mines
Dan Delaquis
Manager (Acting), Indigenous Energy Policy
Unit 77 Grenville St.
6th Floor
Toronto, ON
M7A 1B3

Dear Mr. Delaquis:

Re: Coveny and Kimball-Colinville Well Drilling Project

The *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario 7th Edition 2016* (Guidelines) issued by the Ontario Energy Board (Board) indicate that a project applicant shall provide the Ministry of Energy, Northern Development and Mines (Ministry) with a description of a project, in the planning process, such that the Ministry can determine if there are any Duty to Consult requirements for the project.

The purpose of this letter is to inform the Ministry that Enbridge Gas Inc. (Enbridge Gas) intends to drill two wells (Project) in existing Designated Storage Areas (DSA).

The Project involves:

- Drill a new A-1 observation well (TCV 7) in the Coveny Storage Pool;
- Drill a new natural gas storage well (TKC 68) in the Kimball-Colinville Storage Pool and install a new lateral pipeline from the proposed well to the existing gathering pipeline.

Enbridge Gas will be filing with the Board a request for a favourable report from the Board to the Ministry of Natural Resources and Forestry (MNR) and a leave to construct in support of the Project. Enbridge Gas is therefore contacting the Ministry to determine whether the Project triggers the Duty to Consult.

Attachment 1 contains a description of the Project's characteristics and its location for the Ministry's review and to assist it with its determination as to whether it will delegate the procedural aspects of the Duty to Consult to Enbridge Gas. While work on the Project is still in its early stages, Enbridge Gas would be pleased to discuss the Project with you should you have any questions.

Regards,

Asha Patel, CPA, CA
Technical Manager, Regulatory Applications
Enbridge Gas Inc.
416-495-5642

Attachment 1: Coveny and Kimball-Colinville Well Drilling Project

1.0 Project Summary

Enbridge Gas is proposing to drill two new wells – one observation well and one natural gas storage well.

An A-1 observation well (TCV 7) will be drilled in the Coveny DSA at the following UTM coordinates: N 4 729 560.0; E 388 472.6. The well is being drilled to monitor the gas content and pressure in the underground storage formations, which will assist in the continued safe and reliable operation of Enbridge Gas's storage facilities.

A natural gas storage well (TKC 68) will be drilled in the Kimball-Colinville DSA at the following UTM coordinates: N 4 744 176.3; E 388 737.3. The well is required to replace deliverability lost through the abandonment of five natural gas storage wells in the Kimball-Colinville DSA. Reestablishing the lost deliverability will assist with the continued safe and reliable distribution of natural gas to existing and future Enbridge Gas customers.

Both of the aforementioned storage pools are part of Enbridge Gas's storage operations. Each of the storage pools is a DSA as defined in the *Ontario Energy Board Act, 1998*.

It is proposed that the drilling of well TCV 7 and well TKC 68 is expected to occur from April 2022 to September 2022.

Enbridge Gas plans to file an application with the Ontario Energy Board (Board) which will request a favourable report from the Board to the Ministry of Natural Resources and Forestry (MNRF) for the drilling of wells TCV 7 and well TKC 68 and for a leave to construct to install approximately 120 metres of NPS 10 lateral pipeline from TKC 68 to the existing Kimball-Colinville gathering pipeline.

Enbridge Gas will ensure that it has fulfilled all of the relevant requirements of CSA Z341, as they relate to the new wells, to the satisfaction of the MNRF.

Drilling of well TCV 7, will occur on previously disturbed lands owned by Enbridge Gas. These lands are leased to a tenant farmer. Well TKC 68 will be drilled on third party lands that Enbridge Gas has the right to enter into and upon for the purposes of its natural gas storage operations. Once the well is drilled, a lateral pipeline will be installed from the well to the Kimball-Colinville Storage Pool gathering system. Temporary gravel pads will be installed for the drilling of both wells and each pad is expected to occupy 8100 square metres or 0.0081 square kilometers. Each final well site is expected to measure approximately 60 square metres or 0.00006 square kilometers.

Figure 1 below shows the geographical location of the Coveny DSA and the proposed location of well TCV 7. Figure 2 shows the geographical location of the Kimball-Colinville DSA and the proposed location of well TKC 68.

2.0 Project Information

Enbridge Gas currently operates approximately 280 billion cubic feet of natural gas storage in 35 DSAs. Thirty-two of the DSAs are in Lambton County, one in Chatham-Kent, one in Huron County and one in the Niagara region. The operation includes 266 injection/delivery wells and 96 observation wells.

The Coveny Storage Pool is located in Lambton County and has been in operation since 1997. There are 4 natural gas storage wells and 2 observation wells in the Coveny DSA. The Kimball-Colinville Storage Pool is located in Lambton County and has been in operation since 1965. There are 33 natural gas storage wells, 10 observation wells and 1 suspended well in the Kimball-Colinville DSA.

The Project will allow Enbridge Gas to monitor the gas content and pressure in the underground storage area and to restore deliverability lost through the abandonment of natural gas storage wells, all of which will assist with the continued safe and reliable delivery of natural gas to existing and future Enbridge Gas customers

3.0 Authorizations and Recommendations Required

An Environmental Report (ER) will be completed for the Project. Enbridge Gas either owns the lands within or has Gas Storage Lease Agreements and Petroleum & Natural Gas Lease Agreements in place for all of the DSAs. Temporary gravel pads will be installed for the drilling of the wells. Upon completion of drilling activities, the pad will be reduced and a permanent well site will be established.

The ER will be prepared using the Board's *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines in Ontario, 7th Edition (2016)* (Guidelines). The ER will identify potential authorizations required. Enbridge Gas's preliminary work on the Project has identified the following potential authorizations:

Provincial approvals:

- Ontario Energy Board
- Ministry of Natural Resources and Forestry
- Ministry of Heritage, Sport, Tourism and Cultural Industries
- Ministry of the Environment, Conservation and Parks

Municipal approvals:

- Township of St. Clair
- County of Lambton

Other approvals:

- St. Clair Region Conservation Authority
- Hydro One Networks Inc.

Other authorizations, notifications, permits and/or approvals may be required in addition to those identified above.

4.0 Project Activities

Planning and design activities for the Project commenced in 2021. Pursuant to the Guidelines an ER will be prepared and archaeological studies will be completed where and as required.

The drilling of the wells will be planned in accordance with the requirements of the latest addition of CSA Z341 – Storage of Hydrocarbons in Underground Formations. Pursuant to the requirements of CSA Z341 the following studies and reviews will be completed to support the Project:

- An assessment of neighbouring activities to determine the impact of the Project on: a) wells within 1 km, b) operations within 5 km, and c) the integrity of all wells penetrating the storage zone; and
- A “what if” analysis of hazards and operability (HAZOP) for each of the storage pools.

Upon receiving a drilling license from the MNRF, Enbridge Gas will commence operations to drill well TCV 7 and well TKC 68 in the second and third quarters of 2022.

A copy of the application filed with the Board will be provided to all landowners in the Coveny DSA and the Kimball-Colinville DSA.

5.0 Potential Environmental Effects and Mitigation Measures

The ER will assess physical, natural and socio-economic features potentially impacted by construction activities. Mitigation measures will be recommended as part of the ER to minimize potential adverse effects to the environment. It is expected that the majority of adverse environmental and/or socio-economic effects will be construction related. These effects are expected to be temporary and transitory.

Mitigation measures recommended in the ER will be followed in conjunction with Enbridge Gas's Construction and Maintenance Manual. In addition, Enbridge Gas will use professional judgement, past experience, industry best practices and any additional feedback received through the consultation process when constructing the Project.

6.0 Project Benefits

The installation of the observation well will allow Enbridge Gas to monitor the gas content and pressure in the underground storage area and the installation of the natural gas storage well will allow Enbridge Gas to re-establish deliverability lost through the abandonment of natural gas storage wells, all of which will assist with the continued safe and reliable delivery of natural gas to our existing and future customers .

7.0 Contact Information

Regulatory Affairs:

Asha Patel

asha.patel@enbridge.com

416-495-5642

Technical / MNRF Contact:

Kathy McConnell

kathy.mcconnell@enbridge.com

519-862-6032

Indigenous Affairs:

Lauren Whitwham

lauren.whitwham@enbridge.com

519-667-4100 x5153545

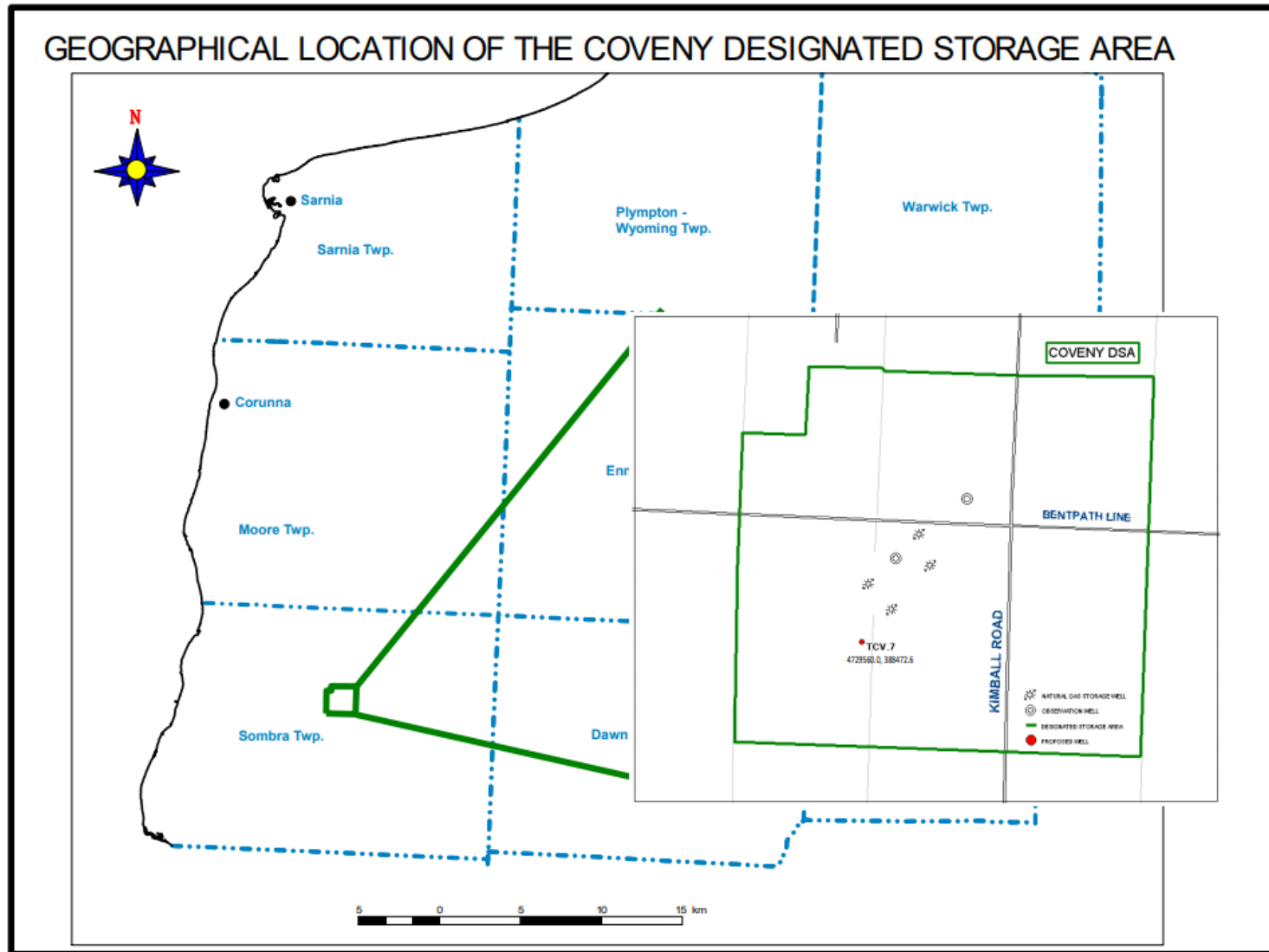
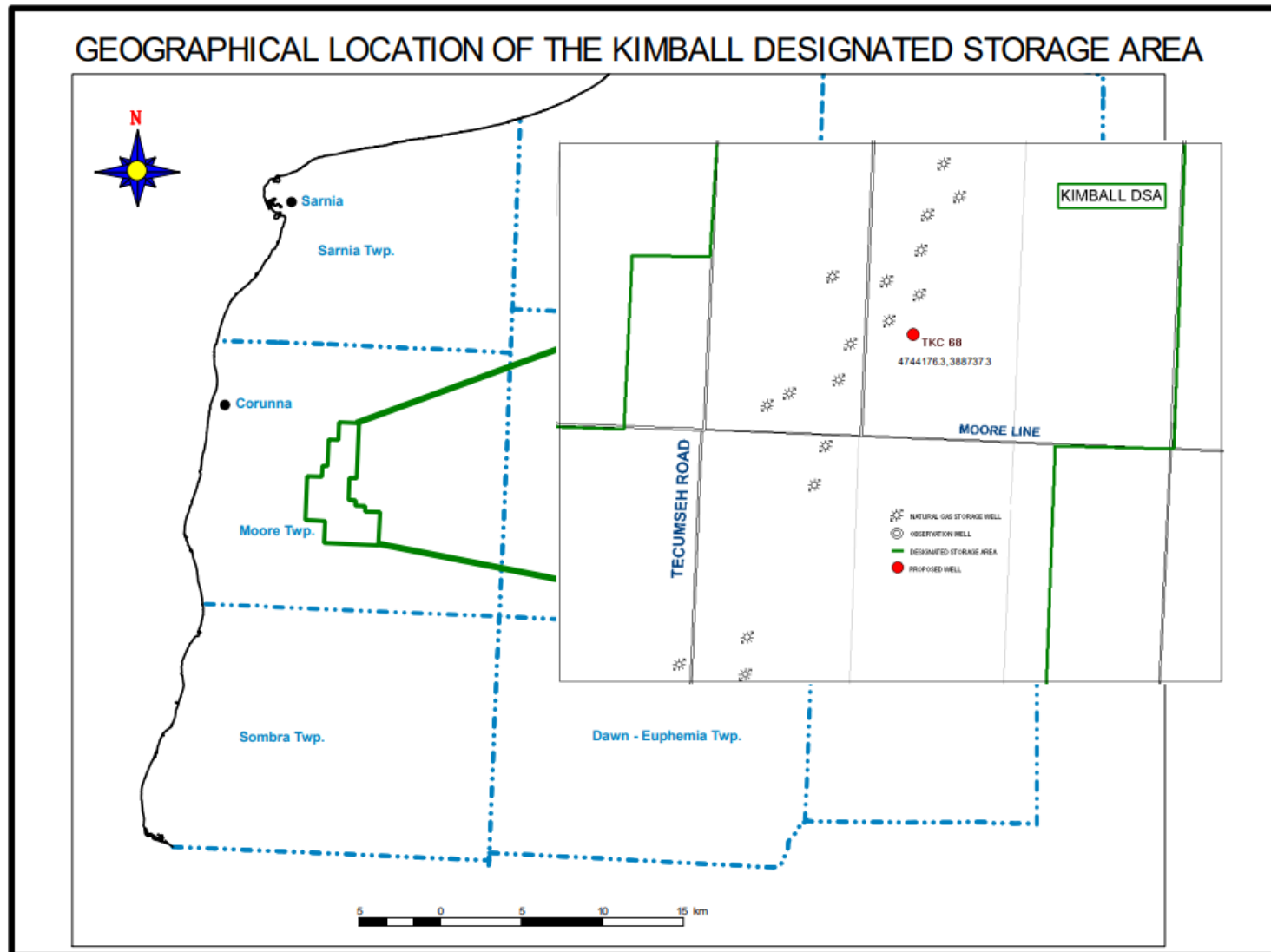
Figure 1: Coveny DSA & Proposed Location of Well TCV 7

Figure 2: Kimball-Colinville DSA & Proposed Location of Well TKC 68



**Ministry of Energy, Northern
Development and Mines**

**Ministère de l'Énergie, du Développement du Nord
et des Mines**



Energy Networks & Indigenous
Policy Branch

Direction Générale des Réseaux Énergétiques et des
Politiques Autochtones

77 Grenville Street
6th Floor
Toronto ON M7A 2C1

77, rue Grenville
6e étage
Toronto ON M7A 2C1

VIA EMAIL

June 1, 2021

Asha Patel
Technical Manager, Regulatory Affairs
Enbridge Gas Inc.
500 Consumers Road
North York, ON.
M2J 1P8

Re: Coveny and Kimball-Colinville Well Drilling Project

Dear Asha Patel:

Thank you for your e-mail with attached letter dated May 5, 2021 notifying the Ministry of Energy, Northern Development and Mines (ENDM) of Enbridge Gas Inc.'s (Enbridge) intention to apply to the Ontario Energy Board (OEB) for Leave to Construct for the Coveny and Kimball-Colinville Well Drilling Project (the Project).

I understand that Enbridge is planning to drill 2 wells (an A-1 observation well (TCV 7) and a natural gas storage well (TKC 68)). The project will also include the installation of a 120m NPS 10 lateral pipeline with a maximum operating pressure of 9,310 kPag (above the current LTC threshold of 2,000 kPag), this pipeline will connect the natural gas storage well (TKC 68) to the existing Kimball-Colinville gathering pipeline.

On behalf of the Government of Ontario (the Crown), ENDM has reviewed the information provided by Enbridge with respect to the Project and assessed it against the Crown's current understanding of the interests and rights of Aboriginal communities who hold or claim Aboriginal or treaty rights protected under Section 35 of Canada's *Constitution Act 1982* (Indigenous Communities) in the area. In doing so, ENDM has determined that the Project may have the potential to affect such Indigenous communities.

The Crown has a constitutional duty to consult and, where appropriate, accommodate Indigenous communities when the Crown contemplates conduct that might adversely impact established or asserted Aboriginal or Treaty rights. These consultations are in addition to consultation imposed by statute.

While the legal responsibility to meet the duty to consult lies with the Crown, the Crown may delegate the day-to-day, procedural aspects of consultation to project proponents. Such a delegation by the Crown to Proponents is routine practice for ENDM.

I am writing to advise you that on behalf of the Crown, ENDM is delegating the procedural aspects of consultation in respect of the Project to Enbridge (Proponent) through this letter. ENDM expects that the Proponent will undertake the procedural aspects of consultation with respect to any regulated requirements for the proposed Project. The Crown will fulfill the substantive aspects of consultation and retain oversight over all aspects of the process for fulfilling the Crown's duty.

Please see the appendix for information on the roles and responsibilities of both the Crown and the Proponent.

Based on the Crown's assessment of First Nation and Métis community rights and potential project impacts, the following Indigenous communities should 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.

Community	Mailing Address
Aamjiwnaang First Nation	978 Tashmoo Avenue Sarnia, ON N7T 7H5 T: (519) 336-8410 F: (519) 336-0382 Web: Aamjiwnaang
Bkejwanong (Walpole Island First Nation)	RR 3, Wallaceburg, ON N8A 4K9 T: (519) 627-1481 F: (519) 627-0440 Web: Walpole Island
Chippewas of the Thames First Nation	RR 1, Muncey, ON N0L 1Y0 T: (519) 289-5555 F: (519) 289-2230 Web: Chippewas of the Thames First Nation
Chippewas of Kettle and Stony Point First Nation	6247 Indian Lane Kettle and Stony Point First Nation, ON N0N 1J1 T: (519) 786-2125 F: (519) 786-2108 Web: Chippewas of Kettle and Stony Point
Oneida Nation of the Thames	RR 2, Southwold, ON N0L 2G0 T: (519) 652-3244 F: (519) 652-9287 Web: Oneida Nation of the Thames

This rights-based consultation list is based on information that is subject to change. Consultation is ongoing throughout the duration of the project, including project development and design, consultation, approvals, construction, operation and decommissioning. First Nations and Métis communities may make new rights assertions at any time, and further project related developments can occur that may require additional First Nation and/or Métis communities to be notified and/or consulted.

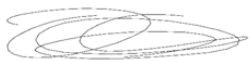
If you become aware of potential rights impacts on Indigenous communities that are not listed above at any stage of project, please bring this to the attention of ENDM with any supporting information regarding the claim at your earliest convenience.

Acknowledgement

By accepting this letter, the Proponent acknowledges this Crown delegation and the procedural consultation responsibilities enumerated in the appendix. If you have any questions about this request, you may contact Jonathon Wilkinson (jonathon.wilkinson@ontario.ca).

I trust that this information provides clarity and direction regarding the respective roles of the Crown and Enbridge. If you have any questions about this letter or require any additional information, please contact me directly.

Sincerely,



Dan Delaquis
Manager, Indigenous Energy Policy

c: Ontario Pipeline Coordinating Committee (OPCC)

APPENDIX: PROCEDURAL CONSULTATION

Roles and Responsibilities Delegated to the Proponent

On behalf of the Crown, please be advised that your responsibilities as Project Proponent for this Project include:

- providing notice and information about the Project to Indigenous communities, with sufficient detail and at a stage in the process that allows the communities to prepare their views on the Project and, if appropriate, for changes to be made to the Project. This can include:
 - accurate, complete and plain language information including a detailed description of the nature and scope of the Project and translations into Aboriginal languages where appropriate;
 - maps of the Project location and any other affected area(s);
 - information about the potential negative effects of the Project on the environment, including their severity, geographic scope and likely duration. This can include, but is not limited to, effects on ecologically sensitive areas, water bodies, wetlands, forests or the habitat of species at risk and habitat corridors;
 - a description of other provincial or federal approvals that may be required for the Project to proceed;
 - whether the Project is on privately owned or Crown controlled land;
 - any information the Proponent may have on the potential effects of the Project, including particularly any likely adverse impacts on established or asserted Aboriginal or treaty rights;
 - a written request asking the Indigenous community to provide in writing or through a face-to-face meeting:
 - any information available to them that should be considered when preparing the Project documentation;
 - any information the community may have about any potential adverse impacts on their Aboriginal or treaty rights; and
 - any suggested measures for avoiding, minimizing or mitigating potential adverse impacts;
 - information about how information provided by the Indigenous community as part of the consultation process will be collected, stored, used, and shared for their approval;
 - identification of any mechanisms that will be applied to avoid, minimize or mitigate potential adverse impacts;
 - identification of a requested timeline for response from the community and the anticipated timeline for meeting Project milestones following each notification;
 - an indication of the Proponent's availability to discuss the process and provide further information about the Project;
 - the Proponent's contact information; and
 - any additional information that might be helpful to the community;

- following up, as necessary, with Indigenous communities to ensure they received Project notices and information and are aware of the opportunity to comment, raise questions or concerns and identify potential adverse impacts on their established or asserted rights;
- gathering information about how the Project may adversely affect Aboriginal or treaty rights;
- bearing the reasonable costs associated with the procedural aspects of consultation (paying for meeting costs, making technical support available, etc.) and considering reasonable requests by communities for capacity funding to assist in participating in the consultation process;
- considering and responding to comments and concerns raised by Indigenous communities and answering questions about the Project and its potential impacts on Aboriginal or treaty rights;
- as appropriate, discussing and implementing changes to the Project in response to concerns raised by Indigenous communities. This could include modifying the Project to avoid or minimize an impact on an Aboriginal or treaty right (e.g. altering the season when construction will occur to avoid interference with mating or migratory patterns of wildlife); and
- informing Indigenous communities about how their concerns were taken into consideration and whether the Project proposal was altered in response. It is considered a best practice to provide the Indigenous community with a copy of the consultation record as part of this step for verification.

If you are unclear about the nature of a concern raised by an Indigenous community, you should seek clarification and further details from the community, provide opportunities to listen to community concerns and discuss options, and clarify any issues that fall outside the scope of the consultation process. These steps should be taken to ensure that the consultation process is meaningful and that concerns are heard and, where possible, addressed.

You can also seek guidance from the Crown at any time. It is recommended that you contact the Crown if you are unsure about how to deal with a concern raised by an Indigenous community, particularly if the concern relates to a potential adverse impact on established or asserted Aboriginal or treaty rights.

The consultation process must maintain sufficient flexibility to respond to new information, and we request that you make all reasonable efforts to build positive relationships with all Indigenous communities potentially affected by the Project. If a community is unresponsive to efforts to notify and consult, you should nonetheless make attempts to update the community on the progress of the Project, the environmental assessment (if applicable) and other regulatory approvals.

If you reach a business arrangement with an Indigenous community that may affect or relate to the Crown's duty to consult, we ask that that Crown be advised of those aspects of such an arrangement that may relate to or affect the Crown's consultation obligations, and that the community itself be apprised of the Proponent's intent to so-appraise the Crown. Whether or not any such business arrangements may be reached with any community, the Crown expects the

Proponent to fulfill all of its delegated procedural consultation responsibilities to the satisfaction of the Crown.

If the Crown considers that there are outstanding issues related to consultation, the Crown may directly undertake additional consultation with Indigenous communities, which could result in delays to the Project. The Crown reserves the right to provide further instructions or add communities throughout the consultation process.

Roles and responsibilities assumed directly by the Crown

The role of the Crown in fulfilling any duty to consult and accommodate in relation to this Project includes:

- identifying for the Proponent, and updating as appropriate, the Indigenous communities to consult for the purposes of fulfillment of the Crown duty;
- carrying out, from time to time, any necessary assessment of the extent of consultation or, where appropriate, accommodation, required for the project to proceed;
- supervising the aspects of the consultation process delegated to the Proponent;
- determining in the course of Project approvals whether the consultation of Indigenous communities was sufficient;
- determining in the course of Project approvals whether accommodation of Indigenous communities, if required, is appropriate and sufficient.

Consultation Record

It is important to ensure that all consultation activities undertaken with Indigenous communities are fully documented. This includes all attempts to notify or consult the community, all interactions with and feedback from the community, and all efforts to respond to community concerns. Crown regulators require a complete consultation record in order to assess whether Aboriginal consultation and any necessary accommodation is sufficient for the Project to receive Ontario government approvals. The consultation record should include, but not be limited to, the following:

- a list of the identified Indigenous communities that were contacted;
- evidence that notices and Project information were distributed to, and received by, the Indigenous communities (via courier slips, follow up phone calls, etc.). Where a community has been non-responsive to multiple efforts to contact the community, a record of such multiple attempts and the responses or lack thereof.
- a written summary of consultations with Indigenous communities and appended documentation such as copies of notices, any meeting summaries or notes including where the meeting took place and who attended, and any other correspondence (e.g., letters and electronic communications sent and received, dates and records of all phone calls);
- responses and information provided by Indigenous communities during the consultation process. This includes information on Aboriginal or treaty rights, traditional lands, claims, or cultural heritage features and information on potential adverse impacts on such

Aboriginal or treaty rights and measures for avoiding, minimizing or mitigating potential adverse impacts to those rights; and

- a summary of the rights/concerns, and potential adverse impacts on Aboriginal or treaty rights or on sites of cultural significance (e.g. burial grounds, archaeological sites), identified by Indigenous communities; how comments or concerns were considered or addressed; and any changes to the Project as a result of consultation, such as:
 - changing the Project scope or design;
 - changing the timing of proposed activities;
 - minimizing or altering the site footprint or location of the proposed activity;
 - avoiding impacts to the Aboriginal interest;
 - environmental monitoring; and
 - other mitigation strategies.

As part of its oversight role, the Crown may, at any time during the consultation and approvals stage of the Project, request records from the Proponent relating to consultations with Indigenous communities. Any records provided to the Crown will be subject to the *Freedom of Information and Protection of Privacy Act*, however, may be exempted from disclosure under section 15.1 (Relations with Aboriginal communities) of the Act. Additionally, please note that the information provided to the Crown may also be subject to disclosure where required under any other applicable laws.

The contents of what will make up the consultation record should be shared at the onset with the Indigenous communities consulted with and their permission should be obtained. It is considered a best practice to share the record with the Indigenous community prior to finalizing it to ensure it is a robust and accurate record of the consultation process.

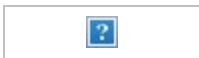
From: [Gasser, Matthew](#)
To: [Ginter, Kayla](#)
Subject: FW: Enbridge Gas Inc. – Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project
Date: Tuesday, September 28, 2021 9:51:36 AM

Matthew Gasser BES

Environmental Consultant

Matthew.Gasser@stantec.com

Stantec
300W-675 Cochrane Drive
Markham ON L3R 0B8



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Please consider the environment before printing this email.

From: Species at Risk (MECP) <SAROntario@ontario.ca>
Sent: Friday, September 24, 2021 2:19 PM
To: Gasser, Matthew <Matthew.Gasser@stantec.com>
Subject: Automatic reply: Enbridge Gas Inc. – Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project

Thank you for your inquiry to the Permissions and Compliance team, Species at Risk Branch, Ministry of the Environment, Conservation and Parks.

What's New?

- The Ministry of the Environment, Conservation and Parks (MECP) has responsibility for the administration of the Ontario Endangered Species Act (ESA). In MECP, work associated with ESA authorizations has been centralized from Ministry of Natural Resources and Forestry district offices into one Permissions and Compliance team within the new Species at Risk Branch in MECP.

What Next?

- Your email is being reviewed by branch staff to determine the nature of your inquiry or submission. Your inquiry or submission will then be actioned to someone from our team for follow up as required.
- We strive to follow up with a response to your inquiry within 15 business days to confirm that your submission has been actioned out and to provide contact

information.

Do you think you may need an ESA permit or authorization?

- Please visit <https://www.ontario.ca/page/species-risk> to learn more about protecting and recovering species at risk, then navigate to the Resources and Permits section, including [Register or Get a Permit](#) for more information about permits and authorizations under the ESA.
- You only need an authorization under the ESA (e.g. a permit or other type of authorization) if your work is going to contravene the ESA (e.g. if the activity you are proposing is going to kill, harm or harass a species at risk or damage or destroy their habitat). If you are able to undertake your work in a manner that does not contravene the ESA, that is what we call “avoidance” of impacts to species at risk or their habitat and it is the ideal scenario for clients and the species-the species aren’t adversely impacted, and you don’t need an authorization.

Do you want to know if any species at risk are at, or near, your project site? Do you need help determining if you need an ESA permit or authorization?

- We have developed a guide to help clients work through the preliminary screening process, including providing advice to clients on how they can gather information you have requested from publicly available information sources. The guide provides advice on how you can determine if any species at risk are likely to exist at your site. If you are seeking information regarding species at risk likely to occur at or near your site, please send an email to sarontario@ontario.ca and include “request for preliminary screening guide” in the subject line. To provide the most efficient service, it is recommended clients read this guide and explore applicable information sources prior to contacting sarontario@ontario.ca to begin discussions with the Permissions and Compliance team about your proposed project.

Do you want to report a suspected violation of the ESA?

- Please call the MECP Tips/Pollution Hotline at 1-866-663-8477 and provide the details requested. Someone may follow up with you directly to request additional information. We may not be able to follow up with you to provide you an update on the status of your tip as the status of any ongoing inspections or investigations is confidential until resolved.

We also receive a high volume of inquiries related to Butternut (an endangered tree) to this email address. The following information can assist you if you have some of the more common questions regarding the ESA and impacts to Butternut.

Do you think you may need an ESA permit or authorization to cut down a Butternut tree?

1. If a Butternut tree has been identified, a Butternut Health Assessment will need

to be completed to assess the health of the tree in accordance with the document titled [Butternut Assessment Guidelines: Assessment of Butternut Tree Health for the Purposes of the Endangered Species Act, 2007](#). This will determine if the tree is Category 1, 2 or 3.

2. Please note that Section 4.2 (Timing of Assessment) on page 10 of the Butternut Assessment Guidelines states that “A complete and accurate assessment of a Butternut tree can only be conducted during the leaf-on season.” It also notes that “For the purposes of the ESA, an assessment will be considered to have been conducted during the leaf-on season if it was conducted between the dates of May 15 and August 31.” For this reason, a Butternut Health Assessment should not be conducted until May 15 in order to get an accurate assessment of the live crown.
3. Once a Butternut Health Assessment has been completed and submitted to the MECP and 30 days have elapsed, ESA requirements can be identified as per below:
 1. If a BHA identifies a tree as a hybrid, no authorization under the ESA is required to remove the tree, as it is not a pure Butternut and not protected under the ESA.
 2. If a BHA identifies a tree as a Category 1 tree, no authorization under the ESA is required to remove the tree, as it is affected by Butternut canker (a fungal disease) to such an advanced degree that retaining the tree would not support the protection or recovery of Butternuts in the area.
 3. If a BHA identifies a tree as a Category 2 tree, Registration is enabled under [section 23.7 of the Ontario Regulation 242/08](#) so long as all requirements of the Regulation are met.
 4. If a BHA identifies a tree as a Category 3 tree, then a [17\(2\)\(c\) Permit](#) is likely required.

If you are proposing to rely on section 23.7 of the Regulation 242/08 for the removal of Category 1 trees or hybrids, please note that you are eligible to do so 30 days after you have submitted your BHA to MECP at SAROntario@ontario.ca unless the MECP has indicated otherwise prior to the end of the 30 day period.

If you are proposing to rely on section 23.7 of the Regulation 242/08 for the removal of a maximum of 10 Category 2 (retainable) trees, after the 30 days you must register a Notice of Impact with the [ESA Registry](#), and follow additional rules. Once you have registered and received a reply in regards to your Notice of Impact, you may remove up to 10 Category 2 trees.

Are you submitting a Butternut Health Assessment?

1. Please submit your Butternut Health Assessment Forms

to sarontario@ontario.ca. In the subject line, clearly indicate that the email contains a BHA and the municipality within which the BHA was conducted. Once received, the submission will be triaged and actioned.

Did you submit a BHA assessment where Category 1, 2 or hybrid trees are impacted?

2. If after the 30 days, you have not received a response from MECP, you may remove Category 1, 2 or hybrid trees so long as all requirements of the Regulation in regards to Category 2 trees are met.

Did you recently see a species at risk?

- Please visit <https://www.ontario.ca/page/report-rare-species-animals-and-plants> for information on how to report a species at risk sighting.

Would you like to learn more about species at risk and the ESA and its related policies?

- Please visit <https://www.ontario.ca/page/species-risk>.
- Policies under the ESA, ministry-endorsed survey protocols and a number of best-management practices related to how you can avoid or minimize impacts to species at risk can be found online at <https://www.ontario.ca/page/species-risk-guides-and-resources>.
- General inquiries related to the ESA or species at risk can be directed to SAROntario@ontario.ca

From: [Ginter, Kayla](#)
To: [Barboza, Karla \(MHSTCI\)](#)
Cc: [Minkin, Dan \(MHSTCI\)](#); [Harvey, Joseph \(MHSTCI\)](#); [Knight, Mark](#); [Gasser, Matthew](#)
Subject: RE: Enbridge Gas Inc. – Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project
Date: Monday, September 27, 2021 9:14:00 AM

Good Morning Karla,

Thank you for your email. We will have the contact list updated accordingly.

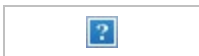
Thank you,

Kayla Ginter M.ES. (Planning), OPPI Candidate
Environmental Coordinator, Assessment and Permitting

Direct: 226-980-5347

Kayla.Ginter@stantec.com

Stantec
300W-675 Cochrane Drive
Markham ON L3R 0B8



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From: Barboza, Karla (MHSTCI) <Karla.Barboza@ontario.ca>
Sent: Monday, September 27, 2021 8:12 AM
To: Gasser, Matthew <Matthew.Gasser@stantec.com>
Cc: Ginter, Kayla <Kayla.Ginter@stantec.com>; Knight, Mark <Mark.Knight@stantec.com>; Minkin, Dan (MHSTCI) <dan.minkin@ontario.ca>; Harvey, Joseph (MHSTCI) <Joseph.Harvey@ontario.ca>
Subject: RE: Enbridge Gas Inc. – Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project

Hi Matthew,

Thanks for sending the Notice of Study Commencement for the above -referenced project to the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI).

Could you please update your contact list for this project to include the following:

- Karla Barboza, Team Lead - Heritage (Acting) | Heritage Planning Unit (Heritage, Sport, Tourism and Culture Industries) | 416-660-1027 | karla.barboza@ontario.ca
- Joseph Harvey, Heritage Planner | Heritage Planning Unit (Heritage, Sport, Tourism and Culture Industries) | 613-242-3743 | joseph.harvey@ontario.ca

You can remove Dan Minkin from the circulation list.

Joseph will send some preliminary comments by the end of October. In the meantime, let us

know if you have any questions.

Thanks in advance,
Karla

Karla Barboza MCIP, RPP, CAHP | (A) Team Lead, Heritage
Ministry of Heritage, Sport, Tourism and Culture Industries
Heritage, Tourism and Culture Division | Programs and Services Branch | Heritage Planning Unit
T. 416. 660.1027 | Email: karla.barboza@ontario.ca

From: Gasser, Matthew <Matthew.Gasser@stantec.com>

Sent: September-24-21 3:11 PM

To: Barboza, Karla (MHSTCI) <Karla.Barboza@ontario.ca>

Cc: Ginter, Kayla <Kayla.Ginter@stantec.com>; Knight, Mark <Mark.Knight@stantec.com>; Minkin, Dan (MHSTCI) <Dan.Minkin@ontario.ca>

Subject: Enbridge Gas Inc. – Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Good Afternoon,

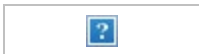
Attached please find a Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project.

Regards,

Matthew Gasser BES
Environmental Consultant

Matthew.Gasser@stantec.com

Stantec
300W-675 Cochrane Drive
Markham ON L3R 0B8



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From: [Ginter, Kayla](#)
To: [MNRF Ayl Planners \(NDMNRF\)](#)
Cc: [Knight, Mark](#); [Gasser, Matthew](#)
Subject: RE: Enbridge Gas Inc. – Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project
Date: Tuesday, September 28, 2021 10:11:00 AM
Attachments: [image001.png](#)
[image002.png](#)

Good Morning Karina,

Thank you for providing this information for identifying and assessing natural features and resources. The Environmental Report will be provided to NDMNRF when it is available.

Warmly,

Kayla Ginter M.ES. (Planning), OPPI Candidate
Environmental Coordinator, Assessment and Permitting

Direct: 226-980-5347

Kayla.Ginter@stantec.com

Stantec
300W-675 Cochrane Drive
Markham ON L3R 0B8



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From: MNRF Ayl Planners (NDMNRF) <MNRF.Ayl.Planners@ontario.ca>
Sent: Tuesday, September 28, 2021 9:38 AM
To: Gasser, Matthew <Matthew.Gasser@stantec.com>
Cc: Ginter, Kayla <Kayla.Ginter@stantec.com>; Knight, Mark <Mark.Knight@stantec.com>
Subject: RE: Enbridge Gas Inc. – Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project



**Nord,
Mines, Natural Resources
and Forestry**

Ministry of Northern Development,

**des Mines, des Richesses naturelles
et des Forêts**

Ministère du Développement du

September 28, 2021

Subject: Enbridge Gas Inc. – Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project

The Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNRF) received the notice for the Enbridge Gas Inc. – Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project. Thank you for circulating this information to our office, however, please note that we have not completed a screening of natural heritage or other resource values for the project at this time. Please also note that it is your responsibility to be aware of and comply with all relevant federal or provincial legislation, municipal by-laws or other agency approvals.

This response provides information to guide you in identifying and assessing natural features and resources as required by applicable policies and legislation, and engaging with the Ministry for advice as needed.

Natural Heritage & Endangered Species Act

In order to provide the most efficient service possible, the attached Natural Heritage Information Request Guide has been developed to assist you with accessing natural heritage data and values from convenient online sources.

It remains the proponent's responsibility to complete a preliminary screening for each project, to obtain available information from multiple sources, to conduct any necessary field studies, and to consider any potential environmental impacts that may result from an activity. We wish to emphasize the need for the proponents of development activities to complete screenings prior to contacting the Ministry or other agencies for more detailed technical information and advice.

The Ministry continues to work on updating data housed by Land Information Ontario and the Natural Heritage Information Centre, and ensuring this information is accessible through online resources. Species at risk data is regularly being updated. To ensure access to reliable and up to date information, please contact the Ministry of the Environment, Conservation and Parks at SAROntario@ontario.ca.

Petroleum Wells & Oil, Gas and Salt Resource Act

There may be petroleum wells within the proposed project area. Please consult the Ontario Oil, Gas and Salt Resources Library website (www.ogsrlibrary.com) for the best known data on any wells recorded by NDMNRF. Please reference the 'Definitions and Terminology Guide' listed in the publications on the Library website in order to better understand the well information available. Any oil and gas wells in your project area are regulated by the *Oil, Gas and Salt Resource Act*, and the supporting regulations and operating standards. If any unanticipated wells are encountered during development of the project, or if the proponent has questions regarding petroleum operations, the proponent should contact the Petroleum Operations Section at POSRecords@ontario.ca or 519-873-4634.

Public Lands Act & Lakes and Rivers Improvement Act

Some projects may be subject to the provisions of the *Public Lands Act* or the *Lakes*

and Rivers Improvement Act. Please review the information on NDMNRF's web pages provided below regarding when an approval is required or not. Please note that many of the authorizations issued under the *Lakes and Rivers Improvement Act* are administered by the local Conservation Authority.

- For more information about the *Public Lands Act*:
<https://www.ontario.ca/page/crown-land-work-permits>
- For more information about the *Lakes and Rivers Improvement Act*:
<https://www.ontario.ca/document/lakes-and-rivers-improvement-act-administrative-guide>

After reviewing the information provided, if you have not identified any of NDMNRF's interests stated above, there is no need to circulate any subsequent notices to our office.

If you have any questions or concerns, please feel free to contact me.

Sincerely,
Karina

Karina Černiavskaja | District Planner

Ministry of Northern Development, Mines, Natural Resources and Forestry

Email: MNRF.Ayl.Planners@ontario.ca



As part of providing [accessible customer service](#), please let me know if you have any accommodation needs or require communication supports or alternate formats.

From: Gasser, Matthew <Matthew.Gasser@stantec.com>

Sent: September-24-21 2:21 PM

To: MNRF Ayl Planners (NDMNRF) <MNRF.Ayl.Planners@ontario.ca>

Cc: Ginter, Kayla <Kayla.Ginter@stantec.com>; Knight, Mark <Mark.Knight@stantec.com>

Subject: Enbridge Gas Inc. – Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Good Afternoon,

Attached please find a Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project.

Regards,

Matthew Gasser BES
Environmental Consultant

Matthew.Gasser@stantec.com

Stantec
300W-675 Cochrane Drive
Markham ON L3R 0B8



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Please consider the environment before printing this email.



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



September 24, 2021

Ministry of Natural Resources and Forestry
MNRF Aylmer
Sent Via Email: MNRF.Ayl.Planners@ontario.ca

Dear , To Whom it May Concern

Reference: Enbridge Gas Inc. – Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project

Enbridge Gas Inc. (Enbridge Gas) has identified the need to enhance the capacity and deliverability of their existing Enbridge Gas storage operations in Lambton County. The Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project (the Project) will involve drilling a natural gas storage well (TKC 68) and an A-1 observation well (TCV 7), respectively located in the Kimball-Colinville Storage Pool and Coveny Storage Pool – two designated storage areas (DSAs) as defined in s. 36.1(1)(a) of the *Ontario Energy Board Act* (OEB Act).

Project activities at TKC 68 will commence with the construction of a temporary gravel drilling pad that will be approximately 10,000 square meters. Access to the site will be via temporary steel plates. Upon completion of drilling activities, approximately 120 metres of Nominal Pipe Size (NPS) 10-inch lateral pipeline will be constructed to connect the new natural gas storage well to the existing Kimball-Colinville gathering system. A permanent gravel pad of 60 square meters will then be installed around the well.

Project activities at TCV 7 will commence with the construction of a temporary gravel drilling pad that will be approximately 10,000 square meters. Access to the site will be via a new permanent access laneway. Upon completion of drilling activities, a permanent gravel pad of 60 square meters will be constructed around the well.

For more details, please refer to the attached map.

Enbridge Gas has retained Stantec Consulting Ltd. (Stantec) to undertake an Environmental Study of the construction and operation of 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 Fall 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, the Project is currently anticipated to begin April 2022.

September 24, 2021

Page 2 of 2

Reference: Enbridge Gas Inc. – Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project

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 Environmental Study Area.

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

If you have questions or comments regarding the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project, please do not hesitate to contact the undersigned.

Yours truly,

Stantec Consulting Ltd.

Kayla Ginter

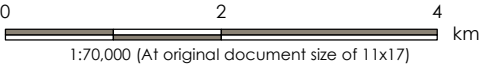
Kayla Ginter M.E.S. (Planning), OPPI Candidate
Environmental Planner,
Assessment & Permitting
Mobile: 226-980-5347
Kayla.Ginter@stantec.com

Attachment: Map of Project Area

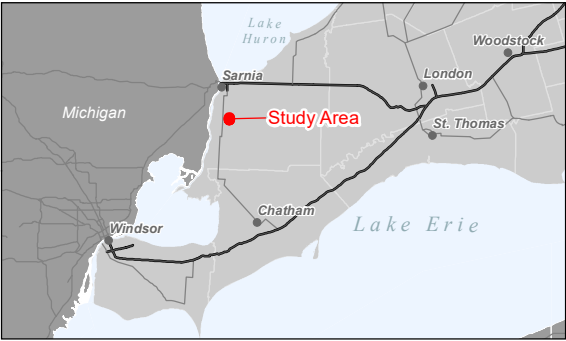
c. Evan Tomek, Sr. Analyst, Environment, Enbridge Gas



- Legend
- 1. Project Location of TKC 68
 - 2. Project Location of TCV 7
 - Expressway / Highway
 - Major Road
 - Minor Road
 - Railway
 - Watercourse
 - Waterbody
 - Wooded Area
 - Municipal Boundary - Lower Tier
 - Municipal Boundary - Upper Tier
- Site Features
- Well
 - Permanent Access
 - Temporary Access
 - Proposed Connecting Pipeline
 - Temporary Pad (approx. 10,000 m²)
 - Permanent Pad (approx. 60 m²)



- Notes
- Coordinate System: NAD 1983 UTM Zone 17N
 - Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2021.
 - Orthomagery © 2021 Microsoft Corporation © 2021 Maxar © CNES (2021) Distribution Airbus DS



Project Location: Township of St. Clair
160961448 REV A
Prepared by PRM on 2021-09-24
Technical Review by KG on 2021-09-24

Client/Project: Enbridge Gas Inc.
Coveny and Kimball-Colinville Well Drilling Project

Figure No.: 1
Title: Project Locations

Ministry of Natural Resources and Forestry



Natural Heritage Information Request Guide

Regional Operations Division, Ministry of
Natural Resources & Forestry

Update – April 1, 2019

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1.0 Background, Purpose and Scope

1.1 Background

The Ministry of Natural Resources and Forestry (MNRF) maintains a substantial amount of natural heritage information. The Government of Ontario is committed to transparency, customer service, and making information more publicly accessible. Access to natural heritage information is critical to informing municipal planning processes, development activities, and other initiatives such as science and research. To make natural heritage information more accessible and better understood, this document consolidates available MNRF natural heritage information and outlines how this information can be accessed.

1.2 Purpose of this Guide

The purpose of this guide is three-fold:

1. To provide a directory of natural heritage information sources available from the MNRF;
2. To reduce wait times for users to access the data, especially considering that much of the information is open and accessible; and
3. To help users efficiently access available data.

It remains the proponent's responsibility to:

- Complete a preliminary screening for their projects,
- Obtain available information from multiple sources,
- Conduct any necessary field studies, and
- Consider any potential environmental impacts that may result from a proposed activity.

To provide the most efficient service possible, proponents should complete natural heritage screenings **prior** to contacting Government of Ontario Ministry offices or other agencies for more detailed technical information and advice. This guide provides detailed information on where and how to access information to screen a study area in advance of consulting with Ministries.

1.3 Scope

MNRF maintains and provides information related to its resource management and land use planning mandate, including natural heritage, fisheries, wildlife, mineral aggregate resources, crown lands, protected lands and more. This information is made available to organizations, private individuals, consultants, and developers through online sources and is often considered under various pieces of legislation or as part of regulatory

approvals and planning processes. This guide has been created to help users navigate the available natural heritage information to support various activities. This guide additionally provides a list of other sources of information beyond MNRF, although it is not intended to be an exhaustive list of available sources.

This guide does not replace the Natural Heritage Reference Manual but is intended to support it. This guide is not intended to circumvent any field studies that may be necessary to document features and assess impacts.

This guide is a resource for proponents during project planning. Reviewing the layers listed in the appendices will enable proponents to prepare for both proponent and government led Environmental Assessments. For projects proposed on crown land, MNRF is the permitting agency and there may be additional initial screening requirements. Further studies may be required depending on the nature and location of the project.

1.4 Audience

The intent of this public guide is to make it easier for the proponents and consultants to access relevant information. This guide will also help internal Ministry staff who are responding to information requests or site screenings.

1.5 Disclaimer

The information available from MNRF and the sources listed below in the appendices should **not be considered as a substitute for site visits and appropriate field surveys**. Generally, information available from MNRF can be regarded as a starting point from which to conduct further field studies, if needed. While this data represents MNRF's best available current information, it is important to note that a lack of information for a site does not mean that additional features and values are not present. There are many areas where MNRF does not currently have information. On-site assessments can better verify site conditions, identify natural features and values and confirm presence of species at risk and/or their habitats.

This guide will be updated from time to time. For a current version of this guide, please contact your local or regional Government of Ontario Ministry office. Up-to-date contact information for Ministry offices can be obtained through the Government of Ontario Employee and Organization Directory, Info-GO, available at <http://www.infogo.gov.on.ca/infogo/home.html>.

2.0 Data Resources

2.1 Make a Map: Natural Heritage Areas

The MNRF maintains the [Make a Natural Heritage Area Map](http://www.gisapplication.lrc.gov.on.ca/mamnh/Index.html?site=MNR_NHLUPS_NaturalHeritage&viewer=NaturalHeritage&locale=en-US): http://www.gisapplication.lrc.gov.on.ca/mamnh/Index.html?site=MNR_NHLUPS_NaturalHeritage&viewer=NaturalHeritage&locale=en-US which provides public access to natural heritage information without the user needing to have Geographic Information System (GIS) capability. It allows users to view and identify natural heritage features, mark areas of interest, and create and print a custom map directly from the web application. The tool also shows topographic information such as roads, rivers, contours and municipal boundaries.

Make a Natural Heritage Area Map should be consulted as a first step in screening for natural heritage features. This tool does not provide access to all of the MNRF's natural heritage information and some layers may be incomplete.

Users are advised that sensitive information has been removed from the natural areas dataset and the occurrences of species at risk, rare plant communities and wildlife concentration areas has been generalized to a 1-kilometre grid.

The web-based mapping tool displays natural heritage data, including:

- Generalized Species at risk occurrence data (based on a 1-km square grid),
- provincial parks and conservation reserves,
- Areas of Natural and Scientific Interest,
- Wetlands,
- Woodlands, and
- Natural Heritage Information Centre data.

Data cannot be downloaded directly from this web map, however, information included in this application is available digitally through [Land Information Ontario](https://www.ontario.ca/page/land-information-ontario): <https://www.ontario.ca/page/land-information-ontario> (LIO).

2.2 Land Information Ontario (LIO)

Most natural heritage data is publicly available. This data is managed in a large corporate database called the LIO Warehouse and can be discovered through the [LIO Metadata Management Tool](https://www.javacoeapp.lrc.gov.on.ca/geonetwork/srv/en/main.home): <https://www.javacoeapp.lrc.gov.on.ca/geonetwork/srv/en/main.home>. This tool provides descriptive information about the characteristics, quality and context of the data. Publicly available geospatial data can be downloaded directly from this site.

The LIO Metadata Management Tool helps users to find, assess and access GIS data and houses up to 350 data and information products. Geospatial data are available through this tool, including (but not limited to):

- **Aquatic Resource Area (ARA) data classes:** general fisheries spatial data including water body type, thermal regime and fish species
- **Spawning Area (fish)**
- **Nursery Area (fish)**
- **Nesting Site (birds)**
- **Areas of Natural and Scientific Interest (ANSIs)**
- **Wetlands**
- **Wintering Area (deer, moose, etc.)**
- **Fire (Potential Hazardous Forest Types for Wildland Fire)**

[Appendix A](#) links MNRF's authoritative, relevant data sets to the location in the LIO Database where the data can be downloaded.

Note that while most data is publicly available, some data may be considered highly sensitive (i.e., Nursery Areas for fish, species at risk observations), and as such, restrictions are in place limiting access to this information.

2.3 Species at Risk

For detailed information on species at risk, please visit [Make a Natural Heritage Areas Map](#) or contact the Ministry of Environment, Conservation and Parks at SAROntario@ontario.ca.

2.4 Public Agencies

Ministries, Municipalities and Conservation Authorities may have proposed infrastructure work that requires screening. In these instances, these broader public sector organizations should contact the appropriate Ministry Office to explore more efficient ways to access information and make decisions. This could include entering into data sharing agreements. Please note that many public agencies already have ongoing data sharing agreements in place with LIO and the Natural Heritage Information Centre (NHIC).

2.5 For Additional Information

For information pertaining to corporate data, contact LIO for support by email at lio@ontario.ca or by telephone at 705-755-1878.

For further information pertaining to the NHIC, including data sharing agreements, please email NHICrequests@ontario.ca or call 705-755-2159.

There may be circumstances where a local Government of Ontario office should be consulted for additional information and/or technical advice. For instance, projects proposed on Crown Land should be discussed early in the project planning process with local MNRF District staff.

A listing of District offices can be found on this web page
<https://www.ontario.ca/page/ministry-natural-resources-and-forestry-regional-and-district-offices>

Appendix A: Natural Heritage Mapping Resources

The table below provides users links to maps and GIS data depicting natural heritage. This list is intended to help guide a natural heritage screening exercise. Click in the *Information Source* column for hyperlinks.

Information Source	Theme	Instructions for using this information
Wetland	Significant Wetlands	Use field" WETLAND_SIGNIFICANCE = Evaluated-Provincial" for provincially significant wetlands.
	Coastal Wetlands	Use field"COASTAL_IND=Yes" for Coastal Wetlands
	Fish & Wildlife, Wetlands	Support evaluation and identification of habitat and wetlands. Please consult user guide for details. Consult the User Guide for more information.
Make a Natural Heritage Areas Map	Endangered and Threatened Species	Turn on the NHIC 1 km Grid square and use the Find... tool to query for species intersecting the grid. Consult the User guide for more information.
	Fish & Wildlife Habitat	Turn on the NHIC 1 km Grid square and use the Find... tool to query for species intersecting the grid. Consult the User guide for more information.
Provincially Tracked Species 1KM Grid	Endangered and Threatened Species	Use field "SARO_STAUS= 'Endangered' or SARO_STATUS='Threatened'" for Endangered and Threatened species.
Wintering Area	Wildlife Habitat	Supports evaluation and identification of wildlife habitat.
Aquatic Feeding Area	Wildlife Habitat	Supports evaluation and identification of wildlife habitat.
Breeding Area	Wildlife Habitat	Supports evaluation and identification of wildlife habitat.
Calving Fawning Site	Wildlife Habitat	Supports evaluation and identification of wildlife habitat.

Information Source	Theme	Instructions for using this information
Den Site	Wildlife Habitat	Supports evaluation and identification of wildlife habitat.
Feeding Area, Wildlife	Wildlife Habitat	Supports evaluation and identification of wildlife habitat.
Habitat Planning Range	Wildlife Habitat	Supports evaluation and identification of wildlife habitat.
Mineral Lick	Wildlife Habitat	Supports evaluation and identification of wildlife habitat.
Nesting Site	Wildlife Habitat	Supports evaluation and identification of wildlife habitat.
Nursery Area, Wildlife	Wildlife Habitat	Supports evaluation and identification of wildlife habitat.
Resting Area	Wildlife Habitat	Supports evaluation and identification of wildlife habitat.
Staging Area, Wildlife	Wildlife Habitat	Supports evaluation and identification of wildlife habitat.
Travel Corridor, Wildlife	Wildlife Habitat	Supports evaluation and identification of wildlife habitat.
ANSI	Significant Areas of Natural and Scientific Interest	Use the field "ANSI_SIGNIFICANCE = Provincial" if you need to view only Provincially Significant ANSI. Consult the User Guide for more information.
Wooded Area	Woodlands	Supports evaluation and identification of significant woodlands and wildlife habitat
ARA Line Segment	Fish Species and Habitat	Supports evaluation and identification of fish habitat by indicating fish species present in the water feature. Consult the User Guide for more information.

Information Source	Theme	Instructions for using this information
ARA Polygon Segment	Fish Species and Habitat	Supports evaluation and identification of fish habitat by indicating fish species present in the water feature. Consult the User Guide for more information.
	At Capacity Lake Trout Lakes	Use field" AT_DEVELOPMENT_CAPACITY_IND = Yes" for designated at capacity lakes
Aquatic Resource Area (ARA) Survey Point	Fish Species	Supports evaluation and identification of fish habitat by indicating fish species present at that location. Consult the User Guide for more information.
Spawning Area	Fish Habitat	Supports evaluation and identification of fish habitat
Nursery Area, Fish	Fish Habitat	Supports evaluation and identification of fish habitat
Staging Area, Fish	Fish Habitat	Supports evaluation and identification of fish habitat
Feeding Area, Fish	Fish Habitat	Supports evaluation and identification of fish habitat
Travel Corridor Fish	Fish Habitat	Supports evaluation and identification of fish habitat
Ecoregion	Ecoregions	Used to determine what ecoregion covers your area
Natural heritage System Area	Natural Heritage System	Identifies Natural Heritage System Areas within the Greenbelt Plan, the Oak Ridges Moraine Conservation Plan, the Niagara Escarpment Plan and the Growth Plan for the Greater Golden Horseshoe. Consult this guide for more information.
Breeding Bird Atlas	Wildlife Habitat	Provides additional information on the location of Breeding Birds
eBird	Wildlife Habitat	Provides additional information on bird sightings

Information Source	Theme	Instructions for using this information
Ontario Reptile and Amphibian Atlas	Wildlife Habitat	Provides additional information on Reptile and Amphibian sightings
iNaturalist	Fish & Wildlife Habitat	Provides additional information on fish & wildlife sightings

Appendix B: Natural Heritage Information Resources

The table below provides users links to Natural Heritage policies and documentation that should be referenced when conducting a natural heritage screening exercise. Click in the *Information Source* column for hyperlinks

Information Source	Theme	Description
https://www.ontario.ca/document/water-work-timing-window-guidelines	Water Work Timing windows	An information source that can be used to determine in-water work timing windows
Inland Lakes designated for Lake Trout management	Fish Habitat	A list of lakes in Ontario that are managed as Lake Trout lakes
Significant wildlife habitat guide	Wildlife Habitat	Provides detailed information on the identification, description and prioritization of significant wildlife habitat.
Significant wildlife habitat ecoregional criteria schedules: Ecoregion 6E	Wildlife Habitat	Provides detailed information on the description, criteria, information sources and assessment methods for significant wildlife habitat in Ecoregion 6E
Significant wildlife habitat ecoregional criteria schedules: Ecoregion 7E	Wildlife Habitat	Provides detailed information on the description, criteria, information sources and assessment methods for significant wildlife habitat in Ecoregion 7E
Significant wildlife habitat ecoregional criteria schedules: Ecoregion 5E	Wildlife Habitat	Provides detailed information on the description, criteria, information sources and assessment methods for significant wildlife habitat in Ecoregion 5E
Significant wildlife habitat ecoregional criteria schedules: Ecoregion 3E	Wildlife Habitat	Provides detailed information on the description, criteria, information sources and assessment methods for significant wildlife habitat in Ecoregion 3E
Significant wildlife habitat ecoregional criteria schedules: Ecoregion 3W	Wildlife Habitat	Provides detailed information on the description, criteria, information sources and assessment methods for significant wildlife habitat in Ecoregion 3E
Significant wildlife habitat ecoregional criteria schedules: Ecoregion 4E	Wildlife Habitat	Provides detailed information on the description, criteria, information sources and assessment methods for significant wildlife habitat in Ecoregion 3E
Significant wildlife habitat mitigation support tool	Wildlife Habitat	Provides advice and recommendations on how to mitigate wildlife habitat during a development process
Natural heritage reference manual	Natural Heritage	Provides guidance for implementing the natural heritage policies of the Provincial policy Statement

Appendix C: Other information Sources

The table below provides users links to other data and resources that could be relevant when screening for development. Click in the *Information Source* column for hyperlinks

Information Source	Theme
Crown Land Use Policy Atlas	Crown Land
Make a Topographic Map	Base Data Mapping
Pits and Quarries	Aggregates
Aggregate resources policies and procedures	Aggregates
Aggregate resources study	Aggregates
Exploring for and extracting oil, natural gas and salt resources	Oil, Gas and Salt Resources
Petroleum wells	Oil, Gas and Salt Resources
Great Lakes – St. Lawrence River System and Large inland lakes: Technical Guides for flooding, erosion and dynamic beaches in support of natural hazards policies 3.1 of the provincial policy statement	Hazards
Adaptive Management of Stream Corridors in Ontario including Natural Hazards Technical Guides	Hazards
The Wildland Fire Risk Assessment and Mitigation Reference Manual	Hazards

Information Source	Theme
Public Lands Act	Crown Land
Crown land work permits	Crown Land
Aggregate resources	Aggregates
Lakes and Rivers Improvement Act	Crown Land
Licence to collect fish for scientific or education purposes	Fish
https://www.ontario.ca/search/data-catalogue	Base Data mapping
Fire - Potential Hazardous Forest Types for Wildland Fire	Hazards
MNR Region	Base Data mapping
MNR District	Base Data mapping
GeoBase	Base Data mapping
Mining Lands Administration System (MLAS) – Map Viewer	Mines
Geoconnections	Base Data mapping

Information Source	Theme
Ministry of Northern Development and Mines Mapping and link to Geology Ontario databases	Mines
Ministry of Environment, Conservation and Parks Data	Environment
National Air Photo Library	Aerial photos
Archives Ontario Aerial Photography	Aerial photos
GEOGratis	Base Data mapping
County Soils Maps	Base Data mapping
Forest Fire Info Map	Hazards
Agricultural Information Atlas	Agriculture
Crown Land Automated Internet Mapping System	Mines
COSINE	Base Data mapping
GEONAME	Base Data mapping
Government-wide data inventory	Base Data mapping

From: [Gonsalves, Meaghan \(IO\)](#)
To: [Ginter, Kayla](#)
Subject: Notice of Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project - EA Notice Response
Date: Friday, October 1, 2021 1:10:27 PM
Attachments: [image001.png](#)

Good afternoon,

Thank you for sending us the Notice of Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project in Lambton County.

While our initial scan indicates that there are no properties owned by the Minister of Government and Consumer Services within your project's study area, it is the proponent's responsibility to verify if any provincial government property is within the study area. Title documents may identify owners of provincial government property as any of the following or variations:

- Her Majesty the Queen
- His Majesty the King
- Hydro One
- Hydro One Networks Inc.
- Management Board Secretariat (MBS)
- Minister of Economic Development, Employment and Infrastructure (MEDEI)
- Minister of Energy and Infrastructure (MEI)
- Minister of Government and Consumer Services (MGCS)
- Minister of Infrastructure (MOI)
- Minister of Natural Resources and Forestry (MNRF)
- Minister of Public Infrastructure Renewal (PIR)
- Minister of Public Works
- Minister of Transportation (MTO)
- Ontario Lands Corporation (OLC)
- Ontario Realty Corporation (ORC)

If the proponent confirms that no provincial government property exists in the project area, please remove the following stakeholder from the contact list for this project:

Lisa Myslicki
Infrastructure Ontario, 1 Dundas Street West, Suite 2000
Toronto, ON M5G 1Z3
Lisa.Myslicki@infrastructureontario.ca

If provincial government property is in the study area but not required for the project, you should continue to consult us as a directly affected stakeholder. However, if government property is required for the project, the proponent should contact us so that we can advise about requirements for obtaining government property.

Additionally, please remember to send notices to our dedicated notice email address: noticereview@infrastructureontario.ca

Kind regards,



Meaghan Gonsalves (she, her)

Infrastructure Ontario
Co-op, Environmental Management
meaghan.gonsalves@infrastructureontario.ca
Phone: +1 647-361-5030
www.infrastructureontario.ca

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From: [Ginter, Kayla](#)
To: Grace.Donnelly@ontario.ca
Subject: RE: Enbridge Gas Inc. – Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project
Date: Tuesday, October 12, 2021 9:31:00 AM

Good Morning Grace,

Hope you had a nice thanksgiving.

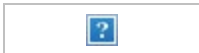
Thank you for your email. We are currently studying project impacts and are grateful for the resources provided.

Have a nice day,

Kayla Ginter M.ES. (Planning), OPPI Candidate
Environmental Coordinator, Assessment and Permitting

Direct: 226-980-5347
Kayla.Ginter@stantec.com

Stantec
300W-675 Cochrane Drive
Markham ON L3R 0B8



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From: Donnelly, Grace (MECP) <Grace.Donnelly@ontario.ca>
Sent: Friday, October 8, 2021 11:03 AM
To: Gasser, Matthew <Matthew.Gasser@stantec.com>
Cc: Source Protection Screening (MECP) <SourceProtectionScreening@ontario.ca>; DesLauriers, Angelune (MECP) <Angelune.DesLauriers@ontario.ca>; Moulton, Jennifer L. (MECP) <Jennifer.L.Moulton@ontario.ca>
Subject: RE: Enbridge Gas Inc. – Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project

Notification through the Ontario Pipeline Coordinating Committee

Conservation and Source Protection Branch (CSPB) has received a notification about the Coveny and Kimball-Colinville Well Drilling Project. Natural gas pipelines are not identified as a threat to drinking water sources under the *Clean Water Act, 2006*. However, certain activities related to the construction of pipelines may pose a risk to sources of drinking water. CSPB offers the following information for your consideration as you proceed with the assessment of this proposed project and development of an Environmental Report per the Ontario Energy Board's *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario*.

The *Clean Water Act, 2006* (CWA) aims to protect existing and future sources of drinking water. To achieve this, several types of vulnerable areas are delineated around surface water intakes and wellheads for every municipal residential drinking water system that is located in a source protection area. These vulnerable areas are known as a Wellhead Protection Areas (WHPAs), and surface water Intake Protection Zones (IPZs). Other vulnerable areas that can be delineated under the CWA for municipal drinking water systems include Significant Groundwater Recharge Areas (SGRAs) and Highly Vulnerable Aquifers (HVAs). In addition, event-based modelling areas (EBAs) and Issues Contributing Areas (ICAs) may also occur, overlapping with one of the four above-named vulnerable areas.

To identify whether the project would be occurring within a drinking water source protection area, and whether it intersects with a vulnerable area, please consult the Source Protection Information Atlas:

<https://www.gisapplication.lrc.gov.on.ca/SourceWaterProtection/Index.html?site=SourceWaterProtection&viewer=SWPViewer&locale=en-US>

Specifically, natural gas pipeline projects may include activities during the construction or maintenance phases that, if located in a vulnerable area, may pose a risk to sources of drinking water (i.e. have the potential to adversely affect the quality or quantity of drinking water sources) and could be subject to policies in a source protection plan. Where an activity poses a risk to drinking water, policies in the local source protection plan may impact how or where that activity is undertaken. For example, construction and maintenance phase activities that may pose a risk to sources of drinking water may include the storage of fuel, stormwater management facilities, and the relocation of sanitary sewage pipes. Policies may prohibit certain activities, or they may require risk management measures for these activities.

Where an activity related to the construction or maintenance phase of the natural gas pipeline poses a risk (significant, moderate, or low) to drinking water, the proponent should document and discuss in the environmental report how the project addresses applicable policies in the local source protection plan. This section should then be used to inform, and be reflected in, other sections of the report; such as the identification of net positive/negative effects of alternatives, mitigation measures, evaluation of alternatives etc. Environmental reports may refer to spill prevention and contingency plans and other mitigation measures that protect human and environmental health. Environmental reports should also demonstrate how these measures protect sources of drinking water to address the intent of the CWA.

The environmental report should also identify how sensitive hydrologic features including current or future sources of drinking water not explicitly addressed in source protection plans, will be protected during the construction and maintenance of the project. This may include private systems – individual or clusters, and designated facilities within the meaning of O. Reg. 170/03 under the Safe Drinking Water Act – i.e., camps, schools, health care facilities, seasonal users, etc.

For further information about applicable source protection plans and assistance in identifying all applicable policies and their requirements, proponents should contact

the source protection program manager for the applicable source protection region.
<https://conservationontario.ca/conservation-authorities/source-water-protection/source-protection-plans-and-resources/>

Thank you for considering the Conservation and Source Protection Branch's comments as you undertake the environmental review for your natural gas pipeline. If you have any questions or concerns about the above information, please do not hesitate to contact me. Additionally, I have attached an example of a Source Protection Information Atlas map outlining the area the pipeline is going to be rebuilt. At this time, the drilling areas do not coincide with any vulnerable areas.

Grace Donnelly (she/her)

Program and Service Delivery Intern, Conservation and Source Protection Branch

Ministry of the Environment, Conservation and Parks

P: (437) 925-6408

E: grace.donnelly@ontario.ca

From: Gasser, Matthew <Matthew.Gasser@stantec.com>

Sent: September 24, 2021 2:50 PM

To: Source Protection Screening (MECP) <SourceProtectionScreening@ontario.ca>

Cc: Ginter, Kayla <Kayla.Ginter@stantec.com>; Knight, Mark <Mark.Knight@stantec.com>

Subject: Enbridge Gas Inc. – Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Good Afternoon,

Attached please find a Notice of Study Commencement for the Coveny and Kimball-Colinville Well Drilling (TKC 68 and TCV 7) Project.

Regards,

Matthew Gasser BES

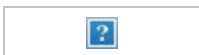
Environmental Consultant

Matthew.Gasser@stantec.com

Stantec

300W-675 Cochrane Drive

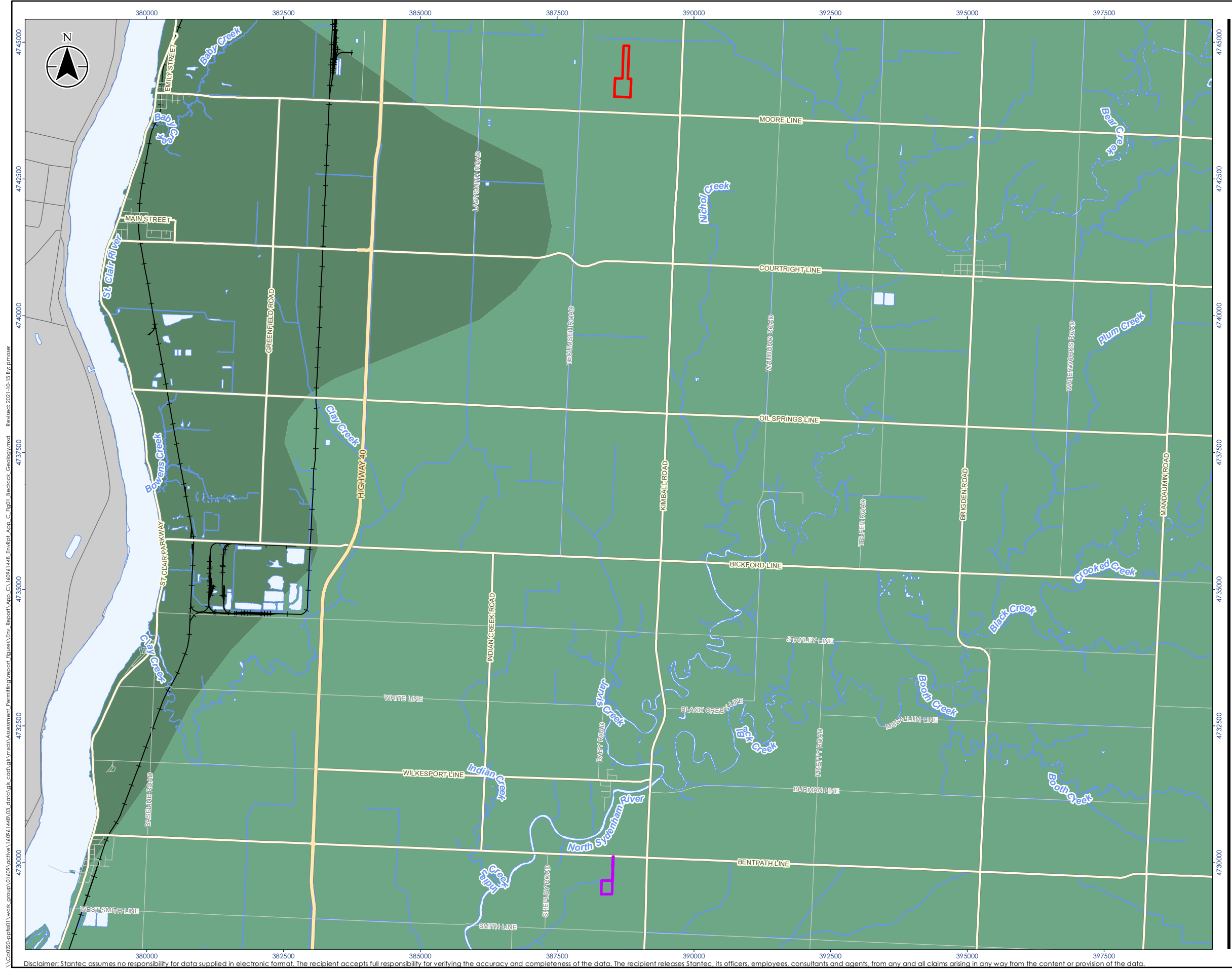
Markham ON L3R 0B8



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APPENDIX C: EXISTING CONDITIONS FIGURES

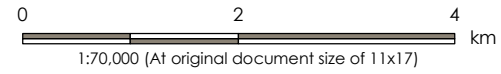


Legend

- Study Area of TKC 68
- Study Area of TCV 7
- Expressway / Highway
- Major Road
- Minor Road
- Railway
- Watercourse
- Waterbody

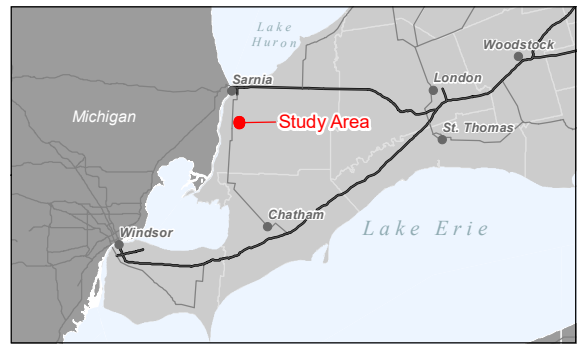
Bedrock Geology

- 61: Shale; Port Lambton Gp.
- 60a: Kettle Point Fm.



Notes

- Coordinate System: NAD 1983 UTM Zone 17N
- Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2021.
- Ontario Geological Survey 2011, 1:250 000 scale bedrock geology of Ontario; Ontario Geological Survey, Miscellaneous Release---Data 126-Revision 1, ISBN 978-1-4435-5704-7 (CD) ISBN 978-1-4435-5705-4



Project Location
Township of
St. Clair

160961448 REVA
Prepared by PRM on 2021-10-15
Technical Review by KG on 2021-10-15

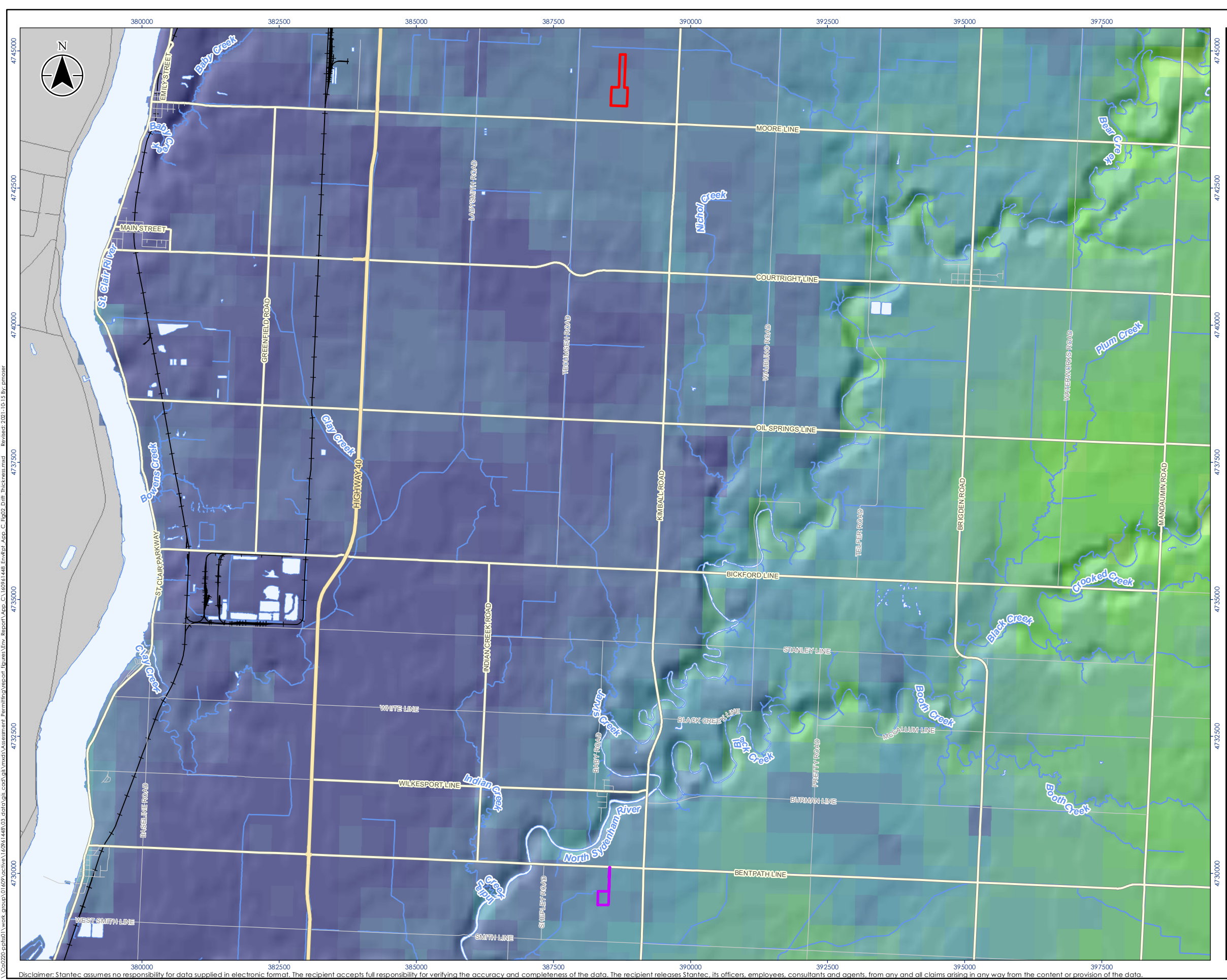
Client/Project
Enbridge Gas Inc.
Coveny and Kimball-Colinville Well Drilling Project

Figure No.

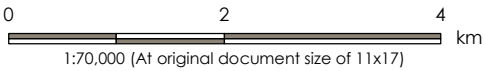
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Title

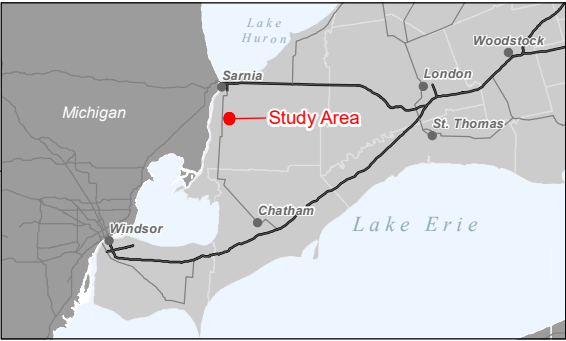
Bedrock Geology



- Legend
- Study Area of TKC 68
 - Study Area of TCV 7
 - Expressway / Highway
 - Major Road
 - Minor Road
 - Railway
 - Watercourse
 - Waterbody
- Drift Thickness
- High : 76
- Low : 0



- Notes
1. Coordinate System: NAD 1983 UTM Zone 17N
 2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2021.
 3. Gao, C., Shiota, J., Kelly, R.L., Brunton, F.R. and van Haften, S. 2006. Bedrock topography and overburden thickness mapping, southern Ontario; Ontario Geological Survey, Miscellaneous Release—Data 207.



Project Location
Township of
St. Clair

160961448 REVA
Prepared by PRM on 2021-10-15
Technical Review by KG on 2021-10-15

Client/Project
Enbridge Gas Inc.
Coveny and Kimball-Colinville Well Drilling Project

Figure No.

2

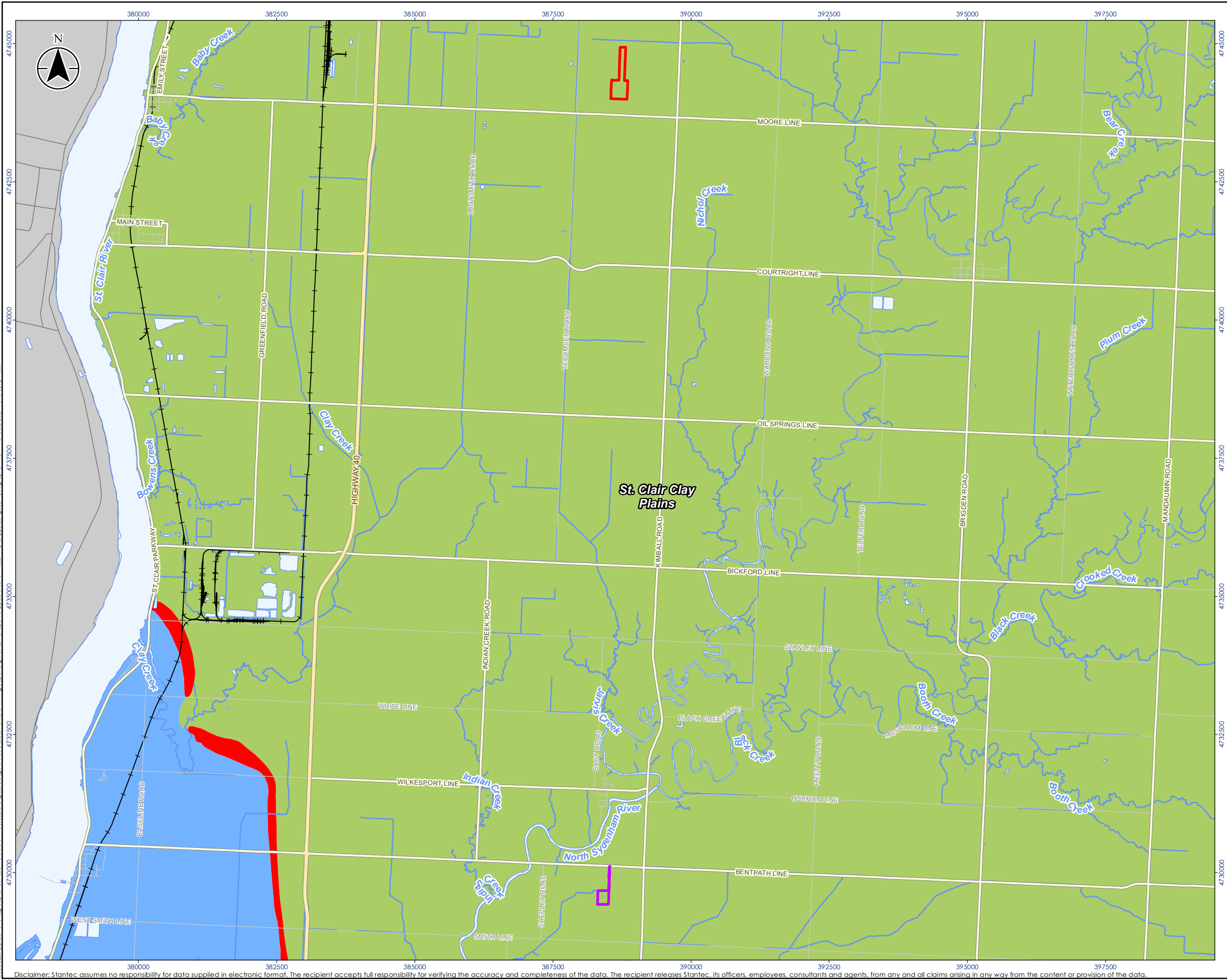
Title

Drift Thickness

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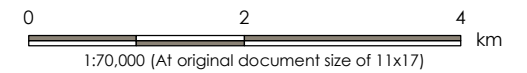


Legend

- Study Area of TKC 68
- Study Area of TCV 7
- Expressway / Highway
- Major Road
- Minor Road
- Railway
- Watercourse
- Waterbody
- Physiographic Region Boundary

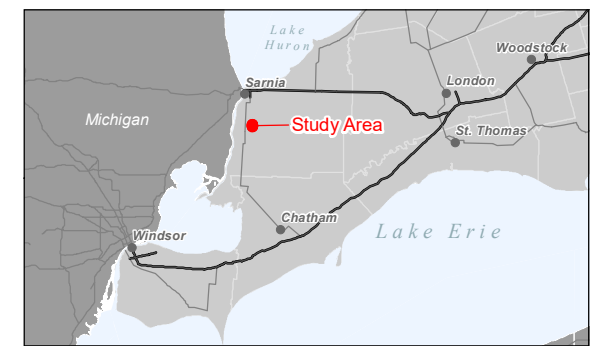
Physiography

- 14: Beaches
- 12: Clay Plains
- 8: Bevelled Till Plains



Notes

- Coordinate System: NAD 1983 UTM Zone 17N
- Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2021.
- Chapman, L.J. and Putnam, D.F. 2007. Physiography of southern Ontario; Ontario Geological Survey, Miscellaneous Release—Data 228.



Project Location
Township of
St. Clair

160961448 REVA
Prepared by PRM on 2021-10-15
Technical Review by KG on 2021-10-15

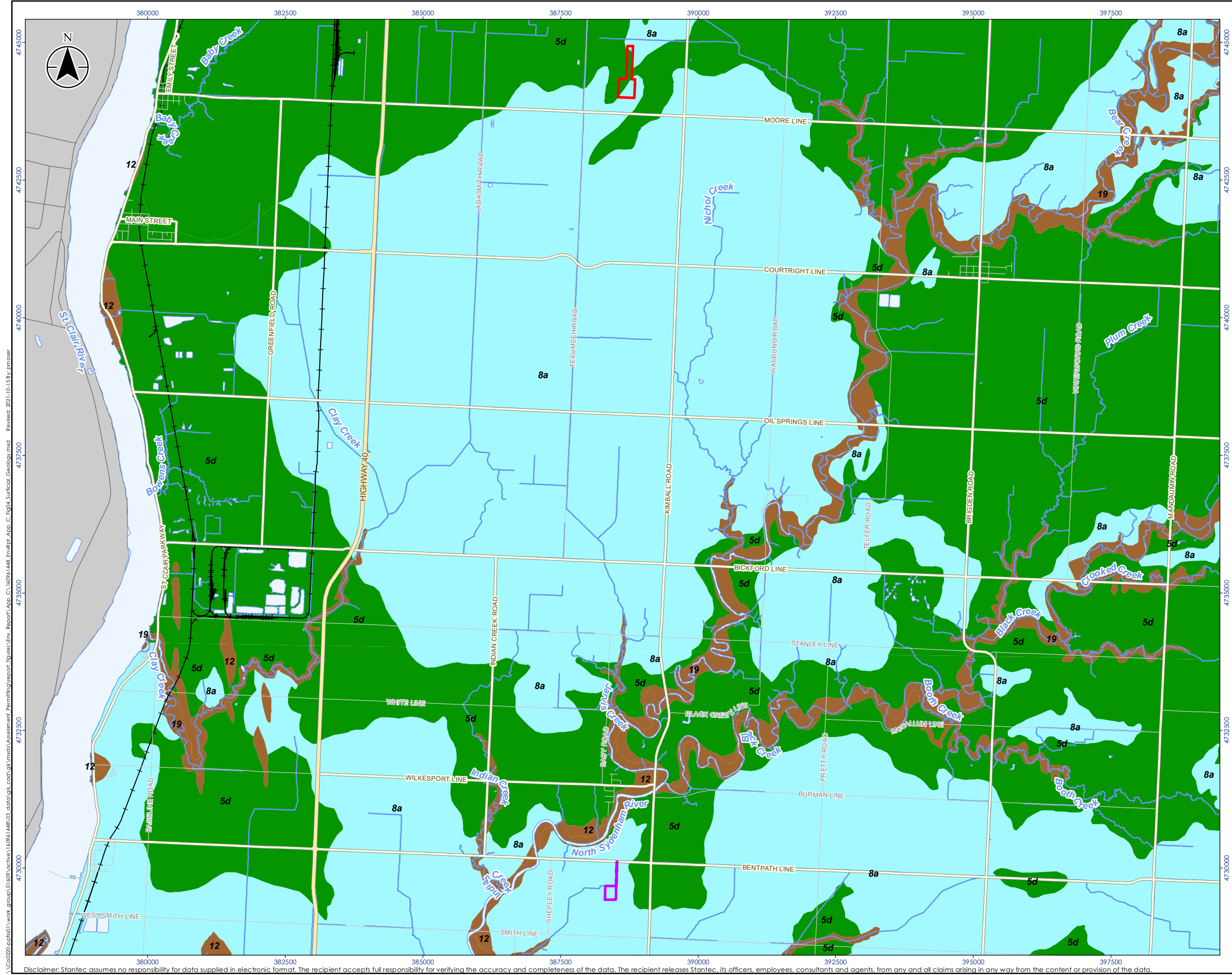
Client/Project
Enbridge Gas Inc.
Coveny and Kimball-Colinville Well Drilling Project

Figure No.

3

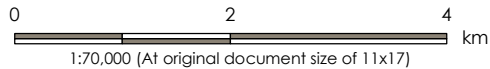
Title

Physiography



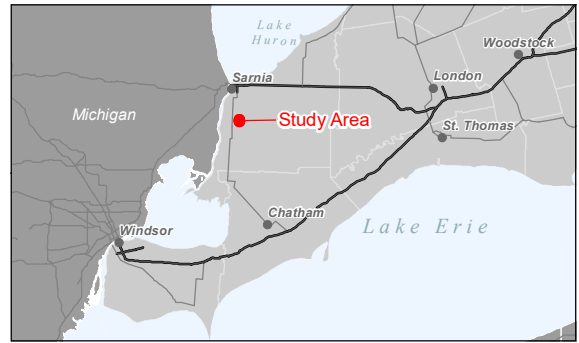
Legend

- Study Area of TKC 68
- Study Area of TCV 7
- Expressway / Highway
- Major Road
- Minor Road
- Railway
- Watercourse
- Waterbody
- Surficial Geology**
 - 19: Modern alluvial deposits
 - 12: Older alluvial deposits
 - 8a: Fine-textured glaciolacustrine deposits (Massive-well laminated)
 - 5d: Glaciolacustrine-derived silty to clayey till



Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
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3. Ontario Geological Survey 2010. Surficial geology of Southern Ontario; Ontario Geological Survey, Miscellaneous Release--Data 128-REV ISBN 978-1-4435-2483-4.



Project Location
Township of
St. Clair
160961448 REVA
Prepared by PRM on 2021-10-15
Technical Review by KG on 2021-10-15

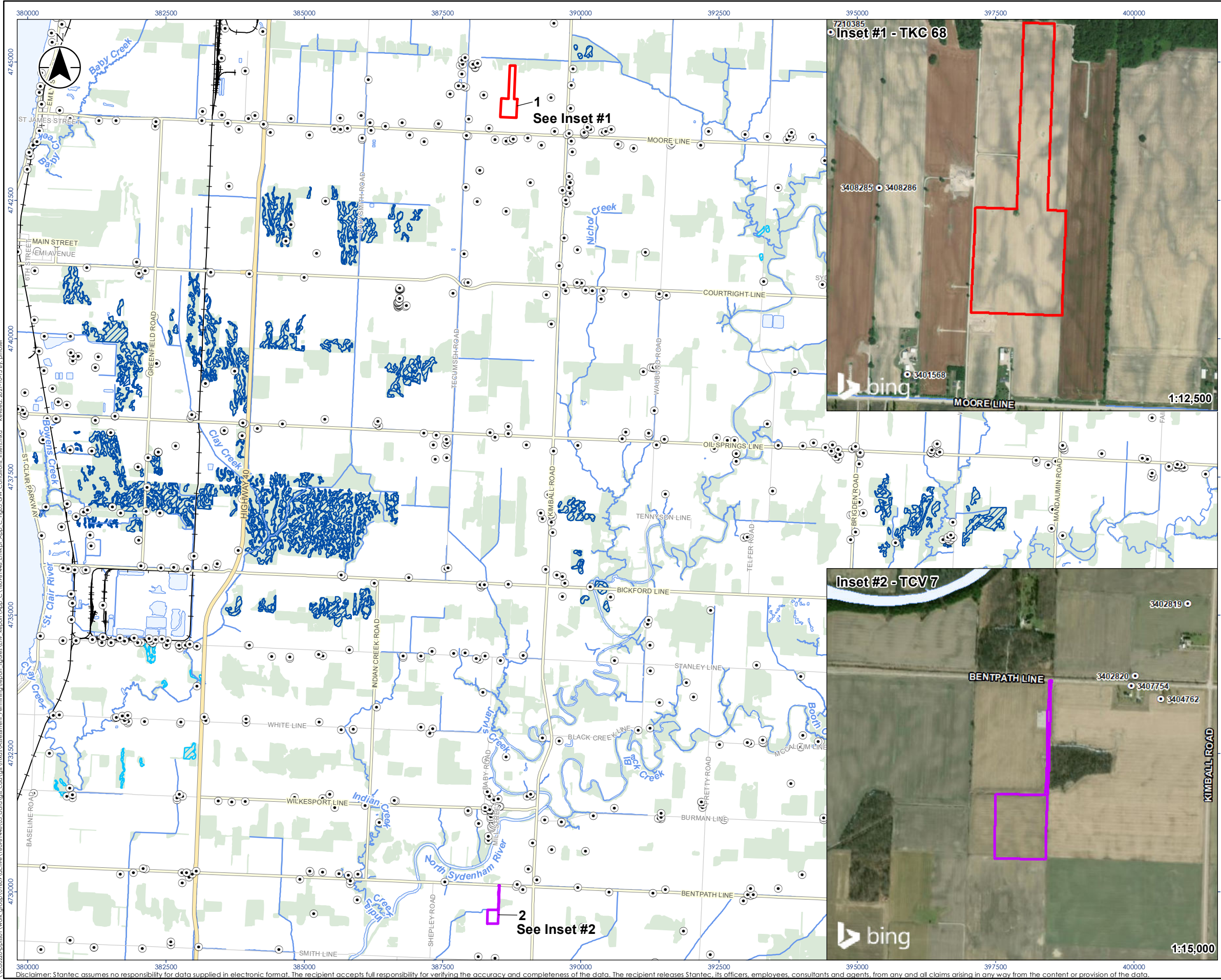
Client/Project
Enbridge Gas Inc.
Coveny and Kimball-Colinville Well Drilling Project

Figure No.

4

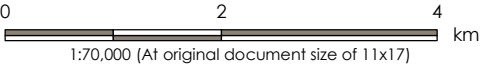
Title

Surficial Geology

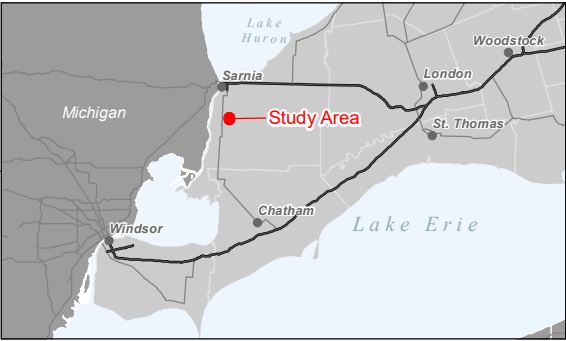


Legend

- Study Area of TKC 68
- Study Area of TCV 7
- Water Well Location
- Expressway / Highway
- Major Road
- Minor Road
- Railway
- Watercourse
- Waterbody
- Wetland - Evaluated (Provincial)
- Wetland - Evaluated (Other)
- Wooded Area



- Notes**
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 - MECP water well record locations have been positioned based on published UTM coordinates and their locations should be considered approximate.



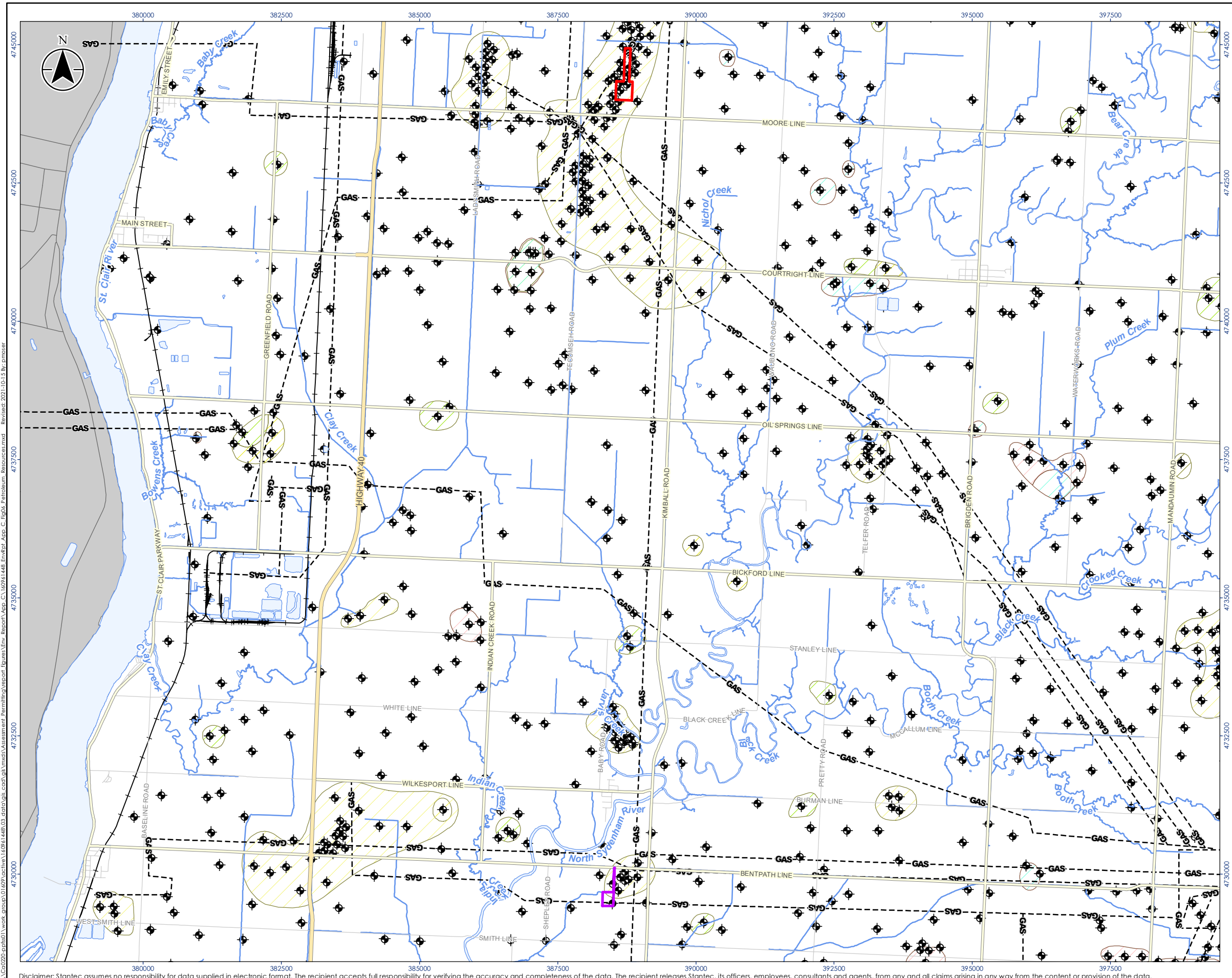
Project Location
Township of
St. Clair

160961448 REVA
Prepared by PRM on 2021-10-15
Technical Review by KG on 2021-10-15

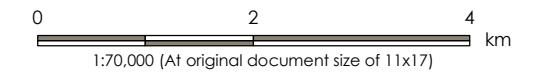
Client/Project
Enbridge Gas Inc.
Coveny and Kimball-Colinville Well Drilling Project

Figure No.
5

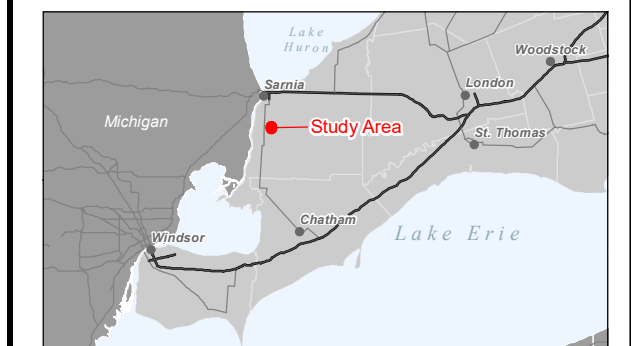
Title
Groundwater Conditions



- Legend
- Study Area of TKC 68
 - Study Area of TCV 7
 - Petroleum Well
 - Expressway / Highway
 - Major Road
 - Minor Road
 - Railway
 - GAS- Gas Pipeline
 - Watercourse
 - Waterbody
- Petroleum Pool**
- Natural Gas Storage Pool - Active
 - Natural Gas Pool - Active
 - Natural Gas Pool - Abandoned
 - Natural Gas Pool - Suspended
 - Oil Pool - Active
 - Oil Pool - Abandoned



- Notes
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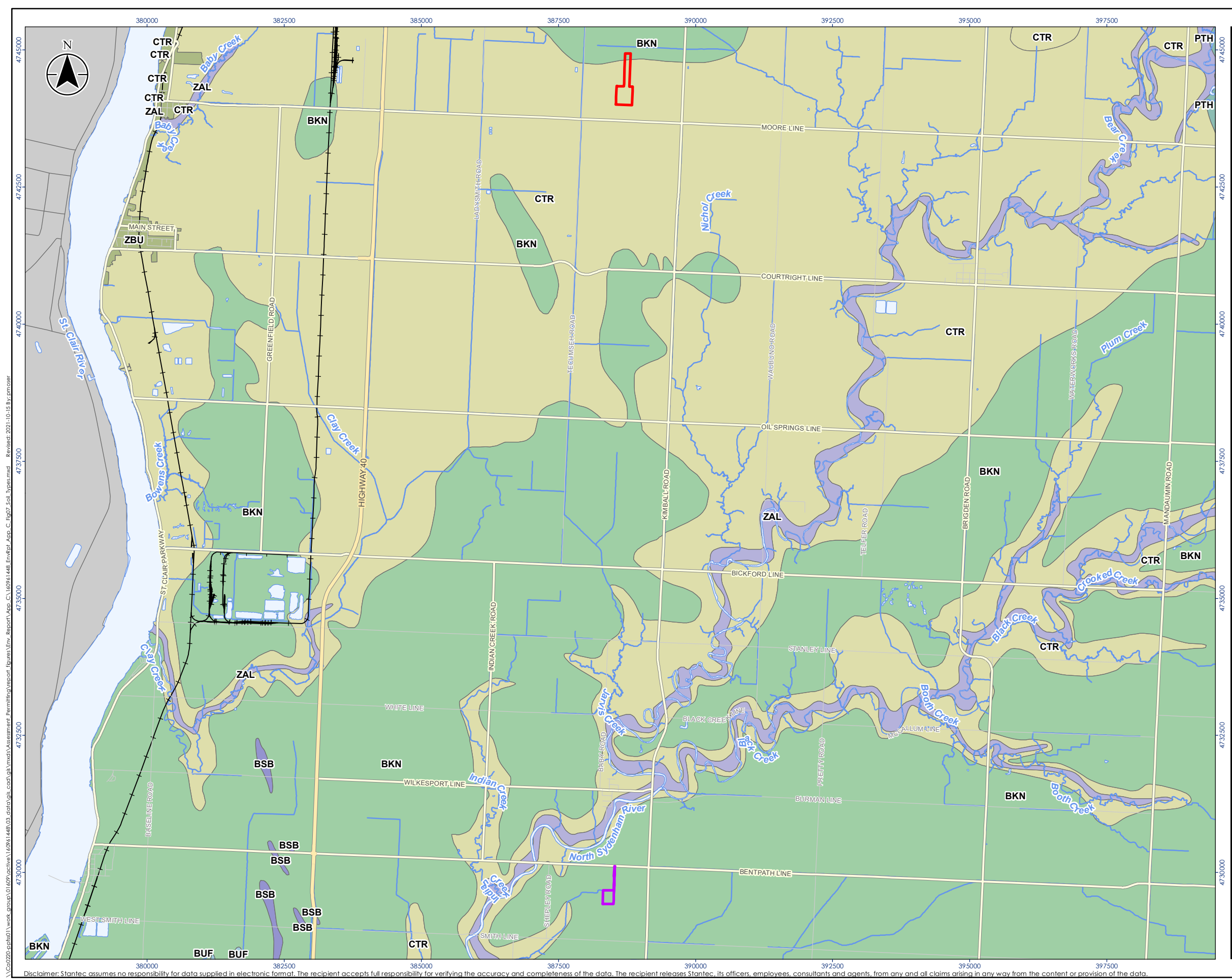
Project Location
Township of
St. Clair

160961448 REVA
Prepared by PRM on 2021-10-15
Technical Review by KG on 2021-10-15

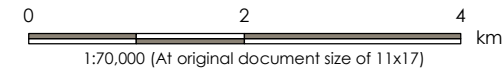
Client/Project
Enbridge Gas Inc.
Coveny and Kimball-Colinville Well Drilling Project

Figure No.
6

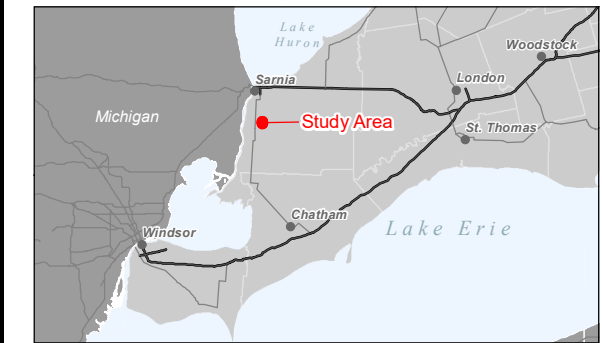
Title
Aggregate and Petroleum Resources



- Legend
- Study Area of TKC 68
 - Study Area of TCV 7
 - Expressway / Highway
 - Major Road
 - Minor Road
 - Railway
 - Watercourse
 - Waterbody
- Soil Type
- Brookston Clay (BKN)
 - Brisbane Loam (BSB)
 - Burford Loam (BUF)
 - Caistor Clay (CTR)
 - Perth Clay (PTH)
 - Bottom Land (ZAL)
 - Built Up Area (ZBU)



- Notes
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Project Location
Township of
St. Clair

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Prepared by PRM on 2021-10-15
Technical Review by KG on 2021-10-15

Client/Project
Enbridge Gas Inc.
Coveny and Kimball-Colinville Well Drilling Project

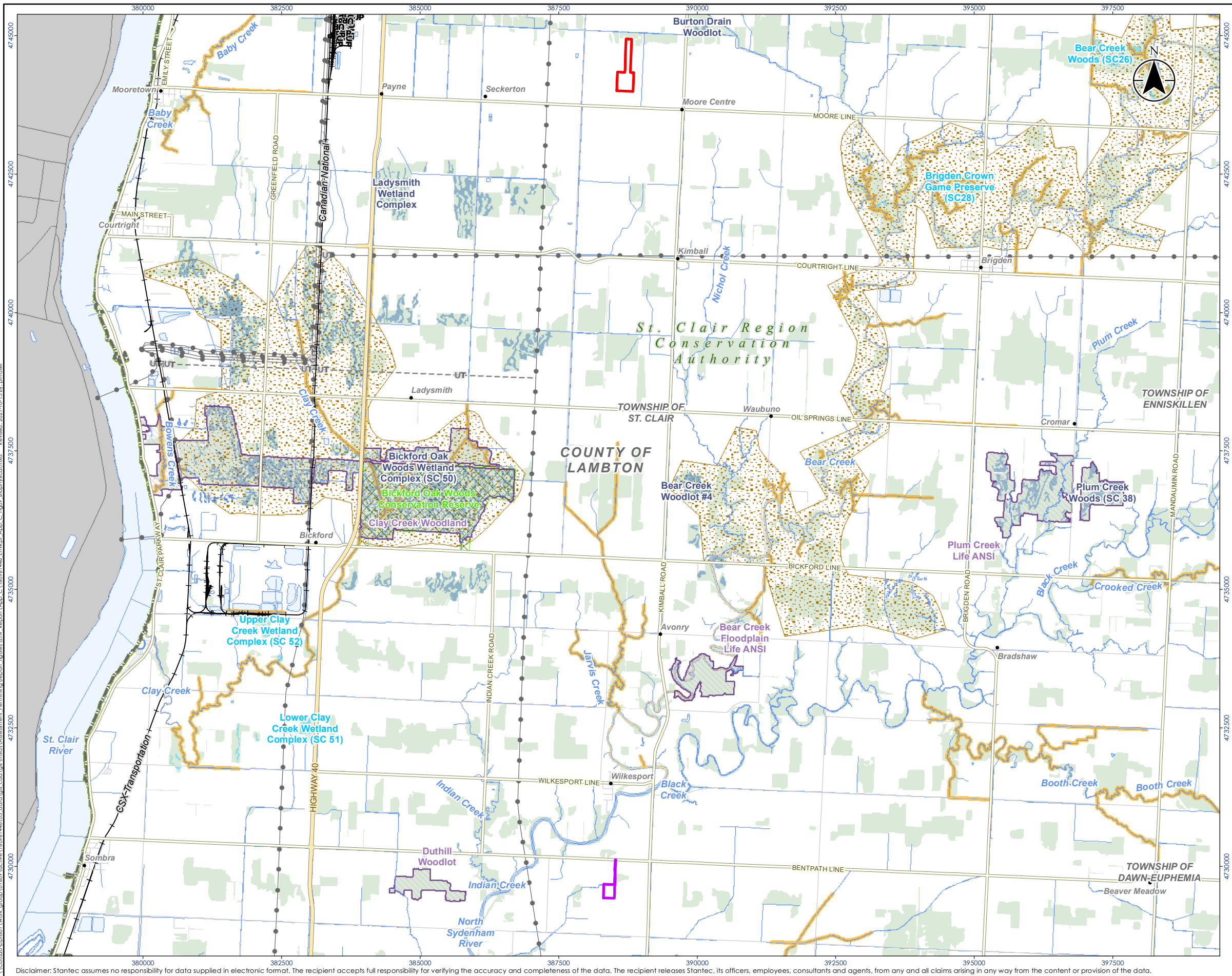
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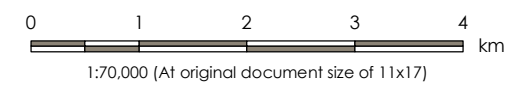
Title

Soil Types

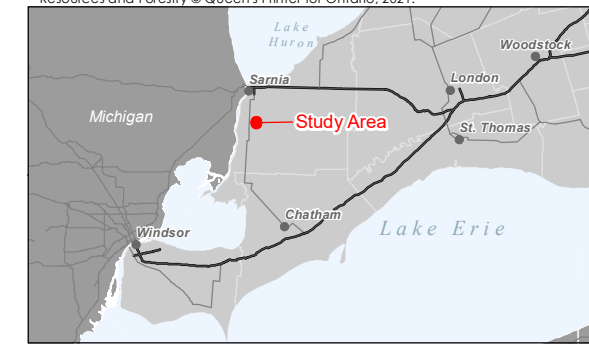
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- Legend**
- Study Area of TKC 68
 - Study Area of TCV 7
 - Expressway / Highway
 - Major Road
 - Minor Road
 - Railway
 - Hydro Line
 - UP- Unknown Pipeline
 - UT- Unknown Transmission Line
 - Thermal Regime, Warm
 - Constructed Drain
 - Watercourse (Permanent)
 - Waterbody
 - Wetland, Provincially Significant
 - Wetland, Other Evaluated
 - ANSI, Life Science
 - Conservation Area Administrative Boundary
 - Conservation Reserve (Regulated)
 - Deer Wintering Area
 - Thermal Regime, Warm
 - Wooded Area
 - Municipal Boundary, Upper
 - Municipal Boundary, Lower



- Notes**
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Project Location: Township of St. Clair
Prepared by PRM on 2021-10-15
Technical Review by KG on 2021-10-15

Client/Project: Enbridge Gas Inc.
Coveny and Kimball-Colinville Well Drilling Project

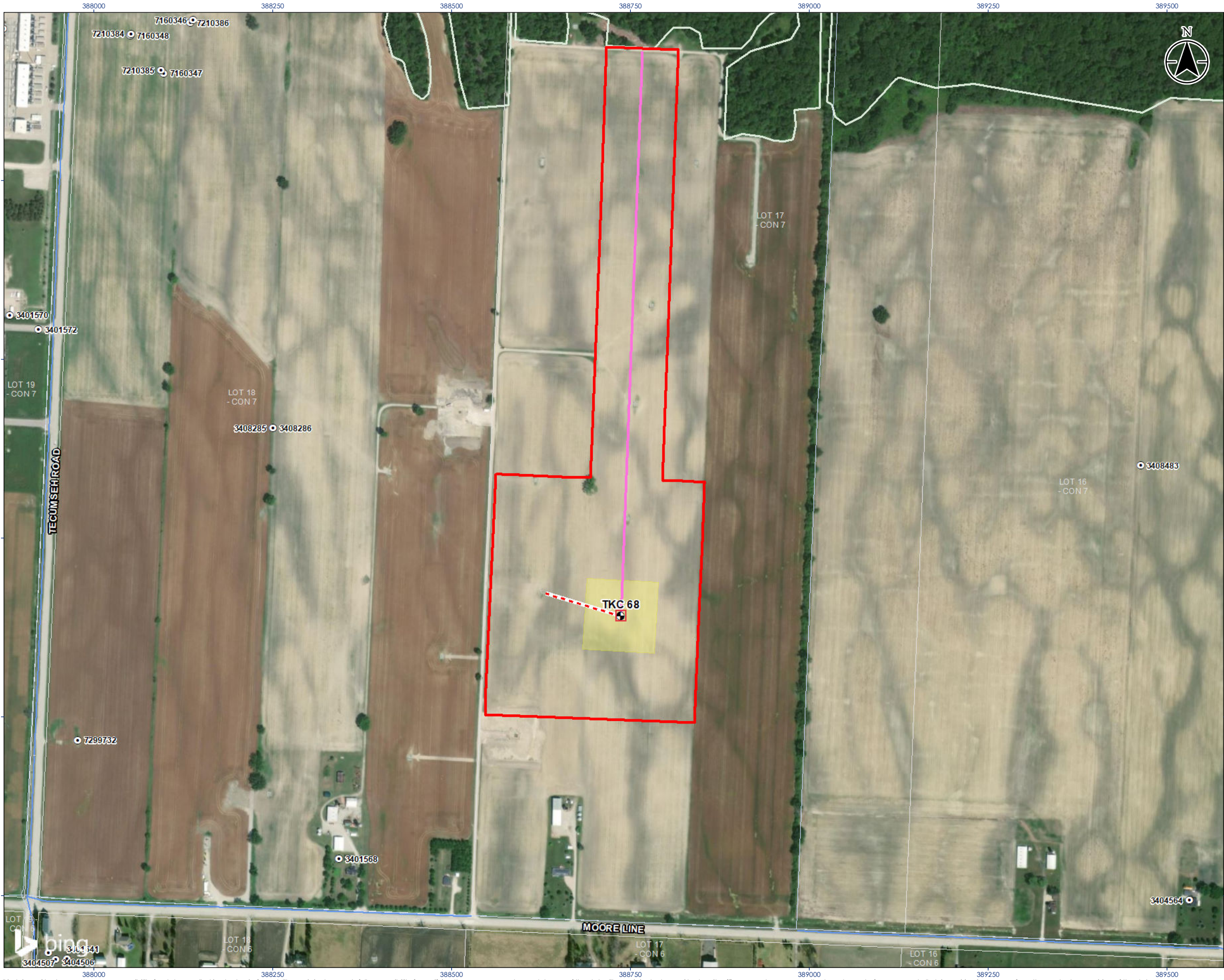
Figure No.: **9**
Title: **Biophysical**

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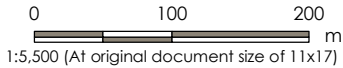
APPENDIX D:

Mitigation Photomosaic

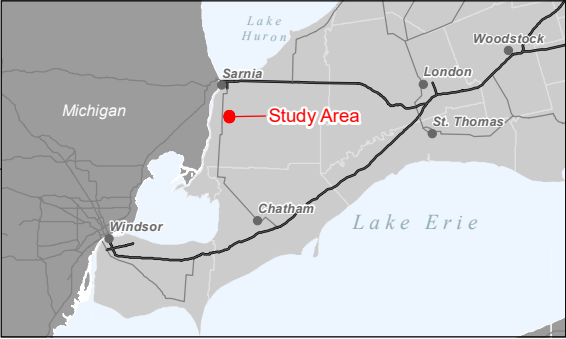
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- Legend
- TKC 68 Study Area - See Notes 2-20
 - Constructed Drain
 - Watercourse
 - Wooded Area
 - Lot/Concession Boundary
- Project Components
- Well
 - Permanent Access
 - Proposed Connecting Pipeline
 - Permanent Pad (approx. 60 m²)
 - Temporary Pad (approx. 10,000 m²)



- Notes
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 3. Orthoimagery © © 2021 Microsoft Corporation © 2021 Maxar © CNES (2021) Distribution Airbus DS



Project Location
Township of
St. Clair

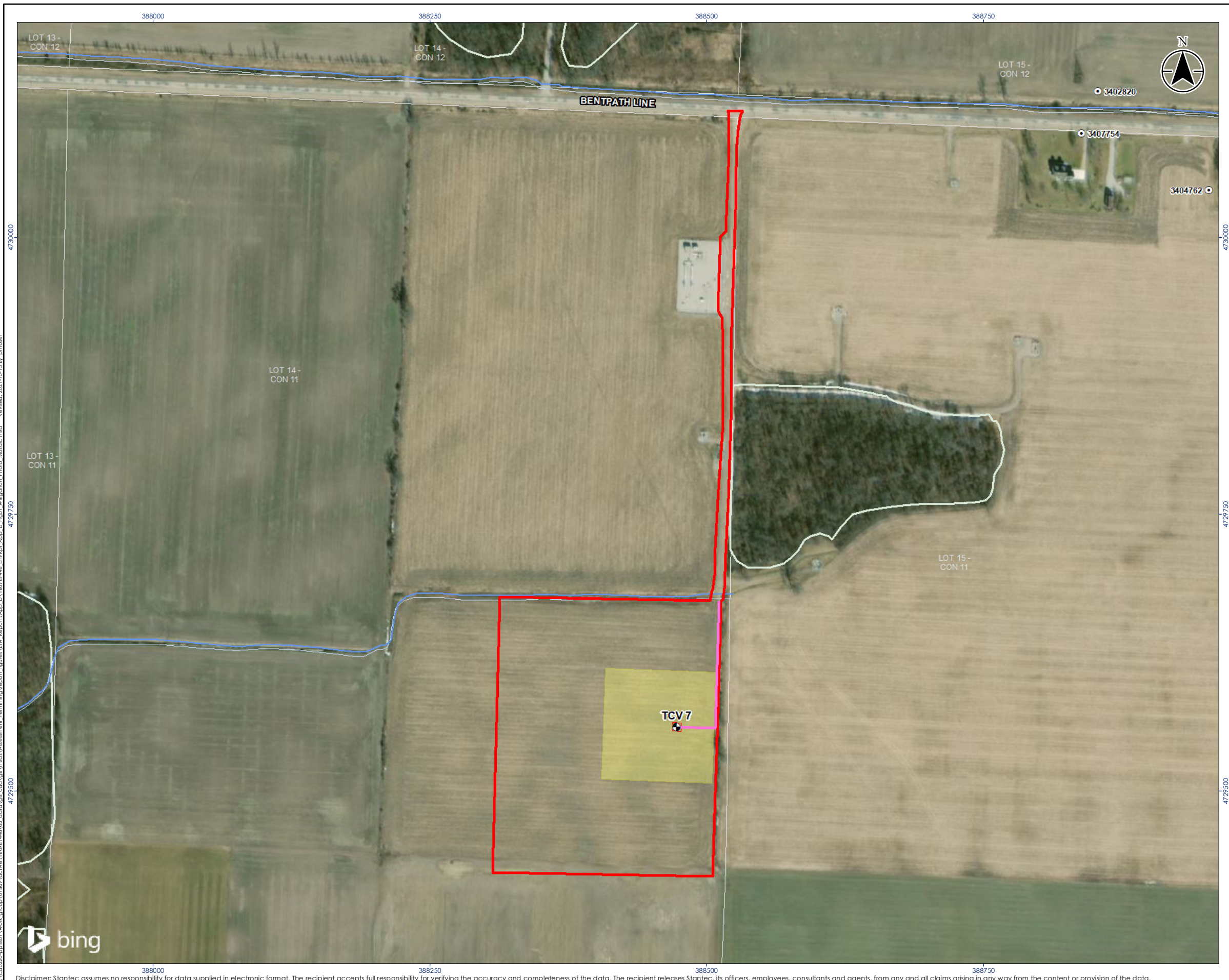
160961448 REVA
Prepared by PRM on 2021-10-15
Technical Review by KG on 2021-10-15

Client/Project
Enbridge Gas Inc.
Coveny and Kimball-Colinville Well Drilling Project






Figure No.
D-1

Title
**Mitigation Photo Mosaic TKC 68
Project Location**






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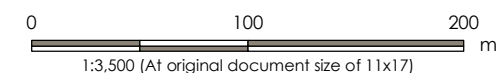


Legend

-  TCV 7 Study Area - See Notes 2-19 and 21 & 22
 Constructed Drain
 Watercourse
 Wooded Area
 Lot/Concession Boundary

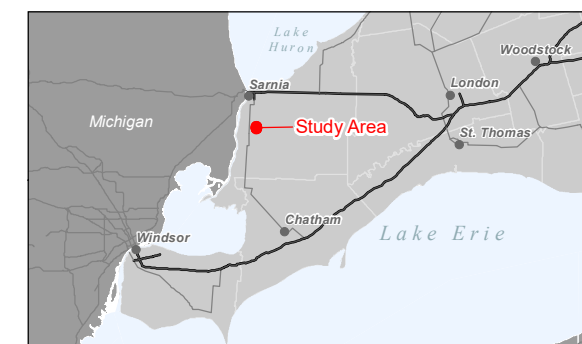
Project Components

-  Well
 Permanent Access
 Proposed Connecting Pipeline
 Permanent Pad (approx. 60 m²)
 Temporary Pad (approx. 10,000 m²)



Notes

- Notes
1. Coordinate System: NAD 1983 UTM Zone 17N
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Project Location 160961448 REVA
Township of Prepared by PRM on 2021-10-15
St. Clair Technical Review by KG on 2021-10-15

Client/Project
Enbridge Gas Inc.
Coveny and Kimball-Colinville Well Drilling Project

Figure No.

D-2

Title

Mitigation Photo Mosaic TCV 7
Project Location

Mitigation Notes

- 1.** A private well survey should be conducted to assess domestic groundwater use near the Project and a private well monitoring program may be recommended for residents who rely on overburden groundwater supply for domestic use. This monitoring program may include pre--construction water quality monitoring as well as water level monitoring, if available. Should a private water well be affected by project construction, a potable water supply should be provided, and the water well should be repaired or restored as required. Refer to Section 3.3.3, Table 4.1 of the ER when working near groundwater features.
- 2.** Construction should be kept to the shortest practical period.
- 3.** All required approvals and permits will be obtained prior to construction.
- 4.** 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, to make recommendations for the management of excess soils. Refer to Section 3.3.5, Table 4.1 of the ER.
- 5.** 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.
- 6.** 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. Refer to Section 3.3.2, Table 4.1 of the ER.
- 7.** Equipment and vehicles should yield to wildlife, fencing should be erected around deep excavations to prevent wildlife entrapment, and if wildlife are encountered during construction, personnel are required to move away from the animal and wait for the animal to move off the construction site. To reduce impacts on wildlife, wildlife habitat, and SAR, follow additional mitigation and protective measures outlined in Section 3.4.3, Table 4.1 of the ER and any mitigations measures or permit conditions not identified in the ER that are required.
- 8.** Enbridge Gas will follow internal procedures and communication protocols to identify and avoid adverse impacts to existing infrastructure in the DSAs. Refer to Section 3.3.4, Table 4.1 of the ER.
- 9.** Motorized construction equipment should be equipped with mufflers. 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. To the greatest extent activities that could create noise should be restricted to daylight hours and adhere to local noise by-laws. Sources of continuous noise, such as portable generators, should be shielded or situated to reduce disturbance to residents and businesses. To reduce noise and air emissions that may result from project construction, refer further mitigation and protective measures outlined in Section 3.5.2, Table 4.1 of the ER.
- 10.** The construction contractor should implement a site-specific waste collection and disposal management plan as per Section 3.5.7, Table 4.1 of the ER.

- 11.** To reduce impacts to soil and soil capability, follow mitigation and protective measures outlined in Section 3.3.5, Table 4.1 of the ER.
- 12.** In consultation with the landowner and an agrologist, Enbridge Gas will develop and implement an agricultural soil sampling plan for potential pests and/or diseases that are known to the area. If the results indicate an issue or concern, in consultation with the landowner, Enbridge Gas will work with the agrologist to develop a best practice protocol. Refer to Section 3.3.7 of the ER.
- 13.** Any imported topsoil used for rehabilitation will also have a composite sample analyzed for identified concerns before it is placed on the easement. Refer to Section 3.3.7 of the ER.
- 14.** 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. Refer to Section 3.5.4, Table 4.1 of the ER.
- 15.** Follow mitigation measures outlined in Section 3.5.4, Table 5.1 of the ER to reduce impacts on community services and infrastructure.
- 16.** Construction should be restricted to daylight hours where possible to minimize disturbances to residents and businesses.
- 17.** ESC and stabilization measures should be maintained during construction, restoration, and rehabilitation until the site is established. Where evidence of erosion exists, corrective control measures should be implemented as soon as conditions permit.
- 18.** A Stage 1 and Stage 2 AA will be conducted on lands disturbed by the Project. The results of the assessments will determine appropriate mitigation and protective measures for the sites. Where feasible for the Project, archaeological sites that are determined to retain further cultural heritage value and interest may be mitigated in whole or in part by avoidance and protection/preservation measures. Where avoidance and protection/preservation measures are not feasible, archaeological resources may be mitigated in whole or in part by excavation.
- 19.** 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. Construction is to follow the Project-specific EASR or PTTW.
- 20.** At the TKC 68 Project location, Enbridge Gas should undertake consultation with landowners of agricultural fields to confirm where systematic tile drainage is present. If tile drainage is present, Enbridge Gas should undertake standard mitigation during ground disturbance, as per Section 3.3.6, Table 4.1 of the ER.
- 21.** TCV 7 is located a SCRCA regulated area. Enbridge Gas will be required to follow the mitigation and protection measures outlined in the SCRCA permit application, Environmental Protection Plan, and any SCRCA permit conditions.
- 22.** There is one private water well near the TCV 7 Project location. Consultation should occur with landowners to confirm distance of the drilling for the new well at the Convey DSA to the private water well. Should drilling occur within 100m of the active water well, Enbridge Gas should consult a hydrogeologist to determine whether mitigation and/or monitoring may be warranted. Refer to section 3.3.1, Table 4.1 of the ER.



Project Location	160961448 REVA
Township of	Prepared by PRM on 2021-10-07
St. Clair	Technical Review by KG on 2021-10-07

Client/Project
ENBRIDGE GAS INC.
COVENY AND KIMBALL-COLINVILLE WELL DRILLING PROJECT

Tile No.

D-3

Title

Mitigation Notes